



Louisville Metro Air Pollution Control District  
701 West Ormsby Avenue, Suite 303  
Louisville, Kentucky 40203-3137



## Title V Operating Permit

Permit No.: O-0870-17-V (R2)

Plant ID: 0870

Effective Date: 12/19/2017

Expiration Date: 12/31/2022

Revision 1 Date: 08/02/2018

Revision 2 Date: 10/13/2020

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

|                                                 |                                                 |
|-------------------------------------------------|-------------------------------------------------|
| <b>Source:</b> GE Appliances, A Haier Company – | <b>Owner:</b> Haier US Appliance Solutions, Inc |
| Appliance Park                                  |                                                 |
| 4000 Buechel Bank Rd.                           | 4000 Buechel Bank Rd,                           |
| Louisville, KY 40031                            | Louisville, KY 40031                            |

The applicable procedures of District Regulation 2.16 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than eighteen months and no later than six months prior to the expiration date.

Application No.: See **Application and Related Documents** table.

Administratively Complete Date: 10/27/2014

Public Notice Date: 09/23/2017, 04/14/2018, 08/29/2020

Proposed Permit Date: 09/23/2017, 04/14/2018, 08/29/2020

Permit writer: Rick Williams

Air Pollution Control Officer  
10/13/2020

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### Permit Revisions and Changes

| Permit No.     | Public Notice Date | Issue Date | Change Type | Description/Scope                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------|--------------------|------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 155-97-TV      | 09/07/2009         | 01/22/2010 | Initial     | Initial issuance of the permit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 155-97-TV(R1)  | NA                 | 01/22/2010 | Admin.      | Incorporate construction permits # 72-89-C(R1), 73-89-C(R1), 19-91-C (R1), 145-98-C(R1), 201-01-C(R1), 216-93-C(R1), 405-92-C(R1), 334-92-C, 22-91-C(R1), 494-08-C (R1), 129-09-C (R1), and 652-08-C (R1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 155-97-TV (R2) | NA                 | 09/17/2013 | Admin.      | Incorporate construction permits # 207-09-C(R1), 34677-12-C, 33733-11-C, 33371-11-C, 33029-11-C, 33262-11-C, 33667-11-C, 36340-12-C, 29161-10-C(R3), 33022-11-C, 32675-11-C, 33318-11-C, 33671-11-C, 33373-11-C(R1), and 34823-12-C. Updated TAC language and the Insignificant Activities List.<br>Updated Boiler #6 (U81) description to reflect 1998 boiler modification<br>Removed U90 as equipment has been removed<br>Removed U101, U102, and U103 from emission Unit U100 – 103, as equipment has been removed, and renamed emission unit to U100<br>Removed Regulations 7.08 and 7.09 from emission unit U111 as the District has determined these were not applicable regulations for emergency generators<br>Removed emission points 176-00 and 73-87 from emission unit U-Miscellaneous as the equipment has been removed |
| O-0870-17-V    | 09/23/2017         | 12/19/2017 | Renewal     | Permit Renewal.<br>Incorporate construction permits 37206-13-C(R1), TV-14-1001-C, TV-14-1012-C, and C-0870-1004-14-V.<br>Removed U108, U200, U210, U220, and U230 as equipment has been removed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| Permit No.          | Public Notice Date | Issue Date | Change Type | Description/Scope                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------|--------------------|------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| O-0870-17-V<br>(R1) | 04/14/2018         | 08/02/2018 | Admin.      | <p>Correct typographical errors noted throughout the permit.<br/>                     Add EP-IA8 and conditions for U530.<br/>                     Add insignificant activities from applications 90311 and 90793 to the IA table.<br/>                     Add emission points IA02-25 – IA02-31 to the equipment table in emission unit “IA02 – Regulation 7.25 Process Equipment”.<br/>                     Updated default control efficiency for C109 from 95% to 98% per current District policy<br/>                     Add emission point IA03-20 to emission unit “IA03-Regulation 7.08 Process Equipment”.<br/>                     Several Items in the Calculation Methodology tables:<br/>                     - Correct the natural gas emission factors in the introduction to the tables<br/>                     - Correct the methodologies for emission points EP309, AP3-310a, EP510, 35-04, IA02-12, and IA03-18<br/>                     - Add calculation methodologies for the emission points added in this permit revision, noted above.<br/>                     - Updated the tables in the Comments section of the Plantwide Requirements to incorporate updated cancer risk factors, Rc for U510, based on revised EA Demo submitted by the company.<br/>                     - Added cumene emission limit requirements for U510</p> |
|                     |                    |            | Sig.        | <p>Added Testing Requirements to Emission Units U42 and U310</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| O-0870-17-V<br>(R2) | 08/29/2020         | 10/13/2020 | Admin.      | <p><u>08/21/2018 IA activity</u><br/>                     U81&amp;82 - Add 3 Airco NG-fired indirect heat exchangers @ 2.0 MMBtu/hr each and remove AP-4 Boilers #1 and #2<br/>                     IA01 – Add 2 direct-fired natural gas combustion systems @ 0.14 MMBtu/hr each</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Permit No. | Public Notice Date | Issue Date | Change Type | Description/Scope                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------|--------------------|------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            |                    |            |             | <p><u>02/13/2019 IA activity</u> -<br/>                     U81&amp;82 - Add Eclipse ImmersoPak IP008 NG-fired indirect heat exchanger @ 2.05 MMBtu/hr on Line 9</p> <p>Removed the following equipment:<br/>                     Boiler #6 (U81&amp;82, EP908);<br/>                     Milacron Cabinet Line Extruder (U100, EP540); AP1 Tub grinder, 1 of 2 (EU-Miscellaneous, EP32675-11); AP2 Zoneline Mastic Curing Operation (EU-IA02, EP-IA02-14)</p> <p><u>02/20/2019 IA activity</u> -<br/>                     Add Markforged Metal-X 3D printer, Wash-1 debinder, Sinter-1 sintering furnace. (IA02)</p> <p><u>06/11/2019</u> - Incorporate Construction permit C-0870-1023-19-V sheet metal drawing lubricators (U540).</p> <p><u>07/23/2019</u> - Incorporate Operational Flexibility</p> <p><u>09/19/2019 Incorporate Construction permit C-870-19-0023V</u><br/>                     Add Belco curing oven with 2 Maxon LE35 burners @ 3.5 MMBtu/hr each (U01, EP100B-1) and one Heraeus sintering oven a natural gas infra-red catalytic heater @ 1.95 MMBtu/hr (U01, EP100D)<br/>                     Remove electric bake oven (U01, EP100B)</p> <p>02/21/2020 – Add 4 Quality Scan spray booths for dimensional verification (insignificant activities IA-02)</p> <p>Updated TAC general conditions to provide clarity</p> |

| Permit No. | Public Notice Date | Issue Date | Change Type | Description/Scope                                                                                                                                                                                               |
|------------|--------------------|------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            |                    |            |             | <p>Clarified PSD/NSR avoidance limit for PM/PM<sub>10</sub> in U109</p> <p>Updated format and standard language throughout permit</p> <p>Removed Emission Unit U04 - equipment removed from service in 2019</p> |

### Construction Permit Summary

| Permit No.       | Issue Date | Description                                                                                                                                                                                                                                     |
|------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| C-0870-1023-19-V | 06/11/2019 | Add drawing compound lubricators U540, EP540-1 and 540-2                                                                                                                                                                                        |
| C-0870-0023-19-V | 09/19/2019 | <p>Add Belco curing oven with 2 Maxon LE35 burners @ 3.5 MMBtu/hr each (U01, EP100B-1) and one Heraeus sintering oven a natural gas infra-red catalytic heater @ 1.95 MMBtu/hr (U01, EP100D)</p> <p>Remove electric bake oven (U01, EP100B)</p> |

### Operational Flexibility Approvals

| Document Number  | Date Approved | Description of the Approved Request                                                                     |
|------------------|---------------|---------------------------------------------------------------------------------------------------------|
| 3022, 3024, 3029 | 07/23/2019    | Allows GE Appliances to use colored basecoat powders in U530-EP5 Clear Coat Electrostatic Powder Booth. |

### Application and Related Documents

| Document Number | Date                   | Description                                     |
|-----------------|------------------------|-------------------------------------------------|
| 66737           | 08/28/2014             | TV Renewal Application                          |
| 66910, 66964    | 09/10/2014, 09/12/2014 | IA Application for two 900 kW emergency engines |

| <b>Document Number</b> | <b>Date</b>             | <b>Description</b>                                                                                                                                        |
|------------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 67365                  | 09/30/2014              | District Response to IA Fire Pump Engine Application                                                                                                      |
| 68193                  | 11/25/2014              | IA Application for a natural gas burner to heat a rinse tank AP1 Hot Water Rinse Laundry Tubs                                                             |
| 68194                  | 11/25/2014              | Application for spray booth with filters in AP5, construction permit C-0870-1004-14-V                                                                     |
| 68195                  | 11/25/2014              | IA Application for minor repairs with aerosol paints in AP5                                                                                               |
| 68339                  | 12/08/2014              | District Approval of AP1 Hot Water Rinse Laundry Tubs                                                                                                     |
| 68343 & 69245          | 12/09/2014 & 02/05/2015 | Original and Revised Application for AP1 Emergency Generator Engine EP111a with updated EA Demo                                                           |
| 69742                  | 02/26/2015              | Application to convert construction permits to operating permits for the following permits: 37206-13-C(R1), TV-14-1001-C, and C-0870-1004-14-V            |
| 69935                  | 03/04/2015              | IA Application for metallic powder coating pre-wash in AP2                                                                                                |
| 69934                  | 03/05/2015              | IA Application for 50 kW diesel emergency backup generator engine in AP24                                                                                 |
| 70083                  | 03/13/2015              | IA Application for metallic powder coating quality test operation in AP2                                                                                  |
| 70305                  | 03/25/2015              | District Approval Response to Multiple IA request                                                                                                         |
| 70963                  | 04/28/2015              | IA Application for several injection molding plastics recycling systems                                                                                   |
| 71118                  | 05/12/2015              | Company Response to information request for IA equipment                                                                                                  |
| 72074                  | 06/12/2015              | IA Application for ultrasonic cleaning cabinet                                                                                                            |
| 72122                  | 06/18/2015              | District Approval Response to IA ultrasonic cleaning cabinet                                                                                              |
| 73083                  | 08/18/2015              | Application to convert construction permits to operating permits for the following permits: TV-14-1012-C (includes updated emission point and stack data) |
| 73130                  | 08/20/2015              | Revised response to Regulation 5.21 BAC Changes                                                                                                           |
| 73185                  | 08/24/2015              | 2 <sup>nd</sup> Revised response to Regulation 5.21 BAC Changes                                                                                           |
| 73480                  | 08/27/2015              | Updated IA List                                                                                                                                           |
| 73340                  | 08/31/2015              | District Response to Revised Regulation 5.21 BAC Changes-exceeding EA Goals                                                                               |

| <b>Document Number</b> | <b>Date</b>             | <b>Description</b>                                                                                                |
|------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------|
| 73413                  | 09/8/2015               | Company's Response to District STAR letter of 8/31/2015                                                           |
| 73850                  | 10/12/2015              | Application for HEWH Shell Grit Blaster IA determination                                                          |
| 74056                  | 10/19/2015              | AP2 Metallic STAR Supplement                                                                                      |
| 74057                  | 10/22/2015              | AP2 Metallic STAR EA Approval                                                                                     |
| 74058                  | 10/22/2015              | Shell Tank Grit Blaster Supplemental Information                                                                  |
| 74078                  | 10/26/2015              | District Approval of Shell Tank Grit Blaster IA determination                                                     |
| 74390                  | 11/18/2015              | Updated IA List                                                                                                   |
| 74391                  | 11/19/2015              | Additional Information on IA process heaters and Boiler MACT                                                      |
| 74486                  | 12/01/2015              | Request for Certificate of Conformity Documentation                                                               |
| 74526                  | 12/02/2015              | Application for Sanding of defective parts                                                                        |
| 74610                  | 12/11/2015              | District Approval of IA for Sanding Operation of defective parts                                                  |
| 74682                  | 12/17/2015              | Application for 2.05 MMBtu/hr process heater                                                                      |
| 74712                  | 12/23/2015              | District Approval of 2.05 MMBtu/hr process heater as IA equipment                                                 |
| 74778 & 74885          | 01/07/2016 & 01/19/2016 | Company pre-draft review of TV renewal permit & Extension Request Approval of review time                         |
| 75140                  | 02/08/2016              | Company comments on pre-draft TV renewal permit                                                                   |
| 75818 & 75863          | 02/10/2016 & 03/14/2016 | District Request for Certificate of Authority issued by Kentucky Secretary of State & Second Request with Example |
| 76620                  | 04/14/2016              | Updated EA Demo                                                                                                   |
| 76718                  | 04/25/2016              | GE's request for a meeting to discuss company comments and District's response                                    |
| 76831                  | 04/26/2016              | Enamel Furnace (HEWH) modification                                                                                |
| 77176                  | 05/04/2016              | Questions regarding change of Name and Ownership                                                                  |
| 77106                  | 05/09/2016              | District Response to HEWH IA equipment approval                                                                   |

| <b>Document Number</b>      | <b>Date</b>                                | <b>Description</b>                                                                                          |
|-----------------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| 77107                       | 05/09/2016                                 | District Response to new coating Loctite 648 STAR EA Demo received 4/14/2016                                |
| 77177                       | 05/10/2016                                 | Clarification on IA HEWH Furnace heat input                                                                 |
| 77418                       | 05/19/2016                                 | District Response for IA determination HEWH Furnace                                                         |
| 77665                       | 06/07/2016                                 | Application for Ownership and Name Change to Haier US Appliance Solutions, Inc.                             |
| 77788                       | 06/13/2016                                 | District Response regarding NESHAPs change of ownership needs to be submitted to EPA also                   |
| 78662 &<br>78714 &<br>78770 | 07/29/2016 &<br>08/03/2016 &<br>08/04/2016 | Request to keep U108 in TV renewal permit & District Response & Additional Information submitted by Company |
| 78906                       | 08/11/2016                                 | Additional Information related to updated IA list                                                           |
| 78905                       | 08/15/2016                                 | Additional Information related to updated IA list                                                           |
| 80843                       | 08/19/2016                                 | MSDS/SDS for VOC storage tanks                                                                              |
| 80842                       | 08/24/2016                                 | Updated IA List regarding VOC storage tanks and IA combustion sources                                       |
| 80062                       | 10/13/2016                                 | Updated EA Demo – BAC Changes for MIBK                                                                      |
| 80402                       | 11/09/2016                                 | Application for 5.3 MMBtu/hr process heater                                                                 |
| 80403                       | 11/09/2016                                 | Application for 2.05 MMBtu/hr process heater                                                                |
| 80439                       | 11/10/2016                                 | District Response agreement to IA determination of 5.3 MMBtu/hr and 2.05 MMBtu/hr process heaters           |
| 80455                       | 11/14/2016                                 | Additional Information on the 5.3 MMBtu/hr process heater                                                   |
| 80480                       | 11/15/2016                                 | Application for 7.5 MMBtu/hr process heater                                                                 |
| 80525                       | 11/18/2016                                 | District approval of IA determination for 7.5 MMBtu/hr process heater                                       |
| 80594                       | 11/23/2016                                 | Updated IA List                                                                                             |
| 80861                       | 12/14/2016                                 | Updated IA List                                                                                             |
| 80860                       | 12/15/2016                                 | Updating process heater capacities                                                                          |
| 80957                       | 12/21/2016                                 | Updated TV Application Pages for U30 process heaters, AP-100A and Ap-100B                                   |
| 81095                       | 01/04/2017                                 | Updated IA List for 2.05 MMBtu/hr process heater                                                            |
| 81548                       | 01/30/2017                                 | Correspondence related to clarification on NOx RACT Plan                                                    |
| 82458                       | 03/08/2017                                 | Response to MIBK BAC Changes from 10/13/2016                                                                |
| 82877                       | 03/21/2017                                 | Company request for status update on TV renewal permit                                                      |

| <b>Document Number</b> | <b>Date</b>                          | <b>Description</b>                                                                                                                       |
|------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| 84522, 84544, & 84545  | 06/02/2017 and 06/05/2017            | Notification of Equipment changes – and Revised STAR EA Demo for U510.                                                                   |
| 84548                  | 06/05/2017                           | Company request to review pre-public comment period                                                                                      |
| 84705                  | 06/08/2017                           | Company response to request for Updated Application for name change                                                                      |
| 84843, 84896, & 85036  | 06/19/2017, 06/20/2017, & 06/28/2017 | Company correspondence regarding injection molding and Regulation 7.25 applicability                                                     |
| 85625                  | 08/03/2017                           | Correspondence regarding central vacuum system                                                                                           |
| 85802                  | 08/09/2017                           | Application for Central Vacuum System                                                                                                    |
| 85803                  | 08/09/2017                           | Application for Ultrasonic Cleaner                                                                                                       |
| 85943                  | 08/15/2017                           | District Agreement that Central Vacuum System and Ultrasonic Cleaner are Insignificant Activities                                        |
| 86014                  | 08/16/2017                           | Correspondence regarding central vacuum system                                                                                           |
| 87383                  | 09/19/2017                           | District Response to Injection Molding and Regulation 7.25 Applicability                                                                 |
| 88308                  | 10/20/2017                           | Company comments on public comment version of TV permit                                                                                  |
| 89208                  | 11/21/2017                           | Correspondence regarding status of draft TV permit                                                                                       |
| 88782                  | 11/07/2017                           | Email record of phone call for clarification of permitting requirements for burner addition.                                             |
| 88993                  | 11/08/2017                           | Application to add two ~4 MMBtu/hr burners for dryoff ovens.                                                                             |
| 89111                  | 11/05/2017                           | Correspondence clarifying requirements for Insignificant Activity addition                                                               |
| 89175                  | 11/20/2017                           | Letter from APCD approving burners as IA.                                                                                                |
| 90186                  | 01/22/2018                           | Communication regarding stack identification for new burners                                                                             |
| 90198                  | 01/23/2018                           | Email to GEA defining requirements for addition of case-by-case (Regulation 1.02 §1.38.1.2) insignificant activities.                    |
| 90304                  | 01/31/2018                           | Transmittal of draft permit incorporating new burners for dryoff ovens.                                                                  |
| 90449                  | 02/06/2018                           | Email conforming telephone conversation to delay permit revision R1 until additional case-by-case Insignificant Activities can be added. |
| 91216                  | 03/19/2018                           | Email confirmation of telephone call, confirming cancellation of plans to install burners covered in application 88993                   |

| <b>Document Number</b>    | <b>Date</b>   | <b>Description</b>                                                                                                           |
|---------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------|
| 90311                     | 02/01/2018    | Application for addition of an isopropyl alcohol (IPA) wiping operation as a case-by-case insignificant activity.            |
| 90404                     | 02/02/2018    | APCD initial IA determination for IPA wiping operation and determination of 40 CFR 63, subpart NNNN applicability.           |
| 90448                     | 02/01/2018    | Clarification question for IPA wiping operation.                                                                             |
| 91683                     | 02/01/2018    | Attachment to #90448                                                                                                         |
| 91050                     | 02/13/2018    | GEA appeal of APCD 40 CFR 63, subpart NNNN applicability determination.                                                      |
| 91051                     | 02/27/2018    | APCD response to GEA NNNN MACT appeal.                                                                                       |
| 90398                     | 02/05/2018    | Email from GEA identifying Calculation Methodology (Appendix D) revisions required.                                          |
| 90716                     | 02/15/2018    | APCD response to GEA request for calculation methodology revisions.                                                          |
| 90765                     | 02/19/2018    | Additional correction to calculation methodology for EP309.                                                                  |
| 90793                     | 02/20/2018    | Application for eight additional; case-by-case IA additions.                                                                 |
| 91872                     | 05/03/2018    | GE submission of revised EA Demo for U510                                                                                    |
| 92011                     | 05/15/2018    | APCD review of GE revised EA Demo for U510                                                                                   |
| 91924                     | 05/09/2018    | U109 Throughput determination – company submission                                                                           |
| 92684                     | 06/25/2018    | APCD proposed emission calculations for U109                                                                                 |
| 92857                     | 07/09-10/2018 | Additional emails regarding U109 emission calculations                                                                       |
| 92305                     | 05/14/2018    | Company data regarding Door-in-Door VOC content                                                                              |
| 92004                     | 05/14/2018    | Company comments on draft permit                                                                                             |
| <i>17397</i> <sup>1</sup> | 08/02/2018    | APCD Response to GE comments                                                                                                 |
| <i>17394</i>              | 08/02/2018    | APCD transmittal of final documents to US-EPA                                                                                |
| <i>17393</i>              | 08/02/2018    | APCD transmittal of final documents to GE Appliances (GEA)                                                                   |
| <i>17744</i>              | 08/21/2018    | Application for installation of new natural gas-fired indirect heat exchangers (as IA) and removal of AP-4 boilers #1 and #2 |
| <i>17882</i>              | 08/22/2018    | Approved PTE for new equipment                                                                                               |
| <i>17745</i>              | 08/23/2018    | Transmittal of APCD approval of new equipment as IA                                                                          |
| <i>21029</i>              | 01/04/2019    | GEA inquiry regarding metallic 3D printing equipment                                                                         |

<sup>1</sup> All the document numbers prior to this point refer to the document numbers assigned by the eB document manager system. This and all subsequent document numbers refer to those assigned by the OnBase document manager system. These are also noted by italic style numbers

| Document Number | Date       | Description                                                                            |
|-----------------|------------|----------------------------------------------------------------------------------------|
| 21329           | 02/20/2019 | Application for IA metallic 3D printer and associated equipment installation           |
| 21378           | 02/22/2019 | Approved PTE for 3D printer                                                            |
| 21379           | 02/22/2019 | Transmittal of APCD approval of 3D printing equipment as IA                            |
| 21161           | 02/06/2019 | GEA notice of intent to remove Boiler #6 and other equipment.                          |
| 21239           | 02/13/2019 | Application for IA indirect heat exchanger                                             |
| 21350           | 02/21/2019 | Approved PTE for IA indirect heat exchanger                                            |
| 21326           | 02/19/2019 | APCD approval of IA addition and verification of Boiler #6 and other equipment removal |
| 21864           | 03/20/2019 | Application for drawing compound applicators                                           |
| 21881           | 03/22/2019 | APCD email with questions regarding drawing compound applicators                       |
| 21925           | 03/26/2019 | GEA response to APCD questions                                                         |
| 21988           | 03/27/2019 | APCD followup questions                                                                |
| 22009           | 03/28/2019 | Drawing compound MSDS from GEA                                                         |
| 21999           | 03/28/2019 | Emails regarding preferred numbering of new drawing compound applicator equipment      |
| 22008           | 03/29/2019 | Approved PTE for metal drawing compound                                                |
| 22175           | 04/09/2019 | Transmit draft permit to GEA for pre-public comment review                             |
| 22177           | 04/11/2019 | Emails regarding BACT update for drawing compound                                      |
| 22318           | 04/18/2019 | GEA submission of updated BACT                                                         |
| 22393           | 04/23/2019 | GEA comments on pre-public comment draft permit                                        |
| 22418           | 04/24/2019 | APCD response to GEA comments                                                          |
| 22466           | 04/30/2019 | Draft drawing compound applicator permit for public comment                            |
| 22462           | 04/30/2019 | Draft statement of basis for public comment                                            |
| 22463           | 04/30/2019 | Public notice, as published in <i>Courier Journal</i>                                  |
| 22460           | 04/30/2019 | Public comment transmittal to US-EPA                                                   |
| 22459           | 04/30/2019 | Public comment transmittal to GEA                                                      |
| 22927           | 06/11/2019 | Transmittal of final permit and associated documents to GEA                            |
| 22923           | 06/11/2019 | Final permit (C-0870-1023-19-V)                                                        |
| 22924           | 06/11/2019 | Final Statement of Basis (C-0870-1023-19-V)                                            |

| <b>Document Number</b> | <b>Date</b> | <b>Description</b>                                                                      |
|------------------------|-------------|-----------------------------------------------------------------------------------------|
| 2725                   | 07/02/2019  | Application for new natural gas-fired ovens                                             |
| 2965                   | 07/22/2019  | PTE for new NG-fired ovens                                                              |
| 3027                   | 07/24/2019  | Transmittal of pre-public comment draft permit to GEA for review                        |
| 23118                  | 08/07/2019  | GEA comments on pre-public comment draft permit                                         |
| 23119                  | 08/09/2019  | APCD response to GEA comments                                                           |
| 23292                  | 08/09/2019  | GEA application update for NF-fired ovens                                               |
| 23294                  | 08/09/2019  | Manufacturer's spec sheet – associate with doc# 23292                                   |
| 23287                  | 08/12/2019  | Public notice, as published in <i>Courier Journal</i>                                   |
| 23350                  | 08/13/2019  | Public comment transmittal to US-EPA                                                    |
| 23349                  | 08/13/2019  | Public comment transmittal to GEA                                                       |
| 117435                 | 09/19/2019  | Transmit final documents to GEA (C-0870-0023-19-V)                                      |
| 3022                   | 07/15/2019  | Operational Flexibility request                                                         |
| 3024                   | 07/16/2019  | MSDS relating to operational flexibility request                                        |
| 3029                   | 07/23/2019  | APCD transmittal of operational flexibility approval                                    |
| 130774                 | 02/11/2020  | Application for 4 Quality Scan Booths as insignificant activity                         |
| 132243                 | 02/19/2020  | Request for additional information <i>re:</i> emission unit placement                   |
| 132516                 | 02/21/2020  | Approval of IA request for quality scan booths.                                         |
| 132593                 | 02/21/2020  | Company response to request for emission point IDs for new paint booths                 |
| 134343                 | 3/9/2020    | Reminder of upcoming testing report deadline and clarification of equipment start date. |
| 141965                 | 04/06/2020  | APCD questions re: stack ID3s and injection molding press counts                        |
| 140079                 | 05/08/2020  | GE response to Stack ID and Injection molding press information                         |
| 140078                 | 05/08/2020  | Company submission of drawing lubricant usage test results                              |
| 140392                 | 05/13/2020  | APCD transmittal of proposed U540 language and follow up on injection molding presses   |
| 141860                 | 05/29/2020  | Company response to proposed U540 language and press count                              |
| 173488                 | 09/28/2020  | Company comments on draft/proposed permit                                               |
| 173487                 | 10/01/2020  | APCD reply to issues raised in GE cover letter for public comments transmittal          |

### Abbreviations and Acronyms

|                   |                                                                                     |
|-------------------|-------------------------------------------------------------------------------------|
| AP-42             | - AP-42, <i>Compilation of Air Pollutant Emission Factors, published by U.S.EPA</i> |
| APCD              | - Louisville Metro Air Pollution Control District                                   |
| BAC               | - Benchmark Ambient Concentration                                                   |
| BACT              | - Best Available Control Technology                                                 |
| Btu               | - British thermal unit                                                              |
| CEMS              | - Continuous Emission Monitoring System                                             |
| CFR               | - Code of Federal Regulations                                                       |
| CO                | - Carbon monoxide                                                                   |
| District          | - Louisville Metro Air Pollution Control District                                   |
| EA                | - Environmental Acceptability                                                       |
| gal               | - U.S. fluid gallons                                                                |
| GHG               | - Greenhouse Gas                                                                    |
| HAP               | - Hazardous Air Pollutant                                                           |
| Hg                | - Mercury                                                                           |
| hr                | - Hour                                                                              |
| in.               | - Inches                                                                            |
| lbs               | - Pounds                                                                            |
| l                 | - Liter                                                                             |
| LMAPCD            | - Louisville Metro Air Pollution Control District                                   |
| mmHg              | - Millimeters of mercury column height                                              |
| MM                | - Million                                                                           |
| (M)SDS            | - (Material) Safety Data Sheet                                                      |
| NAICS             | - North American Industry Classification System                                     |
| NO <sub>x</sub>   | - Nitrogen oxides                                                                   |
| PM                | - Particulate Matter                                                                |
| PM <sub>10</sub>  | - Particulate Matter less than 10 microns                                           |
| PM <sub>2.5</sub> | - Particulate Matter less than 2.5 microns                                          |
| ppm               | - parts per million                                                                 |
| PSD               | - Prevention of Significant Deterioration                                           |
| psia              | - Pounds per square inch absolute                                                   |
| QA                | - Quality Assurance                                                                 |
| RACT              | - Reasonably Available Control Technology                                           |
| SIC               | - Standard Industrial Classification                                                |
| SIP               | - State Implementation Plan                                                         |
| SO <sub>2</sub>   | - Sulfur dioxide                                                                    |
| STAR              | - Strategic Toxic Air Reduction                                                     |
| TAC               | - Toxic Air Contaminant                                                             |
| UTM               | - Universal Transverse Mercator                                                     |
| VOC               | - Volatile Organic Compound                                                         |
| w.c.              | - Water column                                                                      |
| year              | - Any period of twelve consecutive months, unless "calendar year" is specified      |
| yr                | - Year, or any 12 consecutive-month period, as determined by context                |

## Preamble

Title V of the Clean Air Act Amendments of 1990 (the Act) required EPA to create an operating permit program for implementation by state or local air permitting authorities. The purposes of this program are: (1) to require an affected company to assume full responsibility for demonstrating compliance with applicable regulations; (2) to capture all of the regulatory information pertaining to an affected company in a single document; and (3) to make permits more consistent with each other.

A company is subject to the Title V program if it meets any of several criteria related to the nature or amount of its emissions. The Title V operating permit specifies what the affected company is, how it may operate, what its applicable regulations are, how it will demonstrate compliance, and what is required if compliance is not achieved. In Jefferson County, Kentucky, the Louisville Metro Air Pollution Control District (LMAPCD or APCD) is responsible for issuing Title V permits to affected companies and enforcing local regulations and delegated federal and state regulations. EPA may enforce federal regulations but not "District Only Enforceable Regulations."

Title V offers the public an opportunity to review and comment on a company's draft permit. It is intended to help the public understand the company's compliance responsibility under the Clean Air Act. Additionally, the Title V process provides a mechanism to incorporate new applicable requirements. Such requirements are available to the public for review and comment before they are adopted.

Title V Permit General Conditions define requirements that are generally applicable to all Title V companies under the jurisdiction of LMAPCD. This avoids repeating these requirements in every section of the company's Title V permit. Company-specific conditions augment the General Conditions as necessary; these appear in the sections of the permit addressing individual emission units or emission points.

The General Conditions include references to regulatory requirements that may not currently apply to the company, but which provide guidance for potential changes at the company or in the regulations during the life of the permit. Such requirements may become applicable if the company makes certain modifications or a new applicable requirement is adopted.

When the applicability of a section or subpart of a regulation is unclear, a clarifying citation will be made in the company's Title V permit at the emission unit/point level. Comments may also be added at the emission unit/point level to give further clarification or explanation.

The owner or operator's Title V permit may include a current table of "insignificant activities."

Insignificant activities are defined in District Regulation 2.16, section 1.23, as of the date the permit was proposed for review by U.S. EPA, Region 4.

Insignificant activities identified in District Regulation 1.02, section 1.38, and Appendix A may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16, section 3.5.4.1.4.

Insignificant activities identified in District Regulation 1.02, section 1.38, and Appendix A shall comply with generally applicable requirements as required by Regulation 2.16, section 4.1.9.4.

## General Conditions

G1. **Compliance** - The owner or operator shall comply with all applicable requirements and with all terms and conditions of this permit. Any noncompliance shall constitute a violation of the Act, State, and District regulations and shall cause the source to be subject to enforcement actions including, but not limited to, the termination, revocation and reissuance, or revision of this permit, or denial of a permit application to renew this permit. Notwithstanding any other provision in the Jefferson County portion of the Kentucky SIP approved by EPA, any credible evidence may be used for the purpose of establishing whether the owner or operator is in compliance with, has violated, or is in violation of any such plan.

[Regulation 2.16, sections 4.1.3, 4.1.13.1, and 4.1.13.7]

G2. **Compliance Certification** - The owner or operator shall certify, annually, or more frequently if required in applicable regulations, compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall meet the requirements of Regulation 2.16, sections 3.5.11 and 4.3.5. The owner or operator shall submit the annual compliance certification (Form 9400-O) directly to the EPA and to the District, as set forth in Regulation 2.16, section 4.3.5.4, at the following addresses:

*US EPA - Region IV  
Air Enforcement Branch  
Atlanta Federal Center  
61 Forsyth Street  
Atlanta, GA 30303-8960*

*Air Pollution Control District  
701 W. Ormsby Avenue, Suite 303  
Louisville, Kentucky 40203-3137*

The owner or operator shall submit the Compliance Certification on or before April 15 of each year, or other such due date as required by another applicable regulation.

G3. **Compliance Schedule** - The owner or operator shall submit a schedule of compliance for each emission unit that is not in compliance with all applicable requirements. A compliance schedule must meet the requirements of Regulation 2.16, section 3.5.9.5. A schedule of compliance shall be supplemental to, and shall not condone noncompliance with, the applicable requirements on which it is based. For each schedule of compliance, the owner or operator shall submit certified progress reports at least semi-annually, or at a more frequent period if specified in an applicable requirement or by the District in accordance with Regulation 2.16, section 4.3.4. The progress reports shall contain:

- a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when activities, milestones, or compliance were achieved.
- b. An explanation of why dates in the schedule of compliance were not or will not be met, and preventive or corrective measures adopted.

G4. **Duty to Supplement or Correct Application** - If the owner or operator fails to submit relevant facts or has submitted incorrect information in the permit application, they shall, upon discovery of the occurrence, promptly submit the supplementary facts or corrected information in accordance with Regulation 2.16, section 3.4.

G5. **Emergency Provision**

- a. An emergency shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emission limitations if the conditions in Regulation 2.16 are met. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- i. An emergency occurred and that the owner or operator can identify the cause of the emergency;
    - ii. The permitted facility was at the time being properly operated;
    - iii. During the period of the emergency the owner or operator expeditiously took all reasonable steps, consistent with safe operating practices, to minimize levels of emissions that exceeded the emission standards or other requirements in this permit; and
    - iv. The owner or operator submitted notice meeting the requirements of Regulation 1.07 of the time when emissions limitations were exceeded because of the emergency. This notice must fulfill the requirement of this condition, and must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
  - b. In an enforcement proceeding, the owner or operator seeking to establish the occurrence of an emergency has the burden of proof.
  - c. This condition is in addition to any emergency or upset provision contained in an applicable requirement. [Regulation 2.16, sections 4.7.1 through 4.7.4]
- G6. **Emission Fees Payment Requirements** - The owner or operator shall pay annual emission fees in accordance with Regulation 2.08, section 1.3. Failure to pay the emissions fees when due shall constitute a violation of District Regulations. Such failure is subject to penalties and an increase in the fee of an additional 5% per month up to a maximum of 25% of the original amount due. In addition, failure to pay emissions fees within 60 days of the due date shall automatically suspend this permit to operate until the fee is paid or a schedule for payment acceptable to the District has been established. [Regulation 2.08, section 1.2.5]
- G7. **Emission Offset Requirements** - The owner or operator shall comply with the requirements of Regulation 2.04.
- G8. **Enforceability Requirements** - Except for the conditions that are specifically designated as District-Only Enforceable Conditions, all terms and conditions of this permit, including any provisions designed to limit a source's potential to emit, are enforceable by EPA and citizens as specified under the Act. [Regulation 2.16, sections 4.2.1 and 4.2.2]
- G9. **Enforcement Action Defense**
- a. It shall not be a defense for the owner or operator in an enforcement action that it would have been necessary for the owner or operator to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
  - b. The owner or operator's failure to halt or reduce activity may be a mitigating factor in assessing penalties for noncompliance if the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operation. [Regulation 2.16, sections 4.1.13.2 and 4.1.13.3]
- G10. **Hazardous Air Pollutants and Sources Categories** - The owner or operator shall comply with the applicable requirements of Regulations 5.02 and 5.14.
- G11. **Information Requests** - The owner or operator shall furnish to the District, within a reasonable time, information requested in writing by the District, to determine whether cause exists for revising, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The owner or operator shall also furnish, upon request, copies of records required to be kept by this permit. [Regulation 2.16, section 4.1.13.6]

If information is submitted to the District under a claim of confidentiality, the source shall submit a copy of the confidential information directly to EPA at the address shown in General Condition 35.b. [Regulation 2.07, section 10.2]

G12. **Insignificant Activities** - The owner or operator shall:

- a. Notify the District in a timely manner of any proposed change to an insignificant activity that would require a permit revision. [Regulation 2.16, Section 5]
- b. Submit a current list of insignificant activities by April 15 of each year with the annual compliance certification, including an identification of the additions and removals of insignificant activities that occurred during the preceding year. [Regulation 2.16, section 4.3.5.3.6]

G13. **Inspection and Entry** - Upon presentation of credentials and other documents as required by law, the owner or operator shall allow the District or an authorized representative to perform the following during reasonable hours: [Regulation 2.16, section 4.3.2]

- a. Enter the premises to inspect any emissions-related activity or records required in this permit.
- b. Have access to and copy records required by this permit.
- c. Inspect facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required by this permit.
- d. Sample or monitor substances or parameters to assure compliance with this permit or any applicable requirements.

G14. **Monitoring and Related Record Keeping and Reporting Requirement** - The owner or operator shall comply with the requirements of Regulation 2.16, section 4.1.9. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month. The owner or operator shall submit all required monitoring reports at least once every six months, unless more frequent reporting is required by an applicable requirement. The reporting period shall be 1 January through 30 June and 1 July through 31 December of each calendar year. All reports shall be sent to the District at the address shown in paragraph 2 of these General Conditions and must be submitted by the 60<sup>th</sup> day following the end of each reporting period, unless specified elsewhere in this permit. If surrogate operating parameters are monitored and recorded in lieu of emission monitoring, then an exceedance of multiple parameters may be deemed a single violation by the District for enforcement purposes. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. All semi-annual compliance reports shall include the statement "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete" and the signature and title of a responsible official of the company.

The semi-annual compliance reports are due on or before the following dates of each calendar year:

| <b><u>Reporting Period</u></b> | <b><u>Report Due Date</u></b> |
|--------------------------------|-------------------------------|
| January 1 - June 30            | August 29                     |
| July 1 - December 31           | March 1 of the following year |

If a change in the responsible official (RO) occurs during the term of this permit, or if an RO is added, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of such change or addition.

- G15. **Off-permit Documents** - Any applicable requirements, including emission limitations, control technology requirements, or work practice standards, contained in an off-permit document cannot be changed without undergoing the permit revision procedures in Regulation 2.16, Section 5. [Regulation 2.16, section 4.1.5]
- G16. **Operational Flexibility** - The owner or operator may make changes without permit revision in accordance with Regulation 2.16, section 5.8.
- G17. **Permit Amendments (Administrative)** - This permit can be administratively amended by the District in accordance with Regulation 2.16, section 5.4.
- G18. **Permit Application Submittal** - The owner or operator shall submit a timely and complete application for permit renewal or significant revision. If the owner or operator submits a timely and complete application, then the owner or operator's failure to have a permit is not a violation until the District takes formal action on this permit application. This protection shall cease to apply if, subsequent to completeness determination, the owner or operator fails to submit, by the deadline specified in writing by the District, additional information required to process the application as required by Regulation 2.16, sections 3 and 5.2.
- G19. **Permit Duration** - This permit is issued for a fixed term of 5 years, in accordance with Regulation 2.16, section 4.1.8.3.
- G20. **Permit Renewal, Expiration and Application** - Permit renewal, expiration and application procedural requirements shall be in accordance with Regulation 2.16, sections 4.1.8.2 and 5.3. This permit may only be renewed in accordance with section 5.3.
- G21. **Permit Revisions** - No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit. [Regulation 2.16, section 4.1.16]
- G22. **Permit Revision Procedures (Minor)** - Except as provided in 40 CFR Part 72, the Acid Rain Program, this permit may be revised in accordance with Regulation 2.16, section 5.5.
- G23. **Permit Revision Procedures (Significant)** - A source seeking to make a significant permit revision shall meet all the Title V requirements for permit applications, issuance and Permit renewal, in accordance with Regulation 2.16, section 5.7, and all other applicable District Regulations.
- G24. **Permit Termination and Revocation by the District** - The District may terminate this permit only upon written request of the owner or operator. The District may revoke a permit for cause, in accordance with Regulation 2.16, section 5.11.1 through 5.11.6. For purposes of section 5.11.1, substantial or unresolved noncompliance includes, but is not limited to:
- a. Knowingly operating process or air pollution control equipment in a manner not allowed by an applicable requirement or that results in excess emissions of a regulated air pollutant that would endanger the public or the environment;
  - b. Failure or neglect to furnish information, analyses, plans, or specifications required by the District;
  - c. Knowingly making any false statement in any permit application;
  - d. Noncompliance with Regulation 1.07, section 4.2; or
  - e. Noncompliance with KRS Chapter 77.
- G25. **Permit Shield** - The permit shield shall apply in accordance with Regulation 2.16, section 4.6.1.
- G26. **Prevention of Significant Deterioration of Air Quality** - The owner or operator shall comply with the requirements of Regulation 2.05.

- G27. **Property Rights** - This permit shall not convey property rights of any sort or grant exclusive privileges in accordance with Regulation 2.16, section 4.1.13.5.
- G28. **Public Participation** - Except for modifications qualifying for administrative permit amendments or minor permit revision procedures, all permit proceedings shall meet the requirements of Regulations 2.07, Section 1; and 2.16, sections 5.1.1.2 and 5.5.4.
- G29. **Reopening for Cause** - This permit shall be reopened and revised by the District in accordance with Regulation 2.16, section 5.9.
- G30. **Reopening for Cause by EPA** - This permit may be revised, revoked and reissued or terminated for cause by EPA in accordance with Regulation 2.16, section 5.10.
- G31. **Risk Management Plan [112(r)]** - For each process subject to section 112(r) of the Act, the owner or operator shall comply with 40 CFR Part 68 and Regulation 5.15.
- G32. **Severability Clause** - The conditions of this permit are severable. Therefore, if any condition of this permit, or the application of any condition of this permit to any specific circumstance, is determined to be invalid, the application of the condition in question to other circumstances, as well as the remainder of this permit's conditions, shall not be affected.  
[Regulation 2.16, section 4.1.12]
- G33. **Stack Height Considerations** - The owner or operator shall comply with the requirements of Regulation 2.10.
- G34. **Startups, Shutdowns, and Upset Conditions Requirements** - The owner or operator shall comply with the requirements of Regulation 1.07.
- G35. **Submittal of Reports, Data, Notifications, and Applications**
- a. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit as set forth in Regulation 2.16, sections 3.1, 3.3, 3.4, 3.5, 4.1.13.6, 5.8.5 and 5.12 shall be submitted to:  
*Air Pollution Control District  
701 West Ormsby Avenue, Suite 303  
Louisville, Kentucky 40203-3137*
  - b. Documents that are specifically required to be submitted to EPA, as set forth in Regulation 2.16, sections 3.3 and 5.8.5 shall be mailed to EPA at:  
*US EPA - Region IV  
APTMD - 12th floor  
Atlanta Federal Center  
61 Forsyth Street  
Atlanta, GA 30303-3104*

- G36. **Other Applicable Regulations** - The owner or operator shall comply with all applicable requirements of the following:

| <b>Regulation</b> | <b>Title</b>                                                                                                           |
|-------------------|------------------------------------------------------------------------------------------------------------------------|
| 1.01              | General Application of Regulations and Standards                                                                       |
| 1.02              | Definitions                                                                                                            |
| 1.03              | Abbreviations and Acronyms                                                                                             |
| 1.04              | Performance Tests                                                                                                      |
| 1.05              | Compliance With Emissions Standards and Maintenance Requirements                                                       |
| 1.06              | Source Self-Monitoring, Emission Inventory Development and Reporting                                                   |
| 1.07              | Excess Emissions During Startups, Shutdowns, and Upset Conditions                                                      |
| 1.08              | Administrative Procedures                                                                                              |
| 1.09              | Prohibition of Air Pollution                                                                                           |
| 1.10              | Circumvention                                                                                                          |
| 1.11              | Control of Open Burning                                                                                                |
| 1.14              | Control of Fugitive Particulate Emissions                                                                              |
| 1.18              | Rule Effectiveness                                                                                                     |
| 1.19              | Administrative Hearings                                                                                                |
| 2.01              | General Application (Permit Requirements)                                                                              |
| 2.02              | Air Pollution Regulation Requirements and Exemptions                                                                   |
| 2.03              | Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements                           |
| 2.04              | Construction or Modification of Major Sources in or Impacting Upon Non-Attainment Areas (Emission Offset Requirements) |
| 2.05              | Prevention of Significant Deterioration                                                                                |
| 2.06              | Permit Requirements – Other Sources                                                                                    |
| 2.07              | Public Notification for Title V, PSD, and Other Offset Permits; SIP Revisions; and Use of Emission Reduction Credits   |
| 2.09              | Causes for Permit Modification, Revocation, or Suspension                                                              |
| 2.10              | Stack Height Considerations                                                                                            |
| 2.11              | Air Quality Model Usage                                                                                                |
| 3.01              | Ambient Air Quality Standards                                                                                          |
| 4.01              | General Provisions for Emergency Episodes                                                                              |
| 4.02              | Episode Criteria                                                                                                       |
| 4.03              | General Abatement Requirements                                                                                         |
| 4.04              | Particulate and Sulfur Dioxide Reduction Requirements                                                                  |
| 4.05              | Hydrocarbon and Nitrogen Oxides Reduction Requirements                                                                 |
| 4.06              | Carbon Monoxide Reduction Requirements                                                                                 |
| 4.07              | Episode Reporting Requirements                                                                                         |
| 6.01              | General Provisions (Existing Affected Facilities)                                                                      |
| 6.02              | Emission Monitoring for Existing Sources                                                                               |
| 7.01              | General Provisions (New Affected Facilities)                                                                           |

**District Only Enforceable Regulations:**

| <b>Regulation</b> | <b>Title</b>                                                                                        |
|-------------------|-----------------------------------------------------------------------------------------------------|
| 1.12              | Control of Nuisances                                                                                |
| 1.13              | Control of Objectionable Odors                                                                      |
| 2.08              | Emission Fee, Permit Fees and Permit Renewal Procedures                                             |
| 2.16              | Title V Operating Permits                                                                           |
| 5.00              | Definitions                                                                                         |
| 5.01              | General Provisions                                                                                  |
| 5.02              | Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants |
| 5.14              | Hazardous Air Pollutants and Source Categories                                                      |
| 5.15              | Chemical Accident Prevention Provisions                                                             |
| 5.20              | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant              |
| 5.21              | Environmental Acceptability for Toxic Air Contaminants                                              |
| 5.22              | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant             |
| 5.23              | Categories of Toxic Air Contaminants                                                                |
| 7.02              | Adoption and Incorporation by Reference of Federal New Source Performance Standards                 |

G37. **Stratospheric Ozone Protection Requirements** - Any facility having refrigeration equipment, including air conditioning equipment, which uses Class I or II Controlled Substance (listed in 40 CFR 82, Subpart A, Appendices A and B) or non-exempt substitutes, and any facility which maintains, services, or repairs motor vehicles using a Class I or II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts A, B, and F. Those requirements include the following restrictions:

- a. Any facility having any refrigeration equipment that normally contains fifty pounds of refrigerant or more must keep servicing records documenting the date and type of all service and the quantity of any refrigerant added, according to 40 CFR 82.166;
- b. No person repairing or servicing a motor vehicle may perform any service on a motor vehicle air conditioner (MVAC) involving the refrigerant for such air conditioner unless the person has been properly trained and certified as provided in 40 CFR 82.34 and 40 CFR 82.40, and properly uses equipment approved according to 40 CFR 82.36 and 40 CFR 82.38, and complies with 40 CFR 82.42;
- c. No person may sell or distribute, or offer for sale or distribution, any substance listed as a Class I or II Controlled Substance in 40 CFR 82, Subpart A, Appendices A and B, except in compliance with 40 CFR 82.34(b), 40 CFR 82.42, and/or 40 CFR 82.166;
- d. No person maintaining, servicing, repairing, or disposing of appliances may knowingly vent or otherwise release into the atmosphere any Class I or II substance used as a refrigerant in such equipment and no other person may open appliances (except MVACs as defined in 40 CFR 82.152) for service, maintenance, or repair unless the person has been

properly trained and certified according to 40 CFR 82.161 and unless the person uses equipment certified for that type of appliance according to 40 CFR 82.158 and unless the person observes the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;

- e. No person may dispose of appliances (except small appliances, as defined in 40 CFR 82.152) without using equipment certified for that type of appliance according to 40 CFR 82.158 and without observing the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;
- f. No person may recover refrigerant from small appliances, MVACs and MVAC-like appliances (as defined in 40 CFR 82.152), except in compliance with the requirements of 40 CFR 82 Subpart F;
- g. If the permittee manufactures, transforms, imports, or exports, a Class I or II Controlled Substance (listed in 40 CFR 82, Subpart A, Appendices A and B), the permittee is subject to all requirements as specified in 40 CFR 82 Subpart A, Production and Consumption Controls. [Regulation 2.16, section 4.1.5]

## Plantwide Requirements

### Applicable Regulations

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                                                                                                   |                            |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                                                                                                      | <b>Applicable Sections</b> |
| 2.05                                     | Prevention of Significant Deterioration of Air Quality                                                                            | 1                          |
| 6.42                                     | Reasonably Available Control Technology Requirements for Major Volatile Organic Compound- and Nitrogen Oxides-Emitting Facilities | All                        |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                         |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                            | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                             | 1, 2                       |
| 5.01                                                        | General Provisions                                                                      | 1 through 2                |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant  | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                  | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                    | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                         |                            |

## Plantwide Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. NO<sub>x</sub>

- i. The owner or operator shall not allow plantwide NO<sub>x</sub> emissions to equal or exceed 100 tons per 12-consecutive months.  
[Regulations 2.05, 6.42], [Construction Permit 33318-11-C]  
[Appendix A - NO<sub>x</sub> RACT Plan – Amendment 1, Section15]<sup>2</sup>
- ii. The owner or operator shall only comply with Section 15 of the Approved NO<sub>x</sub> RACT Plan – Amendment 1.<sup>2</sup> [Regulation 6.42]

#### b. TAC

- i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*.<sup>3</sup>  
[Regulations 5.00 and 5.21]
- ii. The owner or operator shall perform a new Environmental Acceptability (EA) Demonstration or *de minimis* determination when the following events occur and submit the EA Demonstration on the schedule noted in the reporting section:<sup>4</sup>
  - (1) An application to construct or modify a process or process equipment is submitted to the District pursuant to Regulation 2.03. 2.04 or 2.05. [Regulation 5.21, section 4.22.1]
  - (2) A modification of any physical modeling parameters such as fence lines or building heights that are not otherwise subject to the requirements in this permit that affects the demonstration of compliance. [Regulation 5.21, section 4.22.2]
  - (3) A change occurs in the process or process equipment, including raw material or fuel type substitution. [Regulation 5.21, section 4.22.3]
- iii. When a new TAC is introduced or for any existing TAC which does not have an established BAC or *de minimis* value, the owner or operator shall

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<sup>2</sup> The NO<sub>x</sub> limit of 100 tons per year, plantwide, is a PSD and NO<sub>x</sub> RACT avoidance limit taken in Construction Permit 33318-11-C. Section 15 of the attached NO<sub>x</sub> RACT Plan authorizes the District to add other NO<sub>x</sub> requirements as long as they are federally enforceable. All other sections of the NO<sub>x</sub> RACT Plan are no longer applicable as the all coal fired boilers have been either removed or disabled.

<sup>3</sup> Emission of natural gas combustion products is *de minimis* by definition. [Regulation 5.21, section 7]

<sup>4</sup> Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to perform a new Environmental Acceptability Demonstration.

calculate and report these values as part of any aforementioned EA Demonstration. The form, located in Appendix F, may be used for determining BAC and *de minimis* values.

[Regulation 5.20, sections 3 and 4]

**c. VOC**

- i. The owner or operator shall not allow plantwide VOC emissions to equal or exceed 250 tons per 12-consecutive months.<sup>5</sup>

[Regulation 2.05] [Construction Permit 33318-11-C]

**S2. Monitoring and Record Keeping**

[Regulation 2.16, section 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

**a. NO<sub>x</sub>**

- i. The owner or operator shall, monthly, calculate and record the monthly and 12-consecutive month NO<sub>x</sub> emissions.

[Appendix A - NO<sub>x</sub> RACT Plan – Amendment 1, Section 15]

**b. TAC**

- i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS/SDS, analysis of emissions, and/or modeling results.

**c. VOC**

- i. The owner or operator shall, monthly, calculate and record the monthly and 12-consecutive-month VOC emissions.

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<sup>5</sup> The VOC limit of 250 tons per year, plantwide, is a PSD avoidance limit taken in Construction Permit 33318-11-C. All equipment-specific VOC PSD avoidance-limits have been removed as they are no longer applicable.

**S3. Reporting**

[Regulation 2.16, section 4.1.1]

The owner or operator shall report the following information, as required by General Condition G14:

**a. NO<sub>x</sub>**

- i. For the 100 tons per 12 consecutive month period plantwide NO<sub>x</sub> limit:<sup>6</sup>
  - (1) Identification of all periods of exceedances of the plantwide NO<sub>x</sub> limit including the quantity of excess emissions.
  - (2) The monthly and 12-consecutive month plantwide NO<sub>x</sub> emissions.
  - (3) Reason for excess emissions.
  - (4) Description of corrective action taken to prevent future exceedances.

**b. TAC**

- i. The owner or operator shall submit new EA Demonstrations involving applications to construct or modify with the construction permit application. [Regulation 5.21, section 4.22.1]
- ii. The owner or operator shall submit new EA Demonstrations involving modification of any physical modeling parameter, such as fence lines or building heights, that are not otherwise subject to the permit requirements for that facility that affects the demonstration of compliance with the operating permit renewal application. [Regulation 5.21, section 4.22.2]
- iii. The owner or operator shall submit new EA Demonstrations involving a change in a process or process equipment, including raw material or fuel type substitution before making the change. [Regulation 5.21, section 4.22.3]
  - (1) Prior approval by the District is not required if the change does not result in emissions that exceed an EA goal, does not cause emissions of a TAC to no longer be de minimis, and a permit modification is not required. In this case, the new EA Demonstration shall be submitted within 6 months of the change.

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<sup>6</sup> The equipment that was covered by the NO<sub>x</sub> RACT plan has all been removed. However, the plan remains in effect. There is no equipment-specific reporting that must be done. GE Appliances is required only to report annual plantwide NO<sub>x</sub> emissions as described here.

**c. VOC**

- i. For the 250 tons per 12 consecutive month period plantwide VOC limit:
  - (1) Identification of all periods of exceedances of the VOC limit including the quantity of excess emissions.
  - (2) The monthly and 12-consecutive month plantwide VOC emissions.
  - (3) Reason for excess emissions.
  - (4) Description of corrective action taken to prevent future exceedances.

### Comments

GE Electric Company submitted the TAC Environmental Acceptability Demonstration to the District in December 2006, July 2007, June 2014, and August 2015. Compliance with the STAR EA Goals was demonstrated in the source's EA Demonstrations. Tier 3 SCREEN3 air modeling was performed for emission units that have non-*de minimis* TAC emissions. The District reviewed the EA Demonstrations submitted by the source. The following table demonstrates that the Plantwide risk values model results from the source's EA Demonstration, comply with the STAR EA goals required in Regulation 5.21.

Table 1 - Individual Industrial Risk

| TAC                       | TAC Cat. | U510 EP-511 and EP-512 |                  | U111 EP U111a  |                  | U112 EP DC#1 and EP DC#2 |                  |
|---------------------------|----------|------------------------|------------------|----------------|------------------|--------------------------|------------------|
|                           |          | R <sub>C</sub>         | EAG <sub>C</sub> | R <sub>C</sub> | EAG <sub>C</sub> | R <sub>C</sub>           | EAG <sub>C</sub> |
| Acrylonitrile<br>107-13-1 | 1        | 0.412                  | < 1              | -              | -                | -                        | -                |
| Diesel PM<br>-----        | 3        | -                      | -                | 0.995          | < 1              | 0.97                     | < 1              |
| Ethyl Benzene<br>100-41-4 | 4        | 0.021                  | < 1              | -              | -                | -                        | -                |
| Styrene<br>100-42-5       | 4        | 0.055                  | < 1              | -              | -                | -                        | -                |
| Cumene<br>98-82-8         | 4        | 0.015                  | < 1              | -              | -                | -                        | -                |

Table 2 Individual Non-Industrial Risk

| TAC                       | TAC Cat. | U510 EP-511 and EP-512 |                  | U111 EP U111a  |     | U112 EP DC#1 and EP DC#2 |                  |
|---------------------------|----------|------------------------|------------------|----------------|-----|--------------------------|------------------|
|                           |          | R <sub>C</sub>         | EAG <sub>C</sub> | R <sub>C</sub> | EAG | R <sub>C</sub>           | EAG <sub>C</sub> |
| Acrylonitrile<br>107-13-1 | 1        | 0.365                  | < 1              | -              | -   | -                        | -                |
| Diesel PM<br>-----        | 3        | -                      | -                | 0.995          | < 1 | 0.97                     | < 1              |
| Ethyl Benzene<br>100-41-4 | 4        | 0.018                  | < 1              | -              | -   | -                        | -                |
| Styrene<br>100-42-5       | 4        | 0.048                  | < 1              | -              | -   | -                        | -                |
| Cumene<br>98-82-8         | 4        | 0.018                  | < 1              | -              | -   | -                        | -                |

Table 3 Plantwide Risk Summary

| <b>Plant-wide Summary</b>           | <b>Individual Stationary Source, All P/PE</b> |       | <b>Individual Stationary Source, All New and Modified P/PE</b> |       |
|-------------------------------------|-----------------------------------------------|-------|----------------------------------------------------------------|-------|
|                                     |                                               |       |                                                                |       |
| Industrial Total R <sub>C</sub>     | 2.468                                         | < 75  | 2.468                                                          | < 38  |
| Non-Industrial Total R <sub>C</sub> | 2.414                                         | < 7.5 | 2.414                                                          | < 3.8 |

**Emission Unit U01: Powder Paint System (AP1)****Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                                                                   |                            |
|------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                                                                      | <b>Applicable Sections</b> |
| 7.08                                     | Standards of Performance for New Process Operations                                               | 1 through 3                |
| 7.59                                     | Standard of Performance for New Miscellaneous Metal Parts and Products Surface Coating Operations | 1 through 6                |
| 40 CFR 63 Subpart A                      | General Provisions                                                                                | All                        |
| 40 CFR 63 Subpart NNNN                   | National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances     | 63.4080 through 63.4181    |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                                     |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                                        | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                                         | 1, 2                       |
| 5.01                                                        | General Provisions                                                                                  | 1 through 2                |
| 5.02                                                        | Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants | All                        |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant              | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                              | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant             | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                                | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                                     |                            |

**Equipment**

| <b>Emission Point</b> | <b>Description</b>                                                                                             | <b>Install Date</b> | <b>Applicable Regulations</b>       | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|----------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------------|-------------------|-------------------|
| EP 100A               | Two Gema Volstatic powder coating booths with process reclamation system (reclamation system efficiency 90%)   | unk                 | STAR, 7.08, 40 CFR 63, Subpart NNNN | N/A               | N/A               |
| EP 100B-1             | Belco bake oven with two direct, natural gas-fired burners rated at 3.5 MMBTU/hour each (7.0 MMBTU/hour total) | 2019 <sup>7</sup>   | STAR, 7.59, 40 CFR 63, subpart NNNN | N/A               | S-U01-1,2,3       |
| EP 100D               | Heraeus sintering oven with natural-gas infra-red catalytic oven rated at 1.95 MMBTU/hour                      | 2019 <sup>7</sup>   | STAR, 7.59, 40 CFR 63, subpart NNNN | N/A               | S-U01-4           |

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<sup>7</sup> C-0870-0023-19-V (September 19, 2019)

## U01 Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. HAP

- i. See Appendix B

#### b. Opacity

- i. The owner or operator shall not cause to be discharged into the atmosphere from any affected facility (the powder coating operation, EP 100A) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is equal to or greater than 20% opacity. [Regulation 7.08, section 3.1.1]

#### c. PM

- i. The owner and operator shall not cause to be discharged into the atmosphere from any affected facility (the powder coating operation, EP 100A) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is in excess of 2.34 lbs/hr based on actual operating hours in a calendar day.<sup>8</sup>  
[Regulation 7.08, section 3.1.2]

#### d. TAC<sup>9</sup>

- i. See Plantwide Standards TAC section.

#### e. VOC<sup>10</sup>

- i. The owner or operator shall not allow or cause VOC emissions, including all coatings, additives, catalysts, solvents, thinners, and cleaners from equipment subject to Regulation 7.59 plantwide to exceed 5 tons during any

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<sup>8</sup> A one-time compliance demonstration has been performed for PM on March 20, 2012 and the standard should be met when the reclamation system is in operation. The monthly through-put records and the daily records of the hours of operation are required to determine the PM emissions (lb/hr) based on a monthly average during any by-pass of the reclamation unit. Also, GE has the option to substitute the actual PM calculations with the potential to emit to determine the PM emissions (lb/hr) based on a monthly average during any by-pass of the reclamation unit.

<sup>9</sup> The MSDS/SDS for the powder paints used, at the time of the issuance of this permit, show that they contain no TACs.

<sup>10</sup> The potential VOC emissions for this construction project (34677-12-C) were 17.56 tpy VOC based on 3,511,008 lb/yr of powder coating usage. The original construction permit (216-93-C(R1)) contained a less than 9 tpy VOC limit and the company requested to remove that limit since the company has accepted a plantwide limit of less than 250 tpy to avoid PSD applicability.

twelve consecutive month period unless compliant coatings are used.<sup>11</sup>  
 [Regulation 7.59 section 5.2]

OR

- ii. The owner or operator shall not cause or allow the emission of VOC from any affected facility resulting from the coating of metallic surfaces in excess of the applicable emission rate as follows: [Regulation 7.59, Section 3.1]

| Coating                      | VOC maximum |            |
|------------------------------|-------------|------------|
|                              | lb/gal      | kg/l       |
| Clear coatings               | 4.3         | 0.52       |
| Air-dried coatings           | 3.5         | 0.524<br>2 |
| Extreme performance coatings | 3.5         | 0.42       |
| All other coatings           | 3.0         | 0.423<br>6 |

- iii. See Plantwide Standards VOC section.

**S2. Monitoring and Record Keeping**

[Regulation 2.16, section 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

**a. HAP**

- i. See Appendix B.

**b. Opacity**

- i. There are no monitoring and record keeping requirements.<sup>12</sup>

**c. PM**

- i. The owner or operator shall perform monthly visual inspections of the structural and mechanical integrity of the reclamation system (EP 100A) for signs of damage, air leakage, corrosion, etc. and repair as needed.

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<sup>11</sup> This 5 tpy limit to avoid the standards in Regulation 7.59, section 3.1 will be allowed if any of their coatings can exceed the standards. All emission points subject to Regulation 7.59 5 tpy plantwide limit are: U01 EP 100B-1, U01 EP 100D, U30 EP 213, U30 EP 214, U30 EP 214B, U310 AP3-310a, U310 AP3-310b, U530 EP-4A, U530 EP-4B, U530 EP-6A, U530 EP-6B, U530 EP-7A, and U530 EP-7B.

<sup>12</sup> The District has determined that no periodic visible emissions surveys are required for this emission unit.

- ii. The owner or operator shall either:
  - (1) Maintain monthly records of the type and amount of products transferred and maintain records, daily, of the hours of operation.
  - OR
  - (2) Maintain a record of the daily potential to emit.
- iii. The owner or operator shall keep monthly records of the visual inspection of the structural and mechanical integrity of the reclamation system (EP 100A).
- iv. The owner or operator shall maintain daily records of any periods of time where the process was operating and the reclamation system (EP 100A) was not operating or a declaration that the reclamation system operated at all times that day when the process was operating.
- v. If there is any time that the reclamation system (EP 100A) is bypassed or not in operation when the powder coat booth is operating, then the owner or operator shall keep a record of the following for each bypass event:
  - (1) Date
  - (2) Start time and stop time
  - (3) Identification of the process equipment
  - (4) PM emissions for each hour during the bypass in lb/hr
  - (5) Summary of the cause or reason for each bypass event
  - (6) Corrective action taken to minimize the extent or duration of the bypass event;
  - (7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.
  - (8) If this event is due to an upset condition, you must report as specified in District regulation 1.07, section 4.

**d. TAC**

- i. See Plantwide Monitoring and Record Keeping TAC section.

**e. VOC**

- i. An owner or operator of an affected facility subject to this regulation shall maintain records that include, but not be limited to, the following: <sup>13</sup> [Regulation 7.59, section 6.1]

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<sup>13</sup> The regulation applicable will be Regulation 7.59, application method will be electrostatic application of powder paint, and the substrate type will be metal. The owner or operator shall be allowed to maintain a one-time record of

- (1) The regulation and section number applicable to the affected facility for which the records are being maintained.
  - (2) The application method and substrate type (metal, plastic, etc.).
  - (3) The amount and type of coatings (including catalyst and reducer for multi-component coatings) and solvent (including exempt compounds) used at each point of application during the month.
  - (4) The VOC content as applied in each coating and solvent.
  - (5) The date, or usage record period, for each application of coating and solvent.
  - (6) The amount of surface preparation, clean-up, wash-up of solvent (including exempt compounds) used and the VOC content of each material used during each calendar month.
  - (7) Oven temperature, where applicable.
- ii. The VOC content shall be calculated using a percent solids basis (excluding water and exempt solvents) for coatings using EPA Method 24.  
[Regulation 7.59, section 6.2]
  - iii. The owner or operator shall monthly calculate and record the monthly and twelve consecutive month plantwide VOC emissions subject to Regulation 7.59.
  - iv. The owner or operator shall be allowed to maintain a one time record of the coating material method-of-application and VOC content and to notify the District if the company decides to make any changes to this information in order to demonstrate compliance with the daily record keeping requirements.
  - v. See Plantwide Monitoring and Record Keeping VOC section.

### **S3. Reporting**

[Regulation 2.16, section 4.1.1]

The owner or operator shall report the following information, as required by General Condition G14:

#### **a. HAP**

- i. See Appendix B.

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the information and to notify the District if the company decides to make any changes to this information in order to demonstrate compliance with the daily record keeping requirements.

**b. Opacity**

- i. There are no reporting requirements for this equipment.

**c. PM**

- i. The owner or operator shall report the following information regarding PM By-Pass Activity in the semi-annual reports:
  - (1) Number of times the PM vent stream by-passes the reclamation system (EP 100A) and is vented to the atmosphere.
  - (2) Duration of each by-pass to the atmosphere.
  - (3) Calculated quantity of lb/hr PM emitted for each by-pass.

**d. TAC**

- i. See Plantwide Reporting TAC section

**e. VOC**

- i. The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports:
  - (1) Emission Unit ID number.
  - (2) Identification of all periods of exceedances of the VOC emission limit including the quantity of excess emissions.
  - (3) The combined monthly and 12 consecutive month plantwide VOC emissions.
  - (4) If the 5 tons per 12 consecutive month period plantwide VOC limit is exceeded, the VOC lb/gal as applied.
  - (5) Reason for excess emissions whether process upset, other known causes, or unknown causes.
  - (6) Description of any corrective action taken.
- ii. See Plantwide Reporting VOC section.

**Emission Unit U30: Powder Paint System (AP2)**

**Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                                                                   |                            |
|------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                                                                      | <b>Applicable Sections</b> |
| 7.08                                     | Standards of Performance for New Process Operations                                               | 1 through 3                |
| 7.59                                     | Standard of Performance for New Miscellaneous Metal Parts and Products Surface Coating Operations | 1 through 6                |
| 40 CFR 63 Subpart A                      | General Provisions                                                                                | All                        |
| 40 CFR 63 Subpart NNNN                   | National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances     | 63.4080 through 63.4181    |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                                     |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                                        | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                                         | 1, 2                       |
| 5.01                                                        | General Provisions                                                                                  | 1 through 2                |
| 5.02                                                        | Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants | All                        |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant              | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                              | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant             | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                                | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                                     |                            |

**Equipment**

| <b>Emission Point</b> | <b>Description</b>                                                                                                         | <b>Install Date</b> | <b>Applicable Regulations</b>      | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------|---------------------|------------------------------------|-------------------|-------------------|
| EP 213                | Paint Curing Oven #1 for Black, (2) natural gas-fired burners with a 3.5 MMBtu/hr capacity each for a total of 7 MMBtu/hr  | unk                 | STAR, 7.59, 40 CFR 63 Subpart NNNN | N/A               | S-U30a            |
| EP 214                | Paint Curing Oven #2 for Colors, (2) natural gas-fired burners with a 3.5 MMBtu/hr capacity each for a total of 7 MMBtu/hr | unk                 |                                    | N/A               | S-U30b            |
| EP 214B               | Double tunnel phosphator pretreat washer                                                                                   | unk                 | STAR, 7.59                         | N/A               | N/A               |
| EP 214C               | Two (2) powder coating operations <sup>14</sup> with process reclamation system                                            | unk                 | STAR, 7.08, 40 CFR 63 Subpart NNNN | N/A               | N/A               |

<sup>14</sup> The MSDS/SDS for the powder paints used, at the time of the issuance of this permit, show that they contain no TACs.

## U30 Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. HAP

- i. See Appendix B.

#### b. Opacity

- i. The owner or operator shall not cause to be discharged into the atmosphere from any affected facility (the powder paint operation (EP 214C)) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is equal to or greater than 20% opacity.<sup>15</sup> [Regulation 7.08, section 3.1.1]

#### c. PM

- i. The owner and operator shall not cause to be discharged into the atmosphere from any affected facility (the powder coating operation, EP 214C) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is in excess of 2.34 lbs/hr based on actual operating hours in a calendar day.<sup>16</sup> [Regulation 7.08, section 3.1.2]

#### d. TAC

- i. See Plantwide Standards TAC section.

#### e. VOC

- i. The owner or operator shall not allow or cause VOC emissions, including all coatings, additives, catalysts, solvents, thinners, and cleaners from equipment subject to Regulation 7.59 plantwide to exceed 5 tons during any twelve consecutive month period unless compliant coatings are used.<sup>17</sup> [Regulation 7.59 section 5.2]

OR

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<sup>15</sup> The District has determined that no periodic visible emissions surveys are required for this emission unit.

<sup>16</sup> A one-time compliance demonstration has been performed for PM on April 23, 2007 and the standard should be met when the reclamation system is in operation. The monthly through-put records and the daily records of the hours of operation are required to determine the PM emissions (lb/hr) based on a monthly average during any by-pass of the reclamation unit. Also, GE has the option to substitute the actual PM calculations with the potential to emit to determine the PM emissions (lb/hr) based on a monthly average during any by-pass of the reclamation unit.

<sup>17</sup> This 5 tpy limit to avoid the standards in Regulation 7.59, section 3.1 will be allowed if any of their coatings can exceed the standards. All emission points subject to Regulation 7.59 5 tpy plantwide limit are: U01 EP 100B-1, U01 EP 100D, U30 EP 213, U30 EP 214, U30 EP 214B, U310 AP3-310a, U310 AP3-310b, U530 EP-4A, U530 EP-4B, U530 EP-6A, U530 EP-6B, U530 EP-7A, and U530 EP-7B.

- ii. The owner or operator shall not cause or allow the emission of VOC from any affected facility resulting from the coating of metallic surfaces in excess of the applicable emission rate as follows: [Regulation 7.59, Section 3.1]

| Coating                      | VOC maximum |            |
|------------------------------|-------------|------------|
|                              | lb/gal      | kg/l       |
| Clear coatings               | 4.3         | 0.52       |
| Air-dried coatings           | 3.5         | 0.52       |
| Extreme performance coatings | 3.5         | 0.42       |
| All other coatings           | 3.0         | 0.423<br>6 |

- iii. See Plantwide Standards VOC section.

**S2. Monitoring and Record Keeping**

[Regulation 2.16, section 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

**a. HAP**

- i. See Appendix B.

**b. Opacity**

- i. There are no monitoring and record keeping requirements.

**c. PM**

- i. The owner or operator shall perform monthly visual inspections of the structural and mechanical integrity of the reclamation system (EP 214C) for signs of damage, air leakage, corrosion, etc. and repair as needed.
- ii. The owner or operator shall either:<sup>18</sup>
  - (1) Maintain monthly records of the type and amount of products transferred and maintain records, daily, of the hours of operation.
  - or
  - (2) Maintain a record of the daily potential to emit.

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<sup>18</sup> A one-time compliance demonstration has been performed for PM on April 23, 2007 and the standard should be met when the reclamation system is in operation. The monthly through-put records and the daily records of the hours of operation are required to determine the PM emissions (lb/hr) based on a monthly average during any by-pass of the reclamation unit. Also, GE has the option to substitute the actual PM calculations with the potential to emit to determine the PM emissions (lb/hr) based on a monthly average during any by-pass of the reclamation unit.

- iii. The owner or operator shall keep monthly records of the visual inspection of the structural and mechanical integrity of the reclamation system (EP 214C).
- iv. The owner or operator shall maintain daily records of any periods of time where the process was operating and the reclamation system (EP 214C) was not operating or a declaration that the reclamation system operated at all times that day when the process was operating.
- v. If there is any time that the reclamation system (EP 214C) is bypassed or not in operation when the powder coat booth is operating, then the owner or operator shall keep a record of the following for each bypass event:
  - (1) Date.
  - (2) Start time and stop time.
  - (3) Identification of the process equipment.
  - (4) PM emissions for each hour during the bypass in lb/hr.
  - (5) Summary of the cause or reason for each bypass event.
  - (6) Corrective action taken to minimize the extent or duration of the bypass event.
  - (7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.
  - (8) If this event is due to an upset condition, you must report as specified in District regulation 1.07, section 4.

**d. TAC**

- i. See Plantwide Monitoring and Record Keeping TAC section.

**e. VOC**

- i. An owner or operator of an affected facility subject to this regulation shall maintain records that include, but not be limited to, the following:<sup>19</sup> [Regulation 7.59, section 6.1]
  - (1) The regulation and section number applicable to the affected facility for which the records are being maintained.
  - (2) The application method and substrate type (metal, plastic, etc.).
  - (3) The amount and type of coatings (including catalyst and reducer for multi-component coatings) and solvent (including exempt

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<sup>19</sup> The regulation applicable will be Regulation 7.59, application method will be electrostatic application of powder paint, and the substrate type will be metal. The owner or operator shall be allowed to maintain a one-time record of the information and to notify the District if the company decides to make any changes to this information in order to demonstrate compliance with the daily record keeping requirements.

- compounds) used at each point of application during each calendar month.
- (4) The VOC content as applied in each coating and solvent.
  - (5) The date, or usage record period, for each application of coating and solvent.
  - (6) The amount of surface preparation, clean-up, wash-up of solvent (including exempt compounds) used and the VOC content of each material used during the calendar month.
  - (7) Oven temperature, where applicable.
- ii. The VOC content shall be calculated using a percent solids basis (excluding water and exempt solvents) for coatings using EPA Method 24. [Regulation 7.59, section 6.2]
  - iii. The owner or operator shall monthly calculate and record the monthly and twelve consecutive month plantwide VOC emissions subject to Regulation 7.59.
  - iv. The owner or operator shall be allowed to maintain a one time record of the coating material method-of-application and VOC content and to notify the District if the company decides to make any changes to this information in order to demonstrate compliance with the daily record keeping requirements.
  - v. See Plantwide Monitoring and Record Keeping VOC section.

### **S3. Reporting**

[Regulation 2.16, section 4.1.1]

The owner or operator shall report the following information, as required by General Condition G14:

#### **a. HAP**

- i. See Appendix B.

#### **b. Opacity**

- i. There are no periodic reporting requirements.

#### **c. PM**

- i. The owner or operator shall report the following information regarding PM By-Pass Activity in the semi-annual reports.

- (1) Number of times the PM vent stream by-passes the reclamation unit (EP 214) and is vented to the atmosphere.
  - (2) Duration of each by-pass to the atmosphere.
  - (3) Calculated quantity of lb/hr PM emitted for each by-pass.
- d. TAC**
- i. See Plantwide Reporting TAC section.
- e. VOC**
- i. The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports:
    - (1) Emission Unit ID number.
    - (2) Identification of all periods of exceedances of the VOC emission limit including the quantity of excess emissions.
    - (3) If the 5 tons per 12 consecutive month plantwide VOC limit is exceeded, the VOC lb/gal as applied.
    - (4) Reason for excess emissions whether process upset, other known causes, or unknown causes.
    - (5) Description of any corrective action taken.
  - ii. See Plantwide Reporting VOC section.

**Emission Unit U42: PVC Fluidized Bed (AP3)****Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                                                               |                            |
|------------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                                                                  | <b>Applicable Sections</b> |
| 6.09                                     | Standards of Performance for Existing Process Operations                                      | 1, 2, 3, and 5             |
| 6.16                                     | Standards of Performance for Existing Large Appliance Surface coating Operations              | 1 through 6                |
| 7.08                                     | Standards of Performance for New Process Operations                                           | 1 through 3                |
| 7.09                                     | Standards of Performance for New Process Gas Streams                                          | 1 through 5                |
| 40 CFR 63 Subpart A                      | General Provisions                                                                            | All                        |
| 40 CFR 63 Subpart NNNN                   | National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances | 63.4080 through 63.4181    |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                                     |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                                        | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                                         | 1, 2                       |
| 5.01                                                        | General Provisions                                                                                  | 1 through 2                |
| 5.02                                                        | Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants | All                        |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant              | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                              | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant             | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                                | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                                     |                            |

**Equipment**

| <b>Emission Point</b> | <b>Description</b>                                            | <b>Install Date</b> | <b>Applicable Regulations</b>                           | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|---------------------------------------------------------------|---------------------|---------------------------------------------------------|-------------------|-------------------|
| EP 309                | Fluid Bed                                                     | unk                 | STAR, 6.09                                              | N/A               | S-32              |
| EP 310                | Post Heat Eclipse Air Heat Oven <sup>20</sup><br>3.5 MMBtu/hr | unk                 | STAR, 6.16,<br>7.08, 7.09<br>40 CFR 63,<br>Subpart NNNN | N/A               | S-33              |

<sup>20</sup> Emission Point EP 310 was previously permitted on construction permit 29161-10-C(R3) effective date June 13, 2012. Revision R1 allowed for the ovens to be moved from Research and Development use to production activities. Revision R2 allowed for a capacity increase of the Post Heat Oven from 1.4 MMBtu/hr capacity to 1.8 MMBtu/hr due to a change in the designed air flow. Revision R3 allows for a capacity increase of the Post Heat Oven from 1.8 MMBtu/hr capacity to 3.5 MMBtu/hr due to a change in the design.

## U42 Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. CO

- i. The owner or operator of a facility (oven, EP 310) shall not emit carbon monoxide gases from a process unless they are burned at 1,300°F for 0.5 seconds or greater in a direct flame afterburner or equivalent device equipped with an indicating pyrometer that is positioned in the working area at the operator's eye level.<sup>21</sup> [Regulation 7.09, section 5.1]

#### b. HAP

- i. See Appendix B.

#### c. NO<sub>x</sub>

- i. The owner or operator shall not cause to be discharged into the atmosphere from any affected facility (oven, EP 310) or from any air pollution control equipment installed on any affected facility any NO<sub>x</sub> fumes in excess of 300 ppm by volume expressed as NO<sub>2</sub>.<sup>22</sup> [Regulation 7.08, section 4]
- ii. See Plantwide Standards NO<sub>x</sub> section.

#### d. Opacity

- i. The owner or operator shall not cause to be discharged into the atmosphere from any affected facility (fluid bed, EP 309 and oven, EP 310) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is equal to or greater than 20% opacity. [Regulation 6.09, section 3.1 and Regulation 7.08, section 3.1.1]

#### e. PM

- i. The owner and operator shall not cause to be discharged into the atmosphere from any affected facility (fluid bed, EP 309) or from any air pollution control equipment installed on any affected facility, any gases that may

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<sup>21</sup> The CO emissions from the process are created by the combustion of natural gas to generate heat. The nominal flame temperature of greater than 2,000°F, exceeds the 1,300°F temperature requirement of 7.09, section 5.1, therefore the District has determined that this will be equivalent to a direct flame afterburner.

<sup>22</sup> A one-time NO<sub>x</sub> compliance demonstration using AP-42 emission factors and combusting natural gas was performed, and the emission standard should be met uncontrolled.

contain particulate matter that is in excess of 2.58 lbs/hr based on actual operating hours in a calendar day.<sup>23,24</sup> [Regulation 6.09, section 3.2]

- ii. The owner and operator shall not cause to be discharged into the atmosphere from any affected facility (oven, EP 310) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is in excess of 2.34 lbs/hr based on actual operating hours in a calendar day.<sup>25</sup> [Regulation 7.08, section 3.1.2]

**f. SO<sub>2</sub>**

- i. The owner or operator shall not allow the affected facility (EP 310) emissions of the pollutant SO<sub>2</sub> to equal or exceed 40 tons during any twelve consecutive month period.<sup>26</sup> [Regulation 7.09, section 4]

OR

- ii. The owner or operator shall not cause or allow at an the affected facility (EP 310) the release of a process gas stream containing sulfur dioxide with a concentration greater than 28.63 grains per 100 dscf at 0% excess oxygen. [Regulation 7.09, section 4]

**g. TAC**

- i. See Plantwide Standards TAC section.

**h. VOC**

- i. The VOC content of the coatings of the affected facility shall be less than 0.34 kilograms per liter of coating (2.8 pounds per gallon), excluding water and exempt solvents, delivered to the applicators associated with the prime, single or topcoat coating line. [Regulation 6.16, Section 5.1]

OR

- ii. No person shall cause, allow or permit an affected facility to discharge into the atmosphere more than 15% by weight of the VOCs input into the affected facility unless said person has qualified for an exemption pursuant to Regulation 6.16, section 5.

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<sup>23</sup> The potential controlled PM/PM<sub>10</sub> emissions for this project were 1.87 tpy, which was below the significant levels of 25 tpy / 15 tpy respectively for PSD/Nonattainment NSR.

<sup>24</sup> A stack test was performed on August 10, 2010 and the results were submitted to the District on September 29, 2010 for EP 309. The test yielded an average emission rate 0.08 pounds of particulate per hour from the Fluid Bed Rack Coater before controls. GE will no longer perform particulate matter monitoring, record keeping, or reporting emission unit number U42.

<sup>25</sup> A one-time compliance demonstration has been performed and the lb/hr PM emission standard should be met uncontrolled for EP 310.

<sup>26</sup> A one-time SO<sub>2</sub> compliance demonstration using AP-42 emission factors and combusting natural gas was performed, and the emission standard should be met uncontrolled.

- iii. See Plantwide Standards VOC section.

## **S2. Monitoring and Record Keeping**

[Regulation 2.16, section 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

### **a. CO**

- i. There are no monitoring or record keeping requirements for CO compliance.

### **b. HAP**

- i. See Appendix B.

### **c. NO<sub>x</sub>**

- i. There are no monitoring or record keeping requirements for NO<sub>x</sub> compliance related to Regulation 7.08.
- ii. See Plantwide Monitoring and Record Keeping NO<sub>x</sub> section.

### **d. Opacity**

- i. There are no monitoring or record keeping requirements for this equipment.<sup>27</sup>

### **e. PM**

- i. There are no monitoring or record keeping requirements for this equipment.

### **f. SO<sub>2</sub>**

- i. There are no monitoring or record keeping requirements for SO<sub>2</sub> compliance for meeting the 40 tons during any twelve consecutive months.

### **g. TAC**

- i. See Plantwide Monitoring and Record Keeping TAC section.

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<sup>27</sup> The District has determined that no periodic visible emissions surveys are required for this emission unit.

**h. VOC**

- i. The owner or operator shall maintain the following records daily:
  - (1) The rule number applicable to the operation for which the records are being maintained.
  - (2) The application method and substrate type (metal, plastic, paper, etc.).
  - (3) The amount and type of adhesive, coatings (including catalyst and reducer for multi-component coatings), solvent, and/or graphic arts material used at each point of application, including exempt compounds.
  - (4) The VOC content as applied in each adhesive, coating, solvent, and/or graphic arts material.
  - (5) The date for each application of adhesive, coating, solvent, and/or graphic arts material.
  - (6) The amount of surface preparation, clean-up, wash-up, of solvent (including exempt compounds) used and the VOC content of each.
  - (7) The oven temperature when an oven is part of the coating line. [Regulation 6.16, section 6.1]
- ii. VOC content shall be calculated using a percent solids basis (less water and exempt solvents) for adhesives, coating, and inks; using EPA Method 24. [Regulation 6.16, section 6.1]
- iii. The owner or operator shall be allowed to maintain a one-time record of the coating material method-of-application and VOC content and to notify the District if the company decides to make any changes to this information in order to demonstrate compliance with the daily record keeping requirements.
- iv. See Plantwide Monitoring and Record Keeping VOC section.

**S3. Reporting**

[Regulation 2.16, section 4.1.1]

The owner or operator shall report the following information, as required by General Condition G14:

**a. CO**

- i. There are no compliance reporting requirements for this equipment.

**b. HAP**

- i. See Appendix B.

**c. NO<sub>x</sub>**

- i. There are no compliance reporting requirements for this equipment related to Regulation 7.08.
- ii. See Plantwide Reporting NO<sub>x</sub> section.

**d. Opacity**

- i. There are no compliance reporting requirements for the equipment.

**e. PM**

- i. There are no compliance reporting requirements for the equipment.

**f. SO<sub>2</sub>**

- i. There are no compliance reporting requirements for this equipment for meeting the 40 tons during any twelve consecutive months.

**g. TAC**

- i. See Plantwide Reporting TAC section.

**h. VOC**

- i. The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports:
  - (1) Identification of all periods of exceedances of the VOC limit including the quantity of excess emissions.
  - (2) Reason for excess emissions.
  - (3) Description of corrective action taken to prevent future exceedances.
- ii. See Plantwide Reporting VOC section.

**S4. Testing**

[Regulation 2.16, section 4.3.1]

**a. General Requirements**

These conditions apply for all testing unless superseded by requirements listed in the individual emission units.

- i. Equipment of similar design may be represented by a common performance test contingent upon review and approval of the testing protocol by the District.
- ii. The owner or operator shall perform a capture efficiency test using EPA guidelines. In lieu of performing a capture efficiency test, the owner or operator may submit a reasonable estimate of capture efficiency with thorough justification in the written test plan (stack test protocol), subject to approval by the District.
- iii. Before conducting a performance test, the owner or operator shall submit a written performance test plan (stack test protocol). The plan shall include the EPA test methods that will be used for testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators that will be monitored during the performance test. The test plans shall be furnished to the District at least 30 calendar days prior to the actual date of the performance test. The Protocol Checklist for a Performance Test is attached to this permit as Appendix E. This checklist provides information that must be provided in the protocol.
- iv. The owner or operator shall provide the District at least 10 working days prior notice of any performance test to afford the District the opportunity to have an observer present.
- v. The owner or operator shall furnish the District with a written report of the results of the performance test within 60 calendar days following the actual date of completion of the performance test.

**b. PM**

- i. Before December 31, 2020, the owner or operator shall perform an EPA Reference Method 5 performance test on the inlet and outlet of the control device or emission point to determine the emission rate and control efficiency. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which results in the greatest emissions may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.
  - (1) Before adopting a control efficiency for any control device greater than that shown in the Calculation Methodology attachment to this

permit, the owner or operator shall perform an EPA Reference Method 5 performance test on the inlet and outlet of the control device or emission point to determine the emission rate and control efficiency.

**Emission Units U81 and U82:  
Gas-fired Boilers and Indirect-fired Process Heat Exchangers**

**Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                                                                                                                   |                            |
|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                                                                                                                      | <b>Applicable Sections</b> |
| 6.07                                     | Standards of Performance for Existing Indirect Heat Exchangers                                                                                    | 1,2,3.1,3.2,3.3 and 4.1    |
| 6.42                                     | Reasonably Available Control Technology Requirements for Major Volatile Organic Compound and Nitrogen Oxides Emitting Facilities                  | 1, 2, 3, 4.3, 5            |
| 7.06                                     | Standards of Performance for New Indirect Heat Exchangers                                                                                         | 1, 2, 3, and 4             |
| 40 CFR 60 Subpart A                      | General Provisions                                                                                                                                | All                        |
| 40 CFR 60 Subpart Dc                     | Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units                                                     | 40 CFR 60.40c(a)           |
| 40 CFR 63 Subpart A                      | General Provisions                                                                                                                                | All                        |
| 40 CFR 63 Subpart DDDDD                  | National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters | 63.7480 through 63.7575    |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                                     |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                                        | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                                         | 1, 2                       |
| 5.02                                                        | Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants | 1, 3.95 and 4              |
| 5.01                                                        | General Provisions                                                                                  | 1 through 2                |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant              | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                              | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant             | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                                | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                                     |                            |

**Equipment**<sup>28, 29, 30</sup>

| Emission Point | Description                                                                                                                                                                                                                              | Install Date       | Applicable Regulations                                    | Control ID | Release ID |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------------------------------------|------------|------------|
| EP 909         | Boiler #8 rated at 60.9 MM Btu/hr equipped with low NO <sub>x</sub> burners with landfill gas as backup                                                                                                                                  | 2007               | STAR, 7.06, 40 CFR 60 Subpart Dc, 40 CFR 63 Subpart DDDDD | N/A        | S-U81      |
| 325A           | Aerco boiler, 2.0 MMBtu/hr, natural gas-fired (insignificant activity)                                                                                                                                                                   | 2018 <sup>31</sup> | STAR, 7.06, 40 CFR 63 Subpart DDDDD                       | N/A        | N/A        |
| 326A           | Aerco boiler, 2.0 MMBtu/hr, natural gas-fired (insignificant activity)                                                                                                                                                                   | 2018 <sup>31</sup> |                                                           | N/A        | N/A        |
| 327            | Aerco boiler, 2.0 MMBtu/hr, natural gas-fired (insignificant activity)                                                                                                                                                                   | 2018 <sup>31</sup> |                                                           | N/A        | N/A        |
| AP1HA1         | Wash System for Stainless Steel Washer and Dryer Baskets that consists of a heated bath that has a natural gas fired burner for heating. The Immersion Heater is an Eclipse ImmersoPak IP-010, 3.2 MMBtu/hr <sup>32</sup> (burner is IA) | unk                | STAR, 7.06, 40 CFR 63 Subpart DDDDD                       | N/A        | N/A        |
| AP1BM1         | AERCO 2 MMBtu/hr Natural Gas Fired Hot Water Boiler, model BMK2.0LNGWB (AP-1) (IA)                                                                                                                                                       | unk                |                                                           | N/A        | N/A        |
| AP1BM2         | AERCO 2 MMBtu/hr Natural Gas Fired Hot Water Boiler, model BMK2.0LNGWB (AP-1) (IA)                                                                                                                                                       | unk                | STAR, 7.06, 40 CFR 63 Subpart DDDDD                       | N/A        | N/A        |
| AP1BM3         | AERCO 2 MMBtu/hr Natural Gas Fired Hot Water Boiler, model BMK2.0LNGWB (AP-1) (IA)                                                                                                                                                       | unk                |                                                           | N/A        | N/A        |

<sup>28</sup> The coal fired boilers 1-5 were permanently disabled since the stokers feeding units have been physically cut preventing receiving and feeding of coal. The gas-fired boiler #7 has been removed from the permit per correspondence dated September 25, 2008. The gas-fired boiler #6 removal was approved February 19, 2019 (document #21326) in the letter recognizing IA01-16 in this emission unit.

<sup>29</sup> The nine AERCO low NO<sub>x</sub> natural gas fired hot water boilers (AP1xxx, AP2xxx and AP3xxx) were previously permitted on construction permit 33022-11-C.

<sup>30</sup> Per STAR Regulation 5.21, Section 2.7 the TAC emissions from the combustion of natural gas are de minimis by definition.

<sup>31</sup> IA approval dated August 23, 2018, document #17745. This letter also approved the removal of emission points 325 and 326, Cleaver Brooks boilers AP4#1 and AP4#2.

<sup>32</sup> The wash system for stainless steel washer and dryer baskets that consists of a heated bath that has a natural gas fired burner for heating (the Eclipse ImmersoPak IP-010 3.2 MMBtu/hr) was previously permitted on construction permit 36340-12-C.

| Emission Point | Description                                                                                                  | Install Date | Applicable Regulations              | Control ID | Release ID |
|----------------|--------------------------------------------------------------------------------------------------------------|--------------|-------------------------------------|------------|------------|
| AP2BM1         | AERCO 2 MMBtu/hr Natural Gas Fired Hot Water Boiler, model BMK2.0LNGWB (AP-2) (IA)                           | unk          | STAR, 7.06, 40 CFR 63 Subpart DDDDD | N/A        | N/A        |
| AP2BM2         | AERCO 2 MMBtu/hr Natural Gas Fired Hot Water Boiler, model BMK2.0LNGWB (AP-2) (IA)                           | unk          | STAR, 7.06, 40 CFR 63 Subpart DDDDD | N/A        | N/A        |
| AP2BM3         | AERCO 2 MMBtu/hr Natural Gas Fired Hot Water Boiler, model BMK2.0LNGWB (AP-2) (IA)                           | unk          |                                     | N/A        | N/A        |
| AP3BM1         | AERCO 2 MMBtu/hr Natural Gas Fired Hot Water Boiler, model BMK2.0LNGWB (AP-3) (IA)                           | unk          |                                     | N/A        | N/A        |
| AP3BM2         | AERCO 2 MMBtu/hr Natural Gas Fired Hot Water Boiler, model BMK2.0LNGWB (AP-3) (IA)                           | unk          |                                     | N/A        | N/A        |
| AP3BM3         | AERCO 2 MMBtu/hr Natural Gas Fired Hot Water Boiler, model BMK2.0LNGWB (AP-3) (IA)                           | unk          |                                     | N/A        | N/A        |
| EP-1A          | Washer Immersion Heater Stage 1 Maxon 8" Tube-O-Therm rated at 5.3 MMBtu/hr (IA)                             | unk          |                                     | N/A        | N/A        |
| EP-1B          | Washer Immersion Heater Stage 2 Maxon 6" Tube-O-Therm rated at 3.0 MMBtu/hr (IA)                             | unk          |                                     | N/A        | N/A        |
| IA01-2         | Two Eclipse ImmersoPak IP008 heater rated at 2.05 MMBtu/hr (IA)                                              | unk          |                                     | N/A        | N/A        |
| IA01-3         | One (1) 7.5 MMBtu/hr Maxon Tube-O-Therm 8" HC for steel parts cleaning in AP1 (IA)                           | unk          |                                     | N/A        | N/A        |
| IA01-16        | Eclipse ImmersoPak IP008 heater rated at 2.05 MMBtu/hr (IA) <sup>33</sup>                                    | 2019         |                                     | N/A        | N/A        |
| IA01-5         | 1.99 MMBtu/hr Bradford White hot water heater in the Park Athletic Club < 120 gallon tank (IA) <sup>34</sup> | unk          | STAR, 7.06                          | N/A        | N/A        |

<sup>33</sup> IA approval dated February 19, 2019, document #21326

<sup>34</sup> This equipment is not subject to 40 CFR 63 Subpart DDDDD. It meets the definition of hot water heater in the regulation.

## U81 and U82 Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

**a. HAP** <sup>35, 36</sup>

- i. For all equipment except IA01-5:
  - (1) The owner or operator must meet each work practice standard in Table 3 to 40 CFR 63 Subpart DDDDD <sup>37</sup> that applies to your boiler or process heater, for each boiler or process heater.  
[40 CFR 63 Subpart DDDDD, table 3]
  - (2) At all times, the owner or operator 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. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.  
[40 CFR 63.7500(a)(3)]
  - (3) Boilers and process heaters in the units designated to burn gas 1 fuels subcategory with a heat input capacity of less than or equal to 5 million Btu per hour must complete a tune-up every 5 years as specified in 40 CFR 63.7540. Boilers and process heaters in the units designated to burn gas 1 fuels subcategory with a heat input capacity greater than 5 and less than 10 million Btu per hour must complete a tune-up every 2 years as specified in 40 CFR 63.7540. Boilers and process heaters in the units designated to burn gas fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to this subpart, or the operating limits in Table 4 to this subpart.  
[40 CFR 63.7500(e)]
  - (4) The owner or operator must be in compliance with the emission limits, work practice standards, and operating limits in 40 CFR 63 Subpart DDDDD. These limits apply to you at all times the affected unit is operating except for the periods noted in 40 CFR 63.7500(f).  
[40 CFR 63.7505(a)]

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<sup>35</sup> New or reconstructed boilers or process heaters include Emission Points: 325A, 326A, 327, AP1HA1, AP1BM1, AP1BM2, AP1BM3, AP2BM1, AP2BM2, AP2BM3, AP3BM1, AP3BM2, AP3BM3, EP-1A, EP-1B, IA01-2, IA01-3, and IA01-16.

<sup>36</sup> Existing boilers or process heaters include Emission Points: EP 909.

<sup>37</sup> See Appendix C for 40 CFR 63 Subpart DDDDD Table 3.

- (5) For existing affected sources, the owner or operator must complete the initial tune-up by following the procedures described in 40 CFR 63.7540(a)(10)(i) through (vi) no later than January 31, 2016 except as specified in 40 CFR 63.7510(j). You must complete the one-time energy assessment specified in Table 3 to 40 CFR 63 Subpart DDDDD no later than January 31, 2016, except as specified in 40 CFR 63.6(i). [40 CFR 63.7510(e)]
- (6) For new or reconstructed affected sources, the owner or operator must demonstrate initial compliance with the applicable work practice standards in Table 3 to this subpart within the applicable annual, biennial, or 5-year schedule as specified in 40 CFR 63.7515(d) following the initial compliance date, April 1, 2013, or upon startup of the boiler or process heater, whichever is later. Thereafter, you are required to complete the applicable annual, biennial, or 5-year tune-up as specified in 40 CFR 63.7515(d). [40 CFR 63.7510(g)]
- (7) If you are required to meet an applicable tune-up work practice standard, you must conduct an annual, biennial, or 5-year performance tune-up according to § 63.7540(a)(10), (11), or (12), respectively. Each annual tune-up specified in § 63.7540(a)(10) must be no more than 13 months after the previous tune-up. Each biennial tune-up specified in § 63.7540(a)(11) must be conducted no more than 25 months after the previous tune-up. Each 5-year tune-up specified in § 63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed affected source (as defined in § 63.7490), the first annual, biennial, or 5-year tune-up must be no later than 13 months, 25 months, or 61 months, respectively, after the initial startup of the new or reconstructed affected source. [40 CFR 63.7515(d)]
- (8) The owner or operator must demonstrate continuous compliance with the work practice standards in Table 3 to 40 CFR Subpart DDDDD according to the methods specified in 40 CFR 7540(a)(1) through (19). [40 CFR 63.7540(a)]
  - (a) The owner or operator of a boiler or process heater has a heat input capacity of 10 million Btu per hour greater, you must conduct an annual tune-up of the boiler or process heater to demonstrate continuous compliance as specified in 40 CFR 63.7540(a)(10)(i) through (vi). This frequency does not apply to units with continuous oxygen trim systems that maintain an optimum air to fuel ratio. [40 CFR 63.7540(a)(10)]
    - (i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next

- scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;  
[40 CFR 63.7540(a)(10)(i)]
- (ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;  
[40 CFR 63.7540(a)(10)(ii)]
  - (iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown);  
[40 CFR 63.7540(a)(10)(iii)]
  - (iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO<sub>x</sub> requirement to which the unit is subject; and  
[40 CFR 63.7540(a)(10)(iv)]
  - (v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.  
[40 CFR 63.7540(a)(10)(v)]
- (b) The owner or operator of a boiler or process heater that has a heat input capacity of less than 10 million Btu per hour (except as specified in 40 CFR 63.7540(a)(12)), you must conduct a biennial tune-up of the boiler or process heater as specified in 40 CFR 63.7540(a)(10)(i) through (vi) to demonstrate continuous compliance.  
[40 CFR 63.7540(a)(11)]
  - (c) The owner or operator of a boiler or process heater that has a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour and the unit is in the units designed to burn gas 1; units designed to burn gas 2 (other); or units designed to burn light liquid subcategories, or meets the

definition of limited-use boiler or process heater in 40 CFR 63.7575, you must conduct a tune-up of the boiler or process heater every 5 years as specified in 40 CFR 63.7540(a)(10)(i) through (vi) of this section to demonstrate continuous compliance. You may delay the burner inspection specified in 40 CFR 63.7540(a)(10)(i) until the next scheduled or unscheduled unit shutdown, but you must inspect each burner at least once every 72 months.  
[40 CFR 63.7540(a)(12)]

**b. NO<sub>x</sub>**

- i. See Plantwide Standards NO<sub>x</sub> section.

**c. Opacity**

- i. For every emission point in this emission unit: The owner or operator shall not cause the emission into the open air of particulate matter from any indirect heat exchanger which is greater than 20%.  
[Regulation 6.07, sections 3.2 and Regulation 7.06, section 4.2]<sup>38</sup>

**d. PM**<sup>39</sup>

- i. For Boiler #8 (EP 909):
- (1) The owner or operator shall not cause to be discharged into the atmosphere from that affected facility particulate matter in excess of 0.21 lb/MMBtu actual total heat input.  
[Regulation 7.06, section 4.1.4]
- ii. For all the other emission points combined:
- (1) The owner or operator shall not cause to be discharged into the atmosphere from that affected facility particulate matter in excess of 0.15 lb/MMBtu actual total heat input.  
[Regulation 7.06, section 4.1.4]

**e. SO<sub>2</sub>**<sup>39</sup>

- i. For Boiler #8 (EP 909):
- (1) The owner or operator shall not cause to be discharged into the atmosphere from that affected facility any gases which contain sulfur dioxide in excess of 1.0 lb/MMBtu actual total heat input for

<sup>38</sup> The District has determined that using a natural gas fired boiler will inherently meet the 20% opacity standard in Regulation 7.06 and 6.07.

<sup>39</sup> One-time PM and SO<sub>2</sub> compliance demonstrations have been performed for all the boilers on May 14, 2007, April 3, 2007, and 2017, using AP-42 emission factors and combusting natural gas, and the emission standards should be met uncontrolled. The record keeping is to show compliance with 40 CFR 60 Subpart D<sub>C</sub> for Boiler #8.

combustion of liquid and gaseous fuels.  
[Regulation 7.06, section 5.1.1]

ii. For all the other emission points combined:

- (1) The owner or operator shall not cause to be discharged into the atmosphere from that affected facility any gases which contain sulfur dioxide in excess of 1.0 lb/MMBtu actual total heat input for combustion of liquid and gaseous fuels.  
[Regulation 7.06, section 5.1.1]

**f. TAC**

i. See Plantwide Standards TAC section.

**S2. Monitoring and Record Keeping**

[Regulation 2.16, sections 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

**a. HAP**

- i. The owner or operator shall maintain on-site and submit, if requested by the Administrator (The District), a report containing the information in 40 CFR 63.7540(a)(10)(vi)(A) through (C). [40 CFR 63.7540(a)(10)(vi)]
- (1) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. [40 CFR 63.7540(10)(vi)(A)]
- (2) A description of any corrective action taken as a part of the tune-up. [40 CFR 63.7540(10)(vi)(B)]
- (3) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.  
[40 CFR 63.7540(10)(vi)(C)]
- ii. The owner or operator must keep a copy of each notification and report that you submitted to comply with 40 CFR 63 Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or compliance report that you submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv).<sup>40</sup> [40 CFR 63.7555(a)(1)]

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<sup>40</sup> GE submitted an initial notification for 40 CFR 63 Subpart DDDDD on May 2, 2013. GE submitted the notification of compliance status on March 21, 2016

- iii. Records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1) and as specified in 40 CFR 63.10(b)(1) you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR 63.7560(a) & (b)]
  - iv. The owner or operator must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). You can keep the records off site for the remaining 3 years. [40 CFR 63.7560(c)]
- b. NO<sub>x</sub>**
- i. See Plantwide Monitoring and Record Keeping NO<sub>x</sub> section.
- c. Opacity**
- i. There are no monitoring or record keeping requirements for this pollutant.
- d. PM**
- i. There are no monitoring or record keeping requirements for this pollutant.
- e. SO<sub>2</sub>**
- i. The owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO<sub>2</sub> standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month. [40 CFR 60.48c(g)(2)]
  - ii. For Boiler #8 (EP 909), the owner or operator shall keep a monthly record of the hours of operation.
- f. TAC**
- i. See Plantwide Monitoring and Record Keeping TAC section

**S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition 14:

**a. HAP****i. Notifications**

- (1) *General.* The owner or operator shall submit to the Administrator all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified. [40 CFR 63.7545(a)]
- (2) *Notification of Compliance Status.* The owner or operator shall submit a Notification of Compliance Status in accordance with 40 CFR 63.9(h)(2)(ii). [40 CFR 63.7545(e)]
- (3) The owner or operator must include with the Notification of Compliance Status a signed certification that the energy assessment was completed according to Table 3 to 40 CFR 63 Subpart DDDDD and is an accurate depiction of your facility at the time of the assessment. [40 CFR 63.7530(e)]
- (4) The owner or operator must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in 40 CFR 63.7545(e). [40 CFR 63.7530(f)]

ii. *Compliance reports.* The owner or operator shall submit compliance reports containing the information prescribed in 40 CFR 63.7550(c)(5) as applicable by the date(s) prescribed in 40 CFR 63.7550(b).

iii. *Submittal of required reports.* The owner or operator shall submit all reports required under 40 CFR 63 Subpart DDDDD in accordance with the procedures prescribed in 40 CFR 63.7550(h)(3), as applicable. [40 CFR 63.7550(h)]

**b. NO<sub>x</sub>**

i. See Plantwide Reporting NO<sub>x</sub> section.

**c. Opacity**

i. There are no compliance reporting requirements for this pollutant.

**d. PM**

i. There are no compliance reporting requirements for this pollutant.

- e. SO<sub>2</sub>**
  - i. There are no compliance reporting requirements for this pollutant.
- f. TAC**
  - i. See Plantwide Reporting TAC section.

**Emission Unit U87: Gasoline Storage Tank and Dispensing****Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                                                                                |                            |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                                                                                   | <b>Applicable Sections</b> |
| 7.15                                     | Standards of Performance for Gasoline Transfer to New Service Station Storage Tanks (Stage One Vapor Recovery) | 1 through 6                |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                         |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                            | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                             | 1, 2                       |
| 5.01                                                        | General Provisions                                                                      | 1 through 2                |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant  | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                  | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                    | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                         |                            |

**Equipment** <sup>41</sup>

| <b>Emission Point</b> | <b>Description</b>                                                                            | <b>Install Date</b> | <b>Applicable Regulations</b> | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|-----------------------------------------------------------------------------------------------|---------------------|-------------------------------|-------------------|-------------------|
| Tank No. 900          | Underground Gasoline Storage Tank 6000 gallons (AP26) with gasoline dispensing. <sup>42</sup> | unk                 | STAR, 7.15                    | N/A               | N/A               |

<sup>41</sup> Tank 128, Aboveground Gasoline Storage Tank, with a 300 gallon capacity (AP1) has been removed.

<sup>42</sup> Per STAR Regulation 5.21, Section 2.6 the TAC emissions from motor vehicle fueling or refueling are *de minimis* by definition.

## U87 Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. TAC

- i. See Plantwide Standards TAC section.

#### b. VOC

- i. The owner or operator shall maintain and operate the following devices on the storage tank: [Regulation 7.15, section 3.1]
  - (1) Submerged fill pipe. [Regulation 7.15, section 3.1.1]
  - (2) If the gasoline storage tank is equipped with a separate gauge well, a gauge well drop tube shall be installed which extends to within six inches of the bottom of the tank. [Regulation 7.15, section 3.1.2]
  - (3) Vent line restrictions on the affected facility. [Regulation 7.15, section 3.1.3]
  - (4) Vapor balance system and vapor tight connections on the liquid fill and vapor return hoses. The cross-sectional area of the vapor return hose and any other vapor return passages in the circuit connecting the vapor space in the service station tank to that of the truck tank must be at least 50% of the liquid fill hose cross-sectional area for tank and free of flow restrictions to achieve acceptable recovery. The vapor balance equipment must be maintained according to the manufacturer's specifications. The type, size, and design of the vapor balance system are subject to the approval of the District. [Regulation 7.15, section 3.1.4]
- ii. The owner or operator may elect to use an alternate control system provided it can be demonstrated to the District's satisfaction to achieve an equivalent control efficiency. [Regulation 7.15, section 3.2]
- iii. The owner or operator shall not allow delivery of fuel to the storage tank until the vapor balance system is properly connected to the transport vehicle and the affected facility. [Regulation 7.15, section 3.3]
- iv. No person shall deliver gasoline to a service station without connecting the vapor return hose between the tank of the delivery truck and the storage tank receiving the product. The vapor balance system must be operating in accordance with the manufacturer's specifications. [Regulation 7.15, section 3.4]

- v. Opening of a truck tank hatch for the purpose of visual inspection is permitted for a period not to exceed one minute and only after pumping from that compartment has stopped for at least three minutes prior to the opening. All truck tank hatches must be closed during pumping. [Regulation 7.15, section 3.5]
- vi. All lines must be gravity drained in such a manner that upon disconnect no liquid spillage would be expected. [Regulation 7.15, section 3.6]
- vii. Equipment subject to this section shall be operated and maintained with no defects and: [Regulation 7.15, section 3.8]
  - (1) All fill tubes shall be equipped with vapor-tight covers including gaskets. [Regulation 7.15, section 3.8.1]
  - (2) All dry breaks shall have vapor-tight seals and shall be equipped with vapor-tight covers or dust covers. [Regulation 7.15, section 3.8.2]
  - (3) All vapor return passages shall be operated so there can be no obstruction of vapor passage from the storage tank back to the delivery vehicle. [Regulation 7.15, section 3.8.3]
  - (4) All storage tank vapor return pipes and fill pipes without dry breaks shall be equipped with vapor-tight covers including gaskets. [Regulation 7.15, section 3.8.4]
  - (5) All hoses, fitting, and couplings shall be in a vapor-tight condition. [Regulation 7.15, section 3.8.5]
- viii. See Plantwide Standards VOC section.

## **S2. Monitoring and Record Keeping**

[Regulation 2.16, sections 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

### **a. TAC**

- i. See Plantwide Monitoring and Record Keeping TAC section.

### **b. VOC**

- i. Compliance with Regulation 7.15 will be verified by inspections performed by District Personnel. [Regulation 7.15, section 6]
- ii. See Plantwide Monitoring and Record Keeping VOC section.

**S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition 14:

**a. TAC**

- i. See Plantwide Reporting TAC section.

**b. VOC**

- i. See Plantwide Reporting VOC section.

**IA Emission Unit U104 – U107: Metal Parts Fabrication (AP2)**

**Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                                          |                            |
|------------------------------------------|--------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                                             | <b>Applicable Sections</b> |
| 7.25                                     | Standard of Performance for New Sources Using Volatile Organic Compounds | 1 through 5                |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                         |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                            | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                             | 1, 2                       |
| 5.01                                                        | General Provisions                                                                      | 1 through 2                |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant  | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                  | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                    | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                         |                            |

**Equipment**

| <b>Emission Point</b> | <b>Description</b>                    | <b>Install Date</b> | <b>Applicable Regulations</b> | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|---------------------------------------|---------------------|-------------------------------|-------------------|-------------------|
| EP 224                | Lubricant for Door Panel Press #25001 | unk                 | STAR, 7.25                    | N/A               | N/A               |
| EP 225                | Lubricant for Door Panel Press #25002 | unk                 |                               | N/A               | N/A               |
| EP 226                | Lubricant for Door Panel Press #25378 | unk                 |                               | N/A               | N/A               |
| EP 227                | Lubricant for Door Panel Press #58737 | unk                 |                               | N/A               | N/A               |

## U104 – U107 Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. TAC

- i. See Plantwide Standards TAC section.

#### b. VOC

- i. The owner or operator shall not allow VOC emissions to exceed 3 tons per year combined for emission points EP 224 – EP 227.<sup>43</sup>  
[Construction Permit 185-01-C] [Regulation 7.25, section 3.1]
- ii. See Plantwide Standards VOC section.

### S2. Monitoring and Record Keeping

[Regulation 2.16, sections 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

#### a. TAC

- i. See Plantwide Monitoring and Record Keeping TAC section.

#### b. VOC

- i. There are no monitoring or record keeping requirements for this equipment related to the Regulation 7.25 VOC emission limit.
- ii. See Plantwide Monitoring and Record Keeping VOC section.

### S3. Reporting

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition 14:

#### a. TAC

- i. See Plantwide Reporting TAC section.

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<sup>43</sup> The potential combined VOC emissions for emission points (U104-U107) is below the limit listed in Specific Condition S1. based on one-time compliance demonstrations dated December 2, 2002 and April 28, 2003.

**b. VOC**

- i. There are no compliance reporting requirements for this equipment related to the Regulation 7.25 VOC emission limit.
- ii. See Plantwide Reporting VOC section.

**Emission Unit U109: Abrasive Blasting (AP2)  
(Hanger Paint Stripping Process)**

**Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                        |                            |
|------------------------------------------|--------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                           | <b>Applicable Sections</b> |
| 2.05                                     | Prevention of Significant Deterioration of Air Quality | 1                          |
| 7.08                                     | Standards of Performance for New Process Operations    | 1, 2, 3                    |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                         |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                            | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                             | 1, 2                       |
| 5.01                                                        | General Provisions                                                                      | 1 through 2                |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant  | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                  | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                    | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                         |                            |

**Equipment**

| <b>Emission Point</b> | <b>Description</b>                                                                          | <b>Install Date</b> | <b>Applicable Regulations</b> | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|---------------------------------------------------------------------------------------------|---------------------|-------------------------------|-------------------|-------------------|
| EP 239                | Abrasive blasting unit by Blastec using steel shot rated @ 320,000 lbs blast media per hour | 2003 <sup>44</sup>  | 2.05, STAR, 7.08              | C109, C110        | N/A               |

**Control Devices**

| <b>Control ID</b> | <b>Description</b>            | <b>Control Efficiency</b> |
|-------------------|-------------------------------|---------------------------|
| C109              | Cartridge Type Dust Collector | 98%                       |
| C110              | Safety Monitoring Filter      | 90%                       |

<sup>44</sup> Application was received 12/22/2002.

## U109 Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. Opacity

- i. The owner or operator shall not cause to be discharged into the atmosphere from any affected facility (blasting unit, EP 239) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is equal to or greater than 20% opacity. [Regulation 7.08, section 3.1.1]

#### b. PM/PM<sub>10</sub>

- i. The owner and operator shall not cause to be discharged into the atmosphere from any affected facility (blasting unit, EP 239) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is in excess of 38.99 lbs/hr based on actual operating hours in a calendar day.<sup>45</sup> [Regulation 7.08, section 3.1.2]
- ii. The owner and operator shall not cause to be discharged into the atmosphere from any affected facility (blasting unit, EP 239) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is equal to or in excess of 25 tons per 12-consecutive months of PM or 15 tons per 12-consecutive months of PM<sub>10</sub>.<sup>46</sup> [Regulation 2.05]
- iii. 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. [Regulation 1.05, section 5]

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<sup>45</sup> A one-time compliance demonstration has been performed on April 23, 2007 for PM and the standard should be met controlled. The uncontrolled PM emissions could exceed the applicable PM emission standard; therefore, the company is required to monitor the performance of the baghouses. The potential controlled PM emissions are below the applicable emission standard based on the maximum capacity of the equipment when calculated by mutually agreed emission factors and control efficiencies.

<sup>46</sup> Meeting the ton-per 12-consecutive months standards is required to avoid the requirements of the PSD regulations (40 CFR 52.21). Operating the control devices at all times the equipment is in operation will ensure that these PSD-avoidance standards are met.

**c. TAC**

- i. The owner or operator shall not allow manganese emissions to exceed *de minimis* for the abrasive blasting unit (EP 239).<sup>47</sup>  
[Regulation 5.21, section 4.3]
- ii. The owner or operator shall operate and maintain the control devices (C109 and C110) at all times the process equipment (blasting unit, EP 239) is in operation, including periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice to meet the standards. [Regulation 5.21, section 4.3]
- iii. See Plantwide Standards TAC section.

**S2. Monitoring and Record Keeping**

[Regulation 2.16, sections 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

**a. Opacity**

- i. The owner or operator shall, monthly, conduct a one-minute visible emissions survey, during normal operation, of the emission points. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.
- ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.
- iii. The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

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<sup>47</sup> As of the issuance of this permit, the *de minimis* level for manganese is 24 lb/12-consecutive month and 0.027 lb/hr.

**b. PM/PM<sub>10</sub>**

- i. The owner or operator shall either:
  - (1) maintain records, monthly, of the type and amount of products transferred<sup>48</sup> and maintain records, daily, of the hours of operation and calculate the monthly PM and PM<sub>10</sub> emissions by the method specified in Appendix D – Emission Factors and Calculation Methodology.  
OR
  - (2) maintain a record of the daily potential to emit.
- ii. The owner or operator shall maintain daily records of any periods of time where the process was operating and the control device was not operating or a declaration that the control device operated at all times that day when the process was operating.
- iii. If there is any time that the control device is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:
  - (1) Date;
  - (2) Start time and stop time;
  - (3) Identification of the control device and process equipment;
  - (4) PM emissions for each hour during the bypass in lb/hr;
  - (5) Summary of the cause or reason for each bypass event;
  - (6) Corrective action taken to minimize the extent or duration of the bypass event;
  - (7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.
  - (8) If this event is due to an upset condition, you must report as specified in District regulation 1.07, section 4.
- iv. The owner or operator shall perform and keep monthly records of visual inspections of the structural and mechanical integrity of the dust collectors C109 and C110 for signs of damage, air leakage, corrosion, etc. and repair as needed.

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<sup>48</sup> In this case the ‘product transferred’ is the amount of abrasive material throughput, as specified by the equipment manufacturer or by actual measurement. This is NOT the amount of abrasive material periodically added to make up for material lost.

**c. TAC**

- i. The owner or operator shall monthly calculate and record the monthly and 12-consecutive month manganese emissions for the abrasive blasting unit EP 239.
- ii. The owner or operator shall maintain records that identify all periods of bypassing the control device while the abrasive blasting unit is in operation. The record shall include the following:
  - (1) Date, duration (including start and stop time) of each bypass event.
  - (2) Identification of the control device and process equipment in operation.
  - (3) The total lb/hr and lb/12-consecutive-month period of each TAC during each bypass event.
  - (4) Summary information on the cause or reason for each control device bypass event.
  - (5) Corrective action taken to minimize the extent and duration of each bypass event.
  - (6) Measures implemented to prevent reoccurrence of the situation that resulted in bypassing the control device.
- iii. See Plantwide Monitoring and Record Keeping TAC section.

**S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition 14:

**a. Opacity**

- i. The date, time and results of each Method 9 that exceeded the opacity standard.
- ii. The number of surveys where visible emissions were observed.
- iii. Description of each corrective action taken.

**b. PM/PM<sub>10</sub>**

- i. The owner or operator shall report the calculated monthly and 12-month rolling total PM and PM<sub>10</sub> emissions for each month of the reporting period.
- ii. The owner or operator shall report the following information regarding PM By-Pass Activity in the semi-annual reports.

- (1) Number of times the PM vent stream by-passes the control device and is vented to the atmosphere.
- (2) Duration of each by-pass to the atmosphere.
- (3) Calculated quantity in lb/hr of PM emitted for each by-pass.

**c. TAC**

- i. The owner or operator shall report the monthly and 12-consecutive monthly lb Manganese emissions for each month in the reporting period for the abrasive blasting unit EP 239.
- ii. The owner or operator shall report all periods of bypassing the control device while the abrasive blasting unit is in operation during a reporting period and the environmentally acceptable emission limit is exceeded. The report shall include the following:
  - (1) Date, duration (including start and stop time) of each bypass event.
  - (2) The total lb/hr and lb/12-consecutive month period of each TAC during each bypass event.
  - (3) Summary information on the cause or reason for each control device bypass event.
  - (4) Corrective action taken to minimize the extent and duration of each bypass event.
  - (5) Measures implemented to prevent reoccurrence of the situation that resulted in bypassing the control device.
- iii. See Plantwide Reporting TAC section.

**Emission Unit U111: Emergency Generators (RICE MACT)****Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                                                                                   |                            |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                                                                                      | <b>Applicable Sections</b> |
| 40 CFR 63 Subpart A                      | General Provisions                                                                                                | All                        |
| 40 CFR 63 Subpart ZZZZ                   | National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines | 63.6580 through 63.6675    |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                         |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                            | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                             | 1, 2                       |
| 5.01                                                        | General Provisions                                                                      | 1 through 2                |
| 5.02                                                        | Adoption of National Emission Standards for Hazardous Air Pollutants                    | 1 and 4.87                 |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant  | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                  | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                    | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                         |                            |

**Equipment**

| <b>Emission Point</b> | <b>Description</b>                                                                                   | <b>Install Date</b> | <b>Applicable Regulations</b>       | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|------------------------------------------------------------------------------------------------------|---------------------|-------------------------------------|-------------------|-------------------|
| EP U111a              | AP1 Emergency Diesel-Fired Generator Engine, Cummins KTA50-G9, 1500 DFLE, 2220 bhp <sup>49, 50</sup> | 2006 <sup>51</sup>  | STAR,<br>40 CFR 63,<br>Subpart ZZZZ | N/A               | N/A               |
| EP AP3 Comms (IA)     | AP3 Communications Center Natural Gas Fired Emergency Generator Engine, Cummins GGLA, 198 HP         | 2005                |                                     | N/A               | N/A               |
| EP AP5 (IA)           | AP5 Emergency Diesel-Fired Generator Engine, Caterpillar D330, 150 HP                                | 1972                |                                     | N/A               | N/A               |

<sup>49</sup> Per 40 CFR 60 Subpart III Section 60.4200, engine EP U111a does not meet the requirements in this section to be subject to this regulation.

<sup>50</sup> EP U111a is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii). This engine is classified as a new emergency Engine and therefore is only required to meet the initial notification requirement and 40 CFR 63.6640(f).

<sup>51</sup> Manufactured May 2005 as specified in construction application submitted February 4, 2015 (eB#69245)

## U111 Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. HAP (40 CFR 63 Subpart ZZZZ)

- i. You must be in compliance with the emission limitations, operating limits, and other requirements in 40 CFR 63 Subpart ZZZZ that apply at all times. [40 CFR 63.6605(a)]
- ii. You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified.<sup>52</sup> [40 CFR 63.6645(a)]
- iii. At all times, you 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 owner or operator to make any further efforts to reduce emission if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the District 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 63.6605(b)]
- iv. EP AP-3 Comms and EP AP5 (Existing Major Source  $\leq$  500 HP): If you own or operate an existing emergency use stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the limitations in Table 2c to 40 CFR 63 Subpart ZZZZ as follows: [40 CFR 63.6602]
  - (1) Change oil and filter every 500 hours of operation or annually, whichever comes first. [40 CFR 63, subpart ZZZZ Table 2c]
  - (2) Inspect air cleaner for CI RICE and inspect spark plugs for SI RICE every 1,000 hours of operation or annually, whichever comes first. [40 CFR 63, subpart ZZZZ Table 2c]
  - (3) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR 63, subpart ZZZZ Table 2c]
  - (4) If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of 40

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<sup>52</sup> The initial notification for 40 CFR 63 Subpart ZZZZ was received October 25, 2005.

CFR 63 Subpart ZZZZ, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until emergency is over or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the unacceptable risk under Federal, State, or local law which the risk was deemed unacceptable. [40 CFR 63, subpart ZZZZ Table 2c]

- v. If you operator a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup requirements in Table 2c to 40 CFR 63, subpart ZZZZ apply. [40 CFR 63.6625(h)]
  
- vi. If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in 40 CFR 63.6640(f)(1) through (3) as listed below. In order for the engine to be considered an emergency stationary RICE under 40 CFR 63 Subpart ZZZZ, any operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 63.6640(f)(1) through (3), is prohibited. If the owner or operator does not operate the engine according to the requirements in 40 CFR 63.6640(f)(1) through (3), the engine will not be considered an emergency engine under 40 CFR 63 Subpart ZZZZ and must meet all requirements for non-emergency engines. [40 CFR 63.6640(f)]
  - (1) There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1)]
  - (2) You may operate the emergency stationary RICE for any combination of the purposes specified in 40 CFR 63.6640(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 63.6640(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 63.6640(f)(2). [40 CFR 63.6640(f)(2)]
    - (a) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the District for approval of additional hours to be used for maintenance checks and readiness testing, but a

petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [40 CFR 63.6640(f)(2)(i)]

- (b) EP AP-3 Comms and EP AP5 (Existing Major Source  $\leq$  500 HP): Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.<sup>53</sup> [40 CFR 63.6640(f)(2)(ii)]
- (c) EP AP-3 Comms and EP AP5 (Existing Major Source  $\leq$  500 HP): Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below the standard voltage or frequency.<sup>54</sup> [40 CFR 63.6640(f)(2)(ii)]
- (3) Emergency stationary RICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR 63.6640(f)(2). The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 63.6640(f)(3)]
- vii. EP AP-3 Comms and EP AP5 (Existing Major Source  $\leq$  500 HP): Beginning January 1, 2015, for existing CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted. [40 CFR 63.6604(b)]
- viii. EP U111a (New Major Source  $>$  500 HP): Beginning January 1, 2015, if you own or operate a new emergency CI stationary RICE with a site rating

<sup>53</sup> This condition only applies to EP AP-3 Comms and EP AP5.

<sup>54</sup> This condition only applies to EP AP-3 Comms and EP AP5.

of more than 500 brake HP and a displacement of less than 30 liters per cylinder located at a major source of HAP that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted. [40 CFR 63.6004(c)]

**b. NO<sub>x</sub>**

- i. See Plantwide Standards NO<sub>x</sub> section.

**c. TAC**

- i. Emission Point EP U111a: The owner or operator shall not allow hours of operation to equal or exceed 245 hours during each 12 consecutive month rolling period.<sup>55</sup> [Regulation 5.21, section 4.3]
- ii. See Plantwide Standards TAC section.

**S2. Monitoring and Record Keeping**

[Regulation 2.16, sections 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

**a. HAP (40 CFR 63 Subpart ZZZZ)**

- i. EP AP-3 Comms and EP AP5 (Existing Major Source ≤ 500 HP):
- (1) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)]
  - (2) If you own or operate an existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop its own maintenance plan which must provide to the extent practicable for the maintenance and operation

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<sup>55</sup> The source submitted an EA Demo on February 5, 2015 for Category 3 TAC Diesel Particulate Matter. The SCREEN3 modeling was limited to 245 hours resulting in the single process risk, R<sub>C</sub>, of 0.995 (max EAG<sub>C</sub>, 1.0). The environmental acceptability for this process has been demonstrated.

of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e)]

- (3) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63.6625(i)]
- (4) You must keep the records required in Table 6 of 40 CFR 63, subpart ZZZZ to show continuous compliance with each emission or operating limitation that applies. [40 CFR 63.6655(d)]
- (5) You must keep records of the maintenance conducted on the existing stationary emergency RICE in order to demonstrate that the owner or operator and maintained the stationary RICE according to the owner or operator's own maintenance plan. [40 CFR 63.6655(e)]
- (6) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in 40 CFR 63.6640(f)(2)(ii) or (iii), the owner or operator must keep records of the notification of the emergency situation, and the date,

start time, and end time the engine was operated for these purposes.  
[40 CFR 63.6655(f) and 40 CFR 63.6655(f)(1)]

- (7) Your records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1).  
[40 CFR 63.6660(a)]
- (8) As specified in 40 CFR 63.10(b)(1), each record must be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.  
[40 CFR 63.6660(b)]
- (9) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). [40 CFR 63.6660(c)]

**b. NO<sub>x</sub>**

- i. See Plantwide Monitoring and Record Keeping NO<sub>x</sub> section.

**c. TAC**

- i. Emission Point EP U111a: The owner or operator shall monitor and record the monthly and 12-month rolling total hours of operation.
- ii. See Plantwide Monitoring and Record Keeping TAC section.

**S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition 14:

**a. HAP (40 CFR 63 Subpart ZZZZ)**

- i. EP AP-3 Comms and EP AP5 (Existing Major Source ≤ 500 HP):
  - (1) If you own or operate an emergency stationary RICE with a site rating of more than 100 brake HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii), must submit an annual report according to the requirements in 40 CFR 63.6650(h)(1) through (3). [40 CFR 63.6650(h)]
    - (a) The report must contain the following information:  
[40 CFR 63.6650(h)(1)]
      - (i) Company name and address where the engine is located. [40 CFR 63.6650(h)(1)(i)]

- (ii) Date of the report and beginning and ending dates of the reporting period. [40 CFR 63.6650 (h)(1)(ii)]
  - (iii) Engine site rating and model year.  
[40 CFR 63.6650(h)(1)(iii)]
  - (iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.  
[40 CFR 63.6650(h)(1)(iv)]
  - (v) Hours operated for the purposes specified in §63.6640(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(2)(ii) and (iii). [40 CFR 63.6650(h)(1)(v)]
  - (vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §63.6640(f)(2)(ii) and (iii).  
[40 CFR 63.6650(h)(1)(iv)]
  - (vii) Hours spent for operation for the purpose specified in §63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(4)(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.  
[40 CFR 63.6650(h)(1)(vii)]
  - (viii) If there were no deviations from the fuel requirements in §63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.  
[40 CFR 63.6650(h)(1)(viii)]
  - (ix) If there were deviations from the fuel requirements in §63.6604 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.  
[40 CFR 63.6650(h)(1)(ix)]
- (b) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. [40 CFR 63.6650(h)(2)]
- (c) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the

report is due, the written report must be submitted to the Administrator at the appropriate address listed in §63.13.  
[40 CFR 63.6650(h)(3)]

**b. NO<sub>x</sub>**

- i. See Plantwide Reporting NO<sub>x</sub> section.

**c. TAC**

- i. Emission Point EP U111a: The owner or operator shall report the 12-month rolling total of the hours of operation for each month in the reporting period.
- ii. See Plantwide Reporting TAC section.

**Emission Unit U112: Emergency Generators  
(RICE MACT and NSPS CI-ICE)**

**Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                                                                                   |                            |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                                                                                      | <b>Applicable Sections</b> |
| 40 CFR 60 Subpart A                      | General Provisions                                                                                                | All                        |
| 40 CFR 60 Subpart III                    | Standards of Performance for Stationary Compression Ignition Internal Combustion Engines                          | 60.4200 through 60.4219    |
| 40 CFR 63 Subpart A                      | General Provisions                                                                                                | All                        |
| 40 CFR 63 Subpart ZZZZ                   | National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines | 63.6580 through 63.6675    |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                         |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                            | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                             | 1, 2                       |
| 5.01                                                        | General Provisions                                                                      | 1 through 2                |
| 5.02                                                        | Adoption of National Emission Standards for Hazardous Air Pollutants                    | 1 and 4.87                 |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant  | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                  | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                    | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                         |                            |

**Equipment** <sup>56</sup>

| <b>Emission Point</b> | <b>Description</b>                                                                                | <b>Install Date</b> | <b>Applicable Regulations</b>                                                 | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|---------------------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------|-------------------|-------------------|
| EP DC#1               | Kohler Diesel-Fired Emergency Generator Engine, 24.54 MMBtu/hr<br>Kohler 2500REOZDB, 3675 HP      | 2009                | STAR,<br>40 CFR 60<br>Subpart III,<br>40 CFR 63<br>Subpart ZZZZ <sup>57</sup> | N/A               | N/A               |
| EP DC#2               | Kohler Diesel-Fired Emergency Generator Engine, 24.54 MMBtu/hr<br>Kohler 2500REOZDB, 3675 HP      | 2009                |                                                                               | N/A               | N/A               |
| AP23a<br>(IA)         | Mitsubishi S12A2-Y2PTAW-2<br>Emergency Generator Engine,<br>900 kW (1207 HP)                      | 2014                |                                                                               | N/A               | N/A               |
| AP23b<br>(IA)         | Mitsubishi S12A2-Y2PTAW-2<br>Emergency Generator Engine,<br>900 kW (1207 HP)                      | 2014                |                                                                               | N/A               | N/A               |
| EP IWT<br>(IA)        | Backup Emergency Diesel-Fired<br>Generator Engine (IWT Generator)<br>John Deere 4024HF285B, 80 HP | 2015                |                                                                               | N/A               | N/A               |

<sup>56</sup> The initial notification for 40 CFR 63 Subpart ZZZZ was received October 25, 2005.

<sup>57</sup> For emergency engines located at major sources of HAPs that are subject to 40 CFR 60 Subpart III and less than 500 HP, there are no additional requirements in 40 CFR 63 Subpart ZZZZ.

## U112 Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. HAP (40 CFR 63 Subpart ZZZZ)

- i. If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with 40 CFR 63.6590(b), your notification should include the information in 40 CFR 63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion.<sup>58</sup>  
[40 CFR 63.6645(f)]

#### b. NO<sub>x</sub>

- i. See Plantwide Standards NO<sub>x</sub> section.

#### c. TAC

- i. For Emission Points EP DC#1 and EP DC#2 the owner or operator shall not allow combined hours of operation to equal or exceed 500 hours during each 12 consecutive month rolling period.<sup>59</sup> [Regulation 5.21, section 4.3]
- ii. See Plantwide Standards TAC section.

#### d. Unit Operation (40 CFR 60 Subpart IIII)

- i. The owner or operator of 2007 model year or later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in 40 CFR 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. [40 CFR 60.4205(b)]
- ii. The owner or operator must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. [40 CFR 60.4206]
- iii. The owner or operator of the stationary CI ICE that uses diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise

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<sup>58</sup> The initial notifications for 40 CFR 63 Subpart ZZZZ for AP23a and AP23b was received on September 10, 2014 and for EP DC#1 and EP DC#2, was received on September 14, 2009.

<sup>59</sup> The source submitted an EA Demo on September 14, 2009 for Category 3 TAC Diesel Particulate Matter. The SCREEN3 modeling was limited to 500 hours for the two engines combined resulting in the single process industrial property risk, R<sub>C</sub>, of 0.97 (max EAG<sub>C</sub>, 1.0). The environmental acceptability for this process has been demonstrated.

obtained) prior to October 1, 2010, may be used until depleted.  
[40 CFR 60.4207(b)]

- iv. The owner or operator must do all of the following, except as permitted under 40 CFR 60.4211(g): [40 CFR 60.4211(a)]
  - (1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions. [40 CFR 60.4211(a)(1)]
  - (2) Change only those emission-related settings that are permitted by the manufacturer. [40 CFR 60.4211(a)(2)]
  - (3) Meet the requirements of 40 CFR parts 89, 94, and/or 1068, as they apply to you. [40 CFR 60.4211(a)(3)]
  
- v. The owner or operator must comply by purchasing an engine certified to the emission standards in 40 CFR 60.4205(b), for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR 60.4211(g).<sup>60</sup> [40 CFR 60.4211(c)]
  
- vi. The owner or operator must operate the emergency stationary ICE according to the requirements in 40 CFR 60.4211(f)(1) through (3) as listed below. In order for the engine to be considered an emergency stationary ICE under 40 CFR 60 Subpart IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 60.4211(f)(1) through (3), is prohibited. If the owner or operator does not operate the engine according to the requirements in 40 CFR 60.4211(f)(1) through (3), the engine will not be considered an emergency engine under 40 CFR 63 Subpart ZZZZ and must meet all requirements for non-emergency engines. [40 CFR 60.4211(f)]
  - (1) There is no time limit on the use of emergency stationary ICE in emergency situations. [40 CFR 60.4211(f)(1)]
  - (2) The owner or operator may operate the emergency stationary ICE for any combination of the purposes specified in 40 CFR 60.4211(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 60.4211(f)(2).  
[40 CFR 60.4211(f)(2)]
    - (a) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the

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<sup>60</sup> The certificates of conformities for AP23a and AP23b were received on September 10, 2014 and for EP DC#1, EP DC#2, and EP IWT were received on December 1, 2015.

manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the District for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [40 CFR 60.4211(f)(2)(i)]

- (b) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [40 CFR 60.4211(f)(2)(ii)]
  - (c) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [40 CFR 60.4211(f)(2)(iii)]
- (3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR 60.4211(f)(2). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4211(f)(3)]
- (a) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [40 CFR 60.4211(f)(3)(i)]
  - (b) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
  - (c) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

- (d) The dispatch follows reliability follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
  - (e) The power is provided only to the facility itself or to support the local transmission and distribution system.
  - (f) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.
- vii. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows: [40 CFR 60.4211(g)]
- (1) An owner or operator of a stationary CI internal combustion engine greater than 500 HP must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards. [40 CFR 60.4211(g)(3)]

## **S2. Monitoring and Record Keeping**

[Regulation 2.16, sections 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

### **a. HAP**

- i. There are no HAP monitoring or record keeping requirements for this equipment.

**b. NO<sub>x</sub>**

- i. See Plantwide Monitoring and Record Keeping NO<sub>x</sub> section.

**c. TAC**

- i. For Emission Points EP DC#1 and EP DC#2 the owner or operator shall monitor and record the monthly and 12-month rolling total hours of operation.
- ii. See Plantwide Monitoring and Record Keeping TAC section.

**d. Unit Operation (40 CFR 60 Subpart IIII)**

- i. The owner or operator must install a non-resettable hour meter prior to startup of the engine. [40 CFR 60.4209(a)]
- ii. The owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]

**S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition 14:

**a. HAP**

- i. There are no HAP reporting requirements for this equipment.

**b. NO<sub>x</sub>**

- i. See Plantwide Reporting NO<sub>x</sub> section.

**c. TAC**

- i. For Emission Points EP DC#1 and EP DC#2 the owner or operator shall report the 12-month rolling total of the hours of operation for each month in the reporting period.
- ii. See Plantwide Reporting TAC section.

**d. Unit Operation (40 CFR 60 Subpart IIII)**

i. If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §60.4211(f)(2)(ii) and (iii) or that operates for the purposes specified in §60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (d)(1) through (3) of this section. [40 CFR 60.4214(d)]

(1) The report must contain the following information:

[40 CFR 60.4214(d)(1)]

(a) Company name and address where the engine is located.

[40 CFR 60.4214(d)(1)(i)]

(b) Date of the report and beginning and ending dates of the reporting period. [40 CFR 60.4214(d)(1)(ii)]

(c) Engine site rating and model year.

[40 CFR 60.4214(d)(1)(iii)]

(d) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

[40 CFR 60.4214(d)(1)(iv)]

(e) Hours operated for the purposes specified in §60.4211(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in § 60.4211(f)(2)(ii) and (iii). [40 CFR 60.4214(d)(1)(v)]

(f) Number of hours the engine is contractually obligated to be available for the purposes specified in §60.4211(f)(2)(ii) and (iii). [40 CFR 60.4214(d)(1)(vi)]

(g) Hours spent for operation for the purposes specified in §60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine. [40 CFR 60.4214(d)(1)(vii)]

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. [40 CFR 60.4214(d)(2)]

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form specific to this subpart is not available in CEDRI at

the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §60.4.  
[40 CFR 60.4214 (d)(3)]

**Emission Unit U310: Nylon Rack Fluidized Bed Coating (AP3)**

**Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                                                                   |                            |
|------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                                                                      | <b>Applicable Sections</b> |
| 7.08                                     | Standards of Performance for New Process Operations                                               | 1 through 3                |
| 7.09                                     | Standards of Performance for New Process Gas Streams                                              | 1 through 5                |
| 7.59                                     | Standard of Performance for New Miscellaneous Metal Parts and Products Surface Coating Operations | 1 through 6                |
| 40 CFR 63 Subpart A                      | General Provisions                                                                                | All                        |
| 40 CFR 63 Subpart NNNN                   | National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances     | 63.4080 through 63.4181    |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                         |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                            | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                             | 1, 2                       |
| 5.01                                                        | General Provisions                                                                      | 1 through 2                |
| 5.02                                                        | Adoption of National Emission Standards for Hazardous Air Pollutants                    | 1 and 4.87                 |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant  | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                  | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                    | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                         |                            |

**Equipment** <sup>61</sup>

| <b>Emission Point</b> | <b>Description</b>                                             | <b>Install Date</b> | <b>Applicable Regulations</b>                  | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|----------------------------------------------------------------|---------------------|------------------------------------------------|-------------------|-------------------|
| AP3-310               | Nylon Rack Coater Maxon Ovenpak II Preheat Oven 4.5 MMBtu/hr   | unk                 | STAR, 7.09                                     | N/A               | S-AP3Np           |
| AP3-310a              | Nylon Rack Coater 353 lb/hr KMI Fluidized Bed                  | unk                 | STAR, 7.08, 7.59<br>40 CFR 63,<br>Subpart NNNN | N/A               | N/A               |
| AP3-310b              | Nylon Rack Coater Maxon Ovenpak II Post-heat Oven 1.5 MMBtu/hr | unk                 | STAR, 7.09, 7.59                               | N/A               | S-AP3N            |

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<sup>61</sup> This equipment was previously permitted on construction permit 33667-11-C.

## U310 Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. CO

- i. The owner or operator of a facility shall not emit carbon monoxide gases from a process (AP3-310 and AP3-310b) unless they are burned at 1,300° F for 0.5 seconds or greater in a direct flame afterburner or equivalent device equipped with an indicating pyrometer that is positioned in the working area at the operator's eye level. [Regulation 7.09, section 5.1]

#### b. HAP

- i. See Appendix B.

#### c. NO<sub>x</sub>

- i. The owner or operator shall not cause to be discharged into the atmosphere from any affected facility (AP3-310a) or from any air pollution control equipment installed on any affected facility any NO<sub>x</sub> fumes in excess of 300 ppm by volume expressed as NO<sub>2</sub>. [Regulation 7.08, section 4]
- ii. See Plantwide Standards NO<sub>x</sub> section.

#### d. Opacity

- i. The owner or operator shall not cause to be discharged into the atmosphere from any affected facility (the fluidized bed (AP3-310a)) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is equal to or greater than 20% opacity. [Regulation 7.08, section 3.1.1]

#### e. PM

- i. The owner and operator shall not cause to be discharged into the atmosphere from any affected facility (the fluidized bed (AP3-310a)) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is in excess of 2.34 lbs/hr based on actual operating hours in a calendar day.<sup>62</sup> [Regulation 7.08, section 3.1.2]

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<sup>62</sup> A one-time PM compliance demonstration for this equipment was performed on September 23, 2011 and the lb/hr standard should be met uncontrolled.

**f. SO<sub>2</sub>**

- i. The owner or operator shall not allow the affected facility (AP3-310 and AP3-310b) emissions of the pollutant SO<sub>2</sub> to equal or exceed 40 tons during any twelve consecutive month period. [Regulation 7.09, section 4]

OR

- ii. The owner or operator shall not cause or allow an affected facility the release of a process gas stream containing sulfur dioxide with a concentration greater than 28.63 grains per 100 dscf at 0% excess oxygen. [Regulation 7.09, section 4]

**g. TAC**

- i. See Plantwide Standards TAC section.

**h. VOC**

- i. The owner or operator shall not allow or cause VOC emissions, including all coatings, additives, catalysts, solvents, thinners, and cleaners from equipment subject to Regulation 7.59 plantwide to exceed 5 tons during any 12-consecutive month period unless compliant coatings are used.<sup>63</sup> [Regulation 7.59, section 5.2]

OR

- ii. The owner or operator shall not allow or cause the emissions of VOC from any affected facility resulting from the coating of metallic surfaces in excess of the applicable emission rate as follows: [Regulation 7.59, section 3.1]

| Coating                      | VOC maximum |            |
|------------------------------|-------------|------------|
|                              | lb/gal      | kg/l       |
| Clear coatings               | 4.3         | 0.52       |
| Air-dried coatings           | 3.5         | 0.52       |
| Extreme performance coatings | 3.5         | 0.42       |
| All other coatings           | 3.0         | 0.423<br>6 |

- iii. See Plantwide Standards VOC section.

<sup>63</sup> This 5 ton/year limit to avoid the standards in Regulation 7.59, section 3.1 will be allowed if any of their coatings can exceed the standards. All emission points subject to Regulation 7.59 5 ton/year plantwide limit are: U01 EP 100B-1, U01 EP 100D, U30 EP 213, U30 EP 214,U30 EP 214B, U310 AP3-100a, U310 AP3-310b, U530 EP-4A, U530 EP-4B, U530 EP-6A, U530 EP-6B, U530 EP-7A, and U530 EP-7B.

**S2. Monitoring and Record Keeping**

[Regulation 2.16, sections 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

**a. CO**

- i. There are no monitoring or record keeping requirements for this equipment.<sup>64</sup>

**b. HAP**

- i. See Appendix B.

**c. NO<sub>x</sub>**

- i. There are no monitoring or record keeping requirements for this equipment related to Regulation 7.08.<sup>65</sup>
- ii. See Plantwide Monitoring and Record Keeping NO<sub>x</sub> section.

**d. Opacity**

- i. There are no monitoring or record keeping requirements for this equipment.<sup>66</sup>

**e. PM**

- i. There are no monitoring or record keeping requirements for this equipment.

**f. SO<sub>2</sub>**

- i. There are no monitoring or record keeping requirements for SO<sub>2</sub> compliance for meeting the 40 tons during any twelve consecutive month period.<sup>67</sup>

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<sup>64</sup> The CO emissions from the process are created by the combustion of natural gas to generate heat. The nominal flame temperature of greater than 2,000° F, exceeds the 1,300° F temperature requirement of 7.09, section 5.1, therefore the District has determined that this will be equivalent to a direct flame afterburner.

<sup>65</sup> A one-time NO<sub>x</sub> compliance demonstration using AP-42 emission factors and combusting natural gas was performed, and the emission standard should be met uncontrolled..

<sup>66</sup> The District has determined that no periodic visible emissions surveys are required for this emission unit.

<sup>67</sup> A one-time SO<sub>2</sub> compliance demonstration using AP-42 emission factors and combusting natural gas was performed, and the emission standard should be met uncontrolled.

**g. TAC**

- i. See Plantwide Monitoring and Record Keeping TAC section.

**h. VOC**

- i. An owner or operator of an affected facility subject to this regulation shall maintain records that include, but not be limited to, the following:<sup>68</sup>  
[Regulation 7.59, section 6.1]
  - (1) The regulation and section number applicable to the affected facility for which the records are being maintained.
  - (2) The application method and substrate type (metal, plastic, etc.).
  - (3) The amount and type of coatings (including catalyst and reducer for multi-component coatings) and solvent (including exempt compounds) used at each point of application during the averaging period. The District may specifically authorize the usage record to reflect a period longer than the compliance averaging period, with the usage prorated for each compliance averaging period by a method approved by the District. In this case, the usage record period shall not exceed 1 calendar month.
  - (4) The VOC content as applied in each coating and solvent.
  - (5) The date, or usage record period, for each application of coating and solvent.
  - (6) The amount of surface preparation, clean-up, wash-up of solvent (including exempt compounds) used and the VOC content of each material used during the averaging period. The District may specifically authorize the usage record to reflect a period longer than the compliance averaging period, with the usage prorated for each compliance averaging period by a method approved by the District. In this case, the usage record period shall not exceed 1 calendar month.
  - (7) Oven temperature, monthly, where applicable.
- ii. The VOC content shall be calculated using a percent solids basis (excluding water and exempt solvents) for coatings using EPA Method 24.  
[Regulation 7.59, section 6.2]

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<sup>68</sup> The regulation applicable will be Regulation 7.59, application method will be electrostatic application of powder paint, and the substrate type will be metal. The owner or operator shall be allowed to maintain a one-time record of the information and to notify the District if the company decides to make any changes to this information in order to demonstrate compliance with the daily record keeping requirements.

- iii. The owner or operator shall, monthly, record the total amount used in gallons of each coating, solvent, cleaner, etc. and calculate the amount of VOC containing material used during the 12 consecutive month period.
- iv. The owner or operator shall be allowed to maintain a one-time record of the coating material method-of-application and VOC content and to notify the District if the company decides to make any changes to this information in order to demonstrate compliance with the daily record keeping requirements.
- v. The owner or operator shall, monthly, calculate the monthly and 12 consecutive month plantwide VOC emissions subject to Regulation 7.59.
- vi. See Plantwide Monitoring and Record Keeping VOC section.

**S3. Reporting**

[Regulation 2.16, section 4.1.9.]

The owner or operator shall report the following information, as required by General Condition 14:

**a. CO**

- i. There are no compliance reporting requirements for this equipment.

**b. HAP**

- i. See Appendix B.

**c. NO<sub>x</sub>**

- i. There are no compliance reporting requirements for this equipment related to Regulation 7.08.
- ii. See Plantwide Reporting NO<sub>x</sub> section.

**d. Opacity**

- i. There are no compliance reporting requirements for this equipment.

**e. PM**

- i. There are no compliance reporting requirements for this equipment.

**f. SO<sub>2</sub>**

- i. There are no compliance reporting requirements for this equipment for meeting the 40 tons during any twelve consecutive month period limit.

**g. TAC**

- i. See Plantwide Reporting TAC section.

**h. VOC**

- i. If compliant coatings aren't used:
  - (1) Identification of all periods of exceedances of the VOC limit including the quantity of excess emissions.
  - (2) The monthly and 12-consecutive-month VOC emissions.
  - (3) Reason for excess emissions.
  - (4) Description of corrective action taken to prevent future exceedances.
  - (5) If the 5 tons per 12-consecutive-month period plantwide VOC limit is exceeded, the VOC lb/gal as applied.
- ii. See Plantwide Reporting VOC section.

**S4. Testing**

[Regulation 2.16, section 4.3.1]

**a. General Requirements**

These conditions apply for all testing unless superseded by requirements listed in the individual emission units.

- i. Equipment of similar design may be represented by a common performance test contingent upon review and approval of the testing protocol by the District.
- ii. The owner or operator shall perform a capture efficiency test using EPA guidelines. In lieu of performing a capture efficiency test, the owner or operator may submit a reasonable estimate of capture efficiency with thorough justification in the written test plan (stack test protocol), subject to approval by the District.
- iii. Before conducting a performance test, the owner or operator shall submit a written performance test plan (stack test protocol). The plan shall include the EPA test methods that will be used for testing, the process be monitored during the performance test. The test plans shall be furnished to the District at least 30 calendar days prior to the actual date of the performance test. The Protocol Checklist for a Performance Test is attached to this permit as Appendix E. This checklist provides information that must be provided in the protocol.

- iv. The owner or operator shall provide the District at least 10 working days prior notice of any performance test to afford the District the opportunity to have an observer present.
- v. The owner or operator shall furnish the District with a written report of the results of the performance test within 60 calendar days following the actual date of completion of the performance test.

**b. PM**

- i. Before December 31, 2020, the owner or operator shall perform an EPA Reference Method 5 performance test on the inlet and outlet of the control device or emission point to determine the emission rate and control efficiency. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which results in the greatest emissions may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.
  - (1) Before adopting a control efficiency for any control device greater than that shown in the Calculation Methodology attachment to this permit, the owner or operator shall perform an EPA Reference Method 5 performance test on the inlet and outlet of the control device or emission point to determine the emission rate and control efficiency.

**Emission Unit U311: Adhesive for End Caps on Dishwasher Racks (AP3)****Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                                                               |                            |
|------------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                                                                  | <b>Applicable Sections</b> |
| 7.25                                     | Standards of Performance for New Source Using Volatile Organic Compounds                      | 1 through 4                |
| 40 CFR 63 Subpart A                      | General Provisions                                                                            | All                        |
| 40 CFR 63 Subpart NNNN                   | National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances | 63.4080 through 63.4181    |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                         |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                            | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                             | 1, 2                       |
| 5.01                                                        | General Provisions                                                                      | 1 through 2                |
| 5.02                                                        | Adoption of National Emission Standards for Hazardous Air Pollutants                    | 1 and 4.87                 |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant  | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                  | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                    | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                         |                            |

**Equipment**

| <b>Emission Point</b> | <b>Description</b>                  | <b>Install Date</b> | <b>Applicable Regulations</b>            | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|-------------------------------------|---------------------|------------------------------------------|-------------------|-------------------|
| AP3-311               | Rack End Cap Adhesive <sup>69</sup> | unk                 | STAR, 7.25<br>40 CFR 63,<br>Subpart NNNN | N/A               | N/A               |

<sup>69</sup> This process was previously permitted on construction permit 34823-12-C.

## U311 Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. HAP

- i. See Appendix B.

#### b. TAC

- i. See Plantwide Standards TAC section.

#### c. VOC

- i. The owner or operator shall not allow or cause the VOC emissions from equipment subject to Regulation 7.25, for emissions that do not have a BACT limit, to equal or exceed five tons, plantwide, during any consecutive 12-month period.<sup>70</sup> [Regulation 7.25, section 5.1]
- ii. See Plantwide Standards VOC section.

### S2. Monitoring and Record Keeping

[Regulation 2.16, sections 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

#### a. HAP

- i. See Appendix B.

#### b. TAC

- i. See Plantwide Monitoring and Record Keeping TAC section.

#### c. VOC

- i. The owner or operator shall, monthly, calculate and record the monthly and 12 consecutive month VOC emissions in order to demonstrate compliance with the 5 ton per 12-consecutive-month period limit for all equipment subject to Regulation 7.25 and do not have a BACT limit.
- ii. See Plantwide Monitoring and Record Keeping VOC section.

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<sup>70</sup> Equipment subject to the plantwide 5 ton per year VOC emission limit in Regulation 7.25 are U311 AP3-311; U500 EP-500(a & b); U149 touch-up painting; U150 touch-up painting; U530 EP-IA8; and Insignificant Activities that are noted in the Insignificant Activity Table as *Regulation 7.25 non-BACT process IA02*.

**S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition 14:

**a. HAP**

- i. See Appendix B.

**b. TAC**

- i. See Plantwide Reporting TAC section.

**c. VOC**

- i. For the 5 tons per 12-consecutive-month period VOC limit:
  - (1) Identification of all periods of exceedances of the VOC limit including the quantity of excess emissions.
  - (2) Reason for excess emissions.
  - (3) Description of corrective action taken to prevent future exceedances.
- ii. See Plantwide Reporting VOC section.

**Emission Unit U500: Touch-Up Paint, Adhesives and Lubricating the Spine Fin  
Evaporator Bottom Mount Freezer Refrigerator Line (AP5)**

**Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                                                               |                            |
|------------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                                                                  | <b>Applicable Sections</b> |
| 7.25                                     | Standards of Performance for New Source Using Volatile Organic Compounds                      | 1 through 4                |
| 40 CFR 63 Subpart A                      | General Provisions                                                                            | All                        |
| 40 CFR 63 Subpart NNNN                   | National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances | 63.4080 through 63.4181    |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                         |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                            | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                             | 1, 2                       |
| 5.01                                                        | General Provisions                                                                      | 1 through 2                |
| 5.02                                                        | Adoption of National Emission Standards for Hazardous Air Pollutants                    | 1 and 4.87                 |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant  | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                  | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                    | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                         |                            |

**Equipment**

| <b>Emission Point</b> | <b>Description</b>                   | <b>Install Date</b> | <b>Applicable Regulations</b>            | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|--------------------------------------|---------------------|------------------------------------------|-------------------|-------------------|
| EP-500a               | Touch-Up Paint                       | unk                 | STAR, 7.25,<br>40 CFR 63<br>Subpart NNNN | N/A               | N/A               |
| EP-500b               | Adhesives                            | unk                 |                                          | N/A               | N/A               |
| EP-500c               | Lubricating the Spine Fin Evaporator | unk                 |                                          | N/A               | N/A               |

## U500 Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. HAP

- i. See Appendix B.

#### b. TAC

- i. See Plantwide Standards TAC section.

#### c. VOC

- i. For emission point EP-500c:

- (1) The owner or operator shall not allow or cause the VOC emissions from the use of lubricant to exceed 26.9 tons during any consecutive 12-month period.<sup>71</sup>  
[Regulation 7.25, section 3]  
[Construction Permit 33373-11-C(R1)]
- (2) The owner or operator shall contain the lubricant within closed reservoirs to reduce evaporation loss.<sup>71</sup>  
[Regulation 7.25, section 3], [BACT]  
[Construction Permit 33373-11-C(R1)]
- (3) The amount of lubricant shall be limited by concentrating the spray pattern directly at the mandrel and maximizing the number of bends made per spray.<sup>71</sup>  
[Regulation 7.25, section 3], [BACT]  
[Construction Permit 33373-11-C(R1)]
- (4) At no time shall the per unit usage of lubricant exceed 1.05 oz per evaporator.<sup>71, 72</sup> [Regulation 7.25, section 3], [BACT]  
[Construction Permit 33373-11-C(R1)]

- ii. For emission points EP-500a and EP-500b: The owner or operator shall not allow or cause the VOC emissions from equipment subject to Regulation 7.25, for emissions that do not have a BACT limit, to not equal or exceed

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<sup>71</sup> The VOC limit of 26.9 tons per year is based upon a BACT for Regulation 7.25. The company originally submitted the BACT on August 31, 2011 and the District requested clarification on several issues in the BACT. The company then submitted a response to the District's concerns on September 7, 2011 and the District approved the revised BACT on September 8, 2011. The good management practices are included in the BACT.

<sup>72</sup> The BACT states that the Cindol usage rate is 0.6 ounces per unit or less. This is an annual average based on similar equipment operated at another GE Appliances' manufacturing facility. The source determined a site-specific amount of lubricant used per unit emission limit is 1.05 oz per evaporator. This is based on maximum equipment capacity and a 5% addition for wear.

five (5) tons, plantwide, during any consecutive 12-month period.<sup>73</sup>  
[Regulation 7.25, section 5.1]

- iii. See Plantwide Standards VOC section.

## **S2. Monitoring and Record Keeping**

[Regulation 2.16, sections 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

### **a. HAP**

- i. See Appendix B.

### **b. TAC**

- i. See Plantwide Monitoring and Record Keeping TAC section.

### **c. VOC**

- i. The owner or operator shall, monthly, calculate and record the monthly and 12 consecutive month VOC emissions in order to demonstrate compliance with the 26.9 tons per 12-consecutive-month period limit.
- ii. The owner or operator shall, monthly, record the amount of lubricant used and the number of units manufactured. The amount of lubricant used per unit shall then be calculated and recorded to demonstrate the concentration of the spray pattern directly at the mandrel and maximizing the number of bends per spray.
- iii. The owner or operator shall, monthly, calculate and record the monthly and 12 consecutive month VOC emissions in order to demonstrate compliance with the 5 ton per 12-consecutive-month period limit for all equipment subject to Regulation 7.25 and do not have a BACT limit.
- iv. See Plantwide Monitoring and Record Keeping VOC section.

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<sup>73</sup> Equipment subject to the plantwide 5 ton per year VOC emission limit in Regulation 7.25 are U311 AP3-311; U500 EP-500(a & b); U149 touch-up painting; U150 touch-up painting; U530 EP-IA8; and Insignificant Activities that are noted in the Insignificant Activity Table as *Regulation 7.25 non-BACT process* IA02.

**S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition 14:

**a. HAP**

- i. See Appendix B.

**b. TAC**

- i. See Plantwide Reporting TAC section.

**c. VOC**

- i. For 26.9 tons per 12-consecutive-month period BACT limit:
  - (1) Identification of all periods of exceedances of the VOC limit including the quantity of excess emissions.
  - (2) Reason for excess emissions.
  - (3) Description of corrective action taken to prevent future exceedances.
- ii. The owner or operator shall identify all periods of exceeding the concentration of the spray pattern directly at the mandrel and maximizing the number of bends per spray based on the usage per evaporator. A negative declaration shall be included if there are no instances of exceedance.
- iii. For 5 tons per 12 consecutive month period Non-BACT limit:
  - (1) Identification of all periods of exceedances of the VOC limit including the quantity of excess emissions.
  - (2) Reason for excess emissions.
  - (3) Description of corrective action taken to prevent future exceedances.
- iv. See Plantwide Reporting VOC section.

**Emission Unit U510: Bottom Mount Freezer Refrigerator Line (AP5)****Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                                          |                            |
|------------------------------------------|--------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                                             | <b>Applicable Sections</b> |
| 7.25                                     | Standards of Performance for New Source Using Volatile Organic Compounds | 1 through 4                |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                         |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                            | <b>Applicable Sections</b> |
| 2.12                                                        | Emissions Trading (Including Banking and Bubble Rules)                                  | 1 through 6                |
| 5.00                                                        | Definitions                                                                             | 1, 2                       |
| 5.01                                                        | General Provisions                                                                      | 1 through 2                |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant  | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                  | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                    | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                         |                            |

**Equipment** <sup>74, 75</sup>

| Emission Point | Description                                                        | Install Date | Applicable Regulations | Control ID | Release ID |
|----------------|--------------------------------------------------------------------|--------------|------------------------|------------|------------|
| EP-510         | Doerfer Insulating Foam Line (IFL-1)                               | unk          | STAR, 7.25             | N/A        | N/A        |
| EP-511         | Bottom Mount Freezer Refrigerator Main Extruder Line (3,000 lb/hr) | unk          | STAR, 2.12, 7.25       | N/A        | S-AP5NX    |
| EP-512         | Bottom Mount Freezer Refrigerator Small Extruder Line (800 lb/hr)  | unk          |                        | N/A        | S-AP5NX    |

<sup>74</sup> The company resubmitted a STAR Environmental Acceptability Demonstration on June 2, 2017 for acrylonitrile (Category 1 TAC), ethyl benzene (Category 4 TAC) and styrene (Category 4 TAC) emissions. It was shown that the emissions exceeded the *de minimis* level for these three TACS. A SCREEN3 model was used to determine the risk uncontrolled. For acrylonitrile the risk was determined to be  $0.55 \times 10^{-6}$ , for ethyl benzene the risk was determined to be  $0.028 \times 10^{-6}$  and for styrene the risk was determined to be  $0.073 \times 10^{-6}$  for industrial property. For non-industrial property, the risk was determined to be  $0.373 \times 10^{-6}$  for acrylonitrile;  $0.019 \times 10^{-6}$  for ethyl benzene; and  $0.049 \times 10^{-6}$  for styrene. These are each below the maximum allowable risk of  $1.0 \times 10^{-6}$  for this project. The STAR Environmental Acceptability for this plant has been demonstrated. The stack height was extended to 80 feet above ground level, or 30 feet above Building 5 roof, and the exhaust blower size was increased to achieve a volumetric flow rate of 14,400 actual cubic feet per minute. The following TACs for the project (insulating refrigerator doors) were *de minimis* uncontrolled: Acetophenone, and cumene from the extruder lines; and polymeric diphenylmethane diisocyanate and MDI from the insulating foam line.

<sup>75</sup> The company submitted a revised STAR Environmental Acceptability Demonstration on May 3, 2018, updating the June 2, 2017 model. They determined that the original model had used a stack diameter of 4 feet rather than the actual diameter of 2 feet. There were minor changes to the risks that are detailed in the Plantwide Requirements section of this permit. At the same time, it was determined that cumene had been left out of the analysis. Cumene emissions are less than *de minimis* on a lb/hr basis, but potential annual emissions exceed the annual *de minimis* limit, so this compound must also be included. The analysis determined that all of the original compounds and cumene are environmentally acceptable, uncontrolled and the plantwide risks also meet the appropriate EA goals.

## U510 Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. TAC

- i. The owner or operator shall not allow cumene emissions to exceed *de minimis* for the Doerfer Insulating Foam Line (EP 510).<sup>76</sup>  
[Regulation 5.21, section 4.3]
- ii. See Plantwide Standards TAC section.

#### b. VOC

- i. For the insulating foam line (EP-510), the owner or operator shall not allow or cause the VOC emissions from this equipment to exceed 32.4 tons during any consecutive 12-month period.<sup>77</sup> [Regulation 7.25, section 3)],  
[Construction Permit 33318-11-C]
- ii. The owner or operator shall follow the equipment manufacturer's recommendations for the maintenance of the critical foam system equipment (EP-510).<sup>77</sup> [Regulation 7.25, section 3], [BACT]  
[Construction Permit 33318-11-C]
- iii. For the extruders (EP-511 and EP-512), the owner or operator shall not allow or cause the VOC emissions from this equipment combined to exceed 3.84 tons during any consecutive 12-month period combined.<sup>78</sup>  
[Regulation 7.25, section 3], [Construction Permit 33671-11-C],  
[Regulation 2.12]
- iv. See Plantwide Standards VOC section.

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<sup>76</sup> As of the issuance of this permit, the *de minimis* level for cumene is 48 lb/12-consecutive month and 0.054 lb/hr. The revised EA Demo submitted by the company in May 2018 shows that potential emissions cannot exceed the hourly rate.

<sup>77</sup> The VOC limit of 32.4 tons per year is based upon a BACT for Regulation 7.25. The company originally submitted the BACT on August 8, 2011 and the District requested clarification on several issues in the BACT. The company then submitted the revised BACT on August 19, 2011 and the District approved the revised BACT on August 22, 2011. The maintenance recommendations for the maintenance of the critical foam system equipment are included in the BACT.

<sup>78</sup> The company requested removal of emissions from the bank on October 14, 2011 to set a VOC limit of 3.84 tons per year for this extrusion equipment. These requested emissions were removed from banking permit 12-02-B.

**S2. Monitoring and Record Keeping**

[Regulation 2.16, sections 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

**a. TAC**

- i. The owner or operator shall monthly calculate and record the monthly and 12-consecutive month cumene emissions for the Doerfer Insulating Foam Line EP, 510.
- ii. See Plantwide Monitoring and Record Keeping TAC section.

**b. VOC**

- i. The owner or operator shall, monthly, calculate and record the monthly and 12 consecutive month VOC emissions in order to demonstrate compliance with the 32.4 tons per 12-consecutive-month period limit for emission point EP-510.
- ii. The owner or operator shall, monthly, calculate and record the monthly and 12 consecutive month VOC emissions in order to demonstrate compliance with the 3.84 tons per 12 consecutive month period limit for emission points EP-511 and EP-512.
- iii. The owner or operator shall keep a record of the amount of VOC material extruded each month.
- iv. The owner or operator shall maintain a copy of the equipment manufacturer's recommendations for the maintenance of the critical foam system equipment that shall include a comprehensive list of all the components to be maintained. Also, records shall be maintained that demonstrate the maintenance is being performed in accordance with the manufacturer's recommendations.<sup>79</sup>
- v. See Plantwide Monitoring and Record Keeping VOC section.

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<sup>79</sup> The source submitted to the District the equipment manufacturer's recommendations for the maintenance of the critical foam system equipment on July 9, 2012.

**S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition 14:

**a. TAC**

- i. The owner or operator shall report the monthly and 12-consecutive monthly cumene emissions for each month in the reporting period for the Doerfer Insulating Foam Line, EP 510.
- ii. See Plantwide Reporting TAC section.

**b. VOC**

- i. For the 32.4 and 3.84 tons per 12-consecutive-month period VOC limits respectively:
  - (1) Identification of all periods of exceedances of the VOC limit including the quantity of excess emissions;
  - (2) Reason for excess emissions; and
  - (3) Description of corrective action taken to prevent future exceedances.
- ii. The owner or operator shall report any missed manufacturer recommended maintenance operations.
- iii. See Plantwide Reporting VOC section.

**Emission Unit U530: AP2 Metallic Powder Paint (TV-14-1012-C)****Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                                                                   |                            |
|------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                                                                      | <b>Applicable Sections</b> |
| 7.08                                     | Standards of Performance for New Process Operations                                               | 1 through 3                |
| 7.25                                     | Standard of Performance for New Sources Using Volatile Organic Compounds                          | 1 through 5                |
| 7.59                                     | Standard of Performance for New Miscellaneous Metal Parts and Products Surface Coating Operations | 1 through 6                |
| 40 CFR 63 Subpart A                      | General Provisions                                                                                | All                        |
| 40 CFR 63 Subpart NNNN                   | National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances     | 63.4080 through 63.4181    |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                                     |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                                        | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                                         | 1, 2                       |
| 5.01                                                        | General Provisions                                                                                  | 1 through 2                |
| 5.02                                                        | Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants | All                        |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant              | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                              | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant             | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                                | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                                     |                            |

**Equipment**

| <b>Emission Point</b> | <b>Description</b>                                                                                                   | <b>Install Date</b> | <b>Applicable Regulations</b>            | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|----------------------------------------------------------------------------------------------------------------------|---------------------|------------------------------------------|-------------------|-------------------|
| EP-2A                 | Infrared dry off Oven<br>KMI Catalytic Custom -<br>2.0 MMBtu/hr                                                      | 2014                | STAR,<br>40 CFR 63,<br>Subpart NNNN      | N/A               | S-530-3           |
| EP-3                  | Electrostatic powder paint booth –<br>basecoat: Gema Equiflow with a<br>process cyclone (efficiency 90%)             | 2014                | STAR, 7.08<br>40 CFR 63,<br>Subpart NNNN | C530-1            | N/A               |
| EP-4A                 | Infrared gel oven for sintering<br>basecoat powder paint                                                             | 2014                | STAR, 7.59<br>40 CFR 63,<br>Subpart NNNN | N/A               | S530-4            |
| EP-4B                 | Basecoat infrared gel oven<br>KMI Catalytic Custom -<br>1.6 MMBtu/hr                                                 | 2014                |                                          | N/A               | S530-4            |
| EP-5                  | Electrostatic powder paint booth –<br>clear coat: Gema Diamond with<br>process cartridge filters (efficiency<br>95%) | 2014                | STAR, 7.08<br>40 CFR 63,<br>Subpart NNNN | C530-2            | N/A               |
| EP-6A                 | Infrared gel oven for sintering<br>clearcoat powder paint                                                            | 2014                | STAR, 7.59<br>40 CFR 63,<br>Subpart NNNN | N/A               | S530-5            |
| EP-6B                 | Clearcoat infrared gel oven<br>KMI Catalytic Custom - 1.6<br>MMBtu/hr                                                | 2014                |                                          | N/A               | S530-5            |
| EP-7A                 | Cure oven for curing powder<br>paints<br>KMI Custom                                                                  | 2014                |                                          | N/A               | S530-6            |
| EP-7B                 | Natural gas-fired cure oven<br>KMI Custom - 4.5 MMBtu/hr                                                             | 2014                |                                          | N/A               | S530-6            |
| EP-IA8                | Stainless Steel Dishwasher Door<br>Wipe<br>(Non BACT)                                                                | 2018                | STAR, 7.25                               | N/A               | N/A               |

**Control Devices**

| <b>Control ID</b> | <b>Description</b>                                                        | <b>Control Efficiency</b> |
|-------------------|---------------------------------------------------------------------------|---------------------------|
| C530-1            | Cartridge Type Dust Collector<br>Gema model DFO3 and Panel Dust Collector | 99.5% <sup>80</sup>       |
| C530-2            | Gema Panel Type Dust Collector                                            | 90%                       |

<sup>80</sup> Combined efficiency of cartridge and panel dust collectors.

## U530 Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. HAP

- i. If organic HAPs are used, comply with Appendix B.<sup>81</sup>

#### b. Opacity

- i. The owner or operator shall not cause to be discharged into the atmosphere from any affected facility (for each powder coating booth (EP-3 and EP-5)) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is equal to or greater than 20% opacity. [Regulation 7.08, section 3.1.1]

#### c. PM

- i. The owner and operator shall not cause to be discharged into the atmosphere from any affected facility (for each powder coating booth (EP-3 and EP-5)) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is in excess of 2.34 lb/hr based on actual operating hours in a calendar day.<sup>82</sup>  
[Regulation 7.08, section 3.1.2]
- ii. 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. [Regulation 1.05, section 5]

#### d. TAC

- i. The owner or operator shall not allow Aluminum emissions to exceed *de minimis* for the base coat powder coating booth EP-3.<sup>83</sup>  
[Regulation 5.21, section 4.3]
- ii. The owner or operator shall operate and maintain the control device (C530-1) at all times the powder coating booth (EP-3) is in operation, including

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<sup>81</sup> The unit equipment does not always use organic HAPs in the process, therefore 40 CFR 63, subpart NNNN will not apply unless organic HAPs are being used.

<sup>82</sup> A one-time PM compliance demonstration for emission point EP-3 was performed on June 24, 2014 and the lb/hr standard should be met controlled. Therefore, controls must be run to meet the PM lb/hr emission limit. A one-time PM compliance demonstration for emission point EP-5 was performed on June 14, 2014 and the lb/hr standard should be met uncontrolled, but can be exceeded if the process collector is bypassed. Therefore, the process collector must be run to meet the PM lb/hr limit.

<sup>83</sup> As of the issuance of this permit, the *de minimis* level for Aluminum is 1 lb/8-hr.

periods of startup, shutdown, and malfunction, in a manner consistent with good air pollution control practice to meet the standards.<sup>84</sup>  
 [Regulation 5.21, section 4.3]

iii. See Plantwide Standards TAC section.

**e. VOC**

i. Gel and Cure Ovens (EP-4A, EP-4B, EP-6A, EP-6B, EP-7A, and EP-7B):

(1) The owner or operator shall not allow or cause VOC emissions, including all coatings, additives, catalysts, solvents, thinners, and cleaners from equipment subject to Regulation 7.59 plantwide to exceed 5 tons during any 12-consecutive-month period unless compliant coatings are used.<sup>85</sup> [Regulation 7.59, section 5.2]

OR

(2) The owner or operator shall not allow or cause the emissions of VOC from any affected facility resulting from the coating of metallic surfaces in excess of the applicable emission rate as follows: [Regulation 7.59, section 3.1]

| Coating                      | VOC maximum |            |
|------------------------------|-------------|------------|
|                              | lb/gal      | kg/l       |
| Clear coatings               | 4.3         | 0.52       |
| Air-dried coatings           | 3.5         | 0.52       |
| Extreme performance coatings | 3.5         | 0.42       |
| All other coatings           | 3.0         | 0.423<br>6 |

ii. The owner or operator shall not allow or cause the emissions of VOC from equipment subject to Regulation 7.25 plantwide for emission points that do not have a BACT limit or a banking limit to exceed 5 tons during any consecutive 12-month period.<sup>86</sup> [Regulation 7.25, section 5.1]

iii. See Plantwide Standards VOC section.

<sup>84</sup> Aluminum emissions for the base coat powder coating booth must be controlled to meet the *de minimis* limit.

<sup>85</sup> This 5 tpy limit to avoid the standards in Regulation 7.59, section 3.1 will be allowed if any of their coatings can exceed the standards. All emission points subject to Regulation 7.59 5 ton per year plantwide limit are: U01 EP 100B-1, U01 EP 100D, U30 EP 213, U30 EP 214, U30 EP 214B, U310 AP3-210a, U310 AP3-310b, U530 EP-4A, U530 EP-4B, U530 EP-6A, U530 EP-6B, U530 EP-7A, and U530 EP-7B.

<sup>86</sup> Equipment subject to the plantwide 5 ton per year VOC emission limit in Regulation 7.25 are U311 AP3-311; U500 EP-500(a & b); U149 touch-up painting; U150 touch-up painting; U530 EP-IA8; and Insignificant Activities that are noted in the Insignificant Activity Table as *Regulation 7.25 non-BACT process IA02*.

**S2. Monitoring and Record Keeping**

[Regulation 2.16, sections 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

**a. HAP**

- i. If organic HAPs are used, comply with Appendix B.

**b. Opacity**

- i. For emission point EP-3:
  - (1) The owner or operator shall, monthly, perform a visual inspection of the powder coating booths, cyclone unit, and filters to check the structural and mechanical integrity of the system for signs of damage, air leakage, corrosion, or other equipment defects and repair as needed.<sup>87</sup>
  - (2) The owner or operator shall maintain records, monthly, of the results of all visual inspections. Records of the results of any visual inspection shall include the date of the survey, the name of the person conducting the survey, whether or not damage was observed, and what, if any, corrective action was performed.

**c. PM**

- i. The owner or operator shall, monthly, perform and keep records of a visual inspection of the structural and mechanical integrity of the control device (C530-1) for signs of damage, air leakage, corrosion, etc. and repair as needed.
- ii. If there is any-time that the control device (C530-1) is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:
  - (1) Date;
  - (2) Start time and stop time;
  - (3) Identification of the control device and process equipment;
  - (4) PM emissions for each hour during the bypass in lb/hr;
  - (5) Summary of the cause or reason for each bypass event;
  - (6) Corrective action taken to minimize the extent or duration of the bypass event; and

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<sup>87</sup> The visual inspection of the mechanical and structural integrity of the powder coating booths, cyclone unit, and filters should ensure the opacity standard is not exceeded.

- (7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.
  - (8) If this event is due to an upset condition, you must report as specified in District regulation 1.07, section 4.
- iii. The owner or operator shall, monthly, perform and keep records of a visual inspection of the structural and mechanical integrity of the process collector for EP-5 for signs of damage, air leakage, corrosion, etc. and repair as needed.
  - iv. If there is any-time that the process collector for EP-5 is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:
    - (1) Date;
    - (2) Start time and stop time;
    - (3) Identification of the process collector and process equipment;
    - (4) PM emissions for each hour during the bypass in lb/hr;
    - (5) Summary of the cause or reason for each bypass event;
    - (6) Corrective action taken to minimize the extent or duration of the bypass event; and
    - (7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.
    - (8) If this event is due to an upset condition, you must report as specified in District regulation 1.07, section 4.

**d. TAC**

- i. The owner or operator shall document the hours of operation daily of the base coat powder coating booth EP-3.
- ii. The owner or operator shall maintain daily records that identify all periods of bypassing the control device (C530-1) while base coat powder coating booth EP-3 is in operation or a declaration entered into the records that the control device operated at all times the powder coating booths were in operation for a given day. The record shall include the following:
  - (1) The date, duration (including start and stop time) of each bypass event.
  - (2) Identification of the control device and process equipment in operation.
  - (3) The total lb/8-hr emission rate for aluminum beginning eight hours before the bypass event for every hour until eight hours following the bypass event for each bypass event.

- (4) Summary information on the cause or reason for each control device bypass event.
- (5) Corrective action taken to minimize the extent and duration of each bypass event.
- (6) Measures implemented to prevent reoccurrence of the situation that resulted in bypassing the control device.

iii. See Plantwide Monitoring and Record Keeping TAC section.

**e. VOC**

i. Gel and Cure Ovens (EP-2A, EP-4A, EP-4B, EP-6A, EP-6B, EP-7A, and EP-7B):

- (1) An owner or operator of an affected facility subject to this regulation shall maintain records that include, but not be limited to, the following: (Regulation 7.59, section 6.1)
  - (a) The regulation and section number applicable to the affected facility for which the records are being maintained.
  - (b) The application method and substrate type (metal, plastic, etc.).
  - (c) The amount and type of coatings (including catalyst and reducer for multi-component coatings) and solvent (including exempt compounds) used at each point of application during the averaging period. The District may specifically authorize the usage record to reflect a period longer than the compliance averaging period, with the usage prorated for each compliance averaging period by a method approved by the District. In this case, the usage record period shall not exceed 1 calendar month.
  - (d) The VOC content as applied in each coating and solvent.
  - (e) The date, or usage record period, for each application of coating and solvent.
  - (f) The amount of surface preparation, clean-up, wash-up of solvent (including exempt compounds) used and the VOC content of each material used during the averaging period. The District may specifically authorize the usage record to reflect a period longer than the compliance averaging period, with the usage prorated for each compliance averaging period by a method approved by the District. In this case, the usage record period shall not exceed 1 calendar month.
  - (g) Oven temperature, monthly, where applicable.

- (2) The VOC content shall be calculated using a percent solids basis (excluding water and exempt solvents) for coatings using EPA Method 24. (Regulation 7.59, section 6.2)
  - (3) The owner or operator shall, monthly, record the total amount used in gallons of each coating, solvent, cleaner, etc. and calculate the amount of VOC containing material used during the 12 consecutive month period.
  - (4) The owner or operator shall be allowed to maintain a one-time record of the coating material method-of-application and VOC content and to notify the District if the company decides to make any changes to this information in order to demonstrate compliance with the daily record keeping requirements.
  - (5) The owner or operator shall, monthly, calculate the monthly and 12 consecutive month VOC emissions from the infrared cure oven.
- ii. The owner or operator shall, monthly, calculate and record the monthly and 12 consecutive month plantwide VOC emissions subject to Regulation 7.59.
  - iii. The owner or operator shall, monthly, calculate and record the monthly and 12 consecutive month VOC emissions in order to demonstrate compliance with the 5 ton per 12-consecutive-month period limit for all equipment subject to Regulation 7.25 and do not have a BACT limit.
  - iv. See Plantwide Monitoring and Record Keeping VOC section.

### **S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition 14:

#### **a. HAP**

- i. If organic HAPs are used, comply with Appendix B.

#### **b. Opacity**

- i. Any deviation from the requirement to perform and record the results of each monthly visual inspection.
- ii. The date of each visual inspection where damage was observed and the corrective action was taken.

**c. PM**

- i. The owner or operator shall report the following information regarding PM By-Pass Activity in the semi-annual reports.
  - (1) Number of times the PM vent stream by-passes the control device or process collector (EP-5) and is vented to the atmosphere.
  - (2) Duration of each by-pass to the atmosphere.
  - (3) Calculated quantity in lb/hr of PM emitted for each by-pass.
- ii. The owner or operator shall report any deviation from the requirement of performing a monthly visual inspection of the structural and mechanical integrity of the control device (C530-1) and process collector for EP-5.

**d. TAC**

- i. The owner or operator shall identify all periods of exceeding the *de minimis* aluminum emission standard for the base coat powder coating booth EP-3 during a reporting period. The report shall include the following:
  - (1) The date and duration (including the start and stop time) during which a deviation occurred.
  - (2) The quantity of excess aluminum emissions in lb/8-hr.
  - (3) Summary information on the cause or reason for excess emissions.
  - (4) Corrective action taken to minimize the extent and duration of each excess emissions event.
  - (5) Measures implemented to prevent reoccurrence of the situation that resulted in excess aluminum emissions.
- ii. See Plantwide Reporting TAC section.

**e. VOC**

- i. Gel and Cure Ovens (EP-2A, EP-4A, EP-4B, EP-6A, EP-6B, EP-7A, and EP-7B):
  - (1) If compliant coatings aren't used:
    - (a) Identification of all periods of exceedances of the VOC limit including the quantity of excess emissions.
    - (b) The monthly and 12 consecutive month VOC emissions.
    - (c) Reason for excess emissions.
    - (d) Description of corrective action taken to prevent future exceedances.

- (e) If the 5 tons per 12 consecutive month period VOC limit is exceeded, the VOC lb/gal as applied.
- ii. For 5 tons per 12-consecutive-month period Non-BACT limit:
  - (1) Identification of all periods of exceedances of the VOC limit including the quantity of excess emissions.
  - (2) Reason for excess emissions.
  - (3) Description of corrective action taken to prevent future exceedances.
- iii. See Plantwide Reporting VOC section.

**Emission Unit U540: AP1 Dryer Drawing Compound Application** <sup>88</sup>**Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                                          |                            |
|------------------------------------------|--------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                                             | <b>Applicable Sections</b> |
| 7.25                                     | Standard of Performance for New Sources Using Volatile Organic Compounds | 1 through 5                |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b> <sup>89</sup>  |                                                                                         |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                            | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                             | 1, 2                       |
| 5.01                                                        | General Provisions                                                                      | 1 through 2                |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant  | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                  | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                    | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                         |                            |

**Equipment**

| <b>Emission Point</b> | <b>Description</b>           | <b>Install Date</b> | <b>Applicable Regulations</b> | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|------------------------------|---------------------|-------------------------------|-------------------|-------------------|
| 540-1                 | Drawing compound applicators | 2019                | 7.25                          | N/A               | N/A               |
| 540- 2                | Drawing compound applicators | 2019                | 7.25                          | N/A               | N/A               |

<sup>88</sup> New equipment added as part of construction permit C-0870-1023-19-V, dated June 11, 2019. Actual drawing compound usage was determined in the 270-day period following issuance of this permit.

<sup>89</sup> These District-only regulations relate the APCD's STAR program. The drawing compound proposed for use with this application contains no TACs and there are no STAR requirements currently applicable. These regulations and TAC requirements are included for completeness should future changes to the drawing compound introduce TACs to the process exhaust stream.

## U540 - Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. TAC <sup>90</sup>

- i. See Plantwide Standards TAC section

#### b. VOC

- i. The owner or operator shall contain the drawing compound within closed reservoirs to reduce evaporation loss. [Regulation 7.25, section 3] (BACT) <sup>91</sup>
- ii. The VOC emission rate shall not exceed 1.78 lb/hr per emission point, based on actual operating hours in a calendar day. [Regulation 7.25, section 3] (BACT) <sup>91,92</sup>
- iii. The VOC content (material density multiplied by the w/w% VOC) as determined by the manufacturer's SDS or other similar data shall not exceed 7.20 pounds per gallon, as used in the BACT analysis unless a revised analysis is submitted to and approved by APCD prior to use. <sup>93</sup> [Regulation 7.25, section 3] (BACT)
- iv. The drum production rate shall not exceed 144 units per hour for each emission point, based on actual operating hours in a calendar day. <sup>94</sup> [Regulation 7.25, section 3] (BACT)
- v. See Plantwide Standards VOC section.

<sup>90</sup> These District-only regulations relate the APCD's STAR program. The drawing compound proposed for use with this application contains no TACs and there are no equipment specific STAR requirements currently applicable. These regulations and TAC requirements are included for completeness should future changes to the drawing compound introduce TACs to the process exhaust stream.

<sup>91</sup> GE Appliances submitted a BACT analysis with the construction application, on March 20, 2019. This analysis showed that there is no economically viable add-on control for the VOC emissions from this equipment when applied at the rate specified.

<sup>92</sup> The GE PTE calculations that established this emission rate, were based on a production rate of 144 drums per hour and an **estimated** drawing compound application rate of 0.22 fluid ounces per drum. According to the construction permit, a **site-specific** application rate was to be determined during the 270-day period following commissioning of the equipment. These tests demonstrated that the actual application rate is not a constant, but rather a function of the drum production rate, making the establishment of an application rate standard impractical. However, the data demonstrated that the (application rate per drum) x (drum production rate) = (drawing compound usage per hour) is approximately constant. Setting the BACT limit as the VOC emission rate established in the revised April 18, 2019 BACT analysis is consistent with the drum-production rate and drawing-compound-usage rates set forth in the construction permit.

<sup>93</sup> The revised BACT, received April 18, 2019, subsequent to the construction application stated that the drawing compound density will be no more than 7.20 lb/gal and the VOC content is 100%.

<sup>94</sup> The BACT supplied with the construction application assumed a throughput for the equipment of 139 per hour, equivalent to a cycle time of 26 seconds. Information subsequently supplied stated that the cycle time had been more accurately determined to be 25 seconds. This is equivalent to a throughput of 144 units per hour. This change in cycle time does not materially affect the conclusions of the BACT analysis.

**S2. Monitoring and Record Keeping**

[Regulation 2.16, sections 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

**a. TAC <sup>95</sup>**

- i. See Plantwide Monitoring and Record Keeping TAC section.

**b. VOC**

- i. The owner or operator shall daily record the hours of operation of the forming equipment for purposes of calculating production- and oil usage-rates.
- ii. The owner or operator shall, weekly, maintain records of the number of dryer drums formed and shall calculate the hourly average production rate using the methodology described in Attachment D – Calculation Methodology unless another methodology is approved in writing by the District.
- iii. The owner or operator shall, weekly, record the amount of drawing compound used, and shall calculate and record the average hourly VOC emission rate using the methodology described in Attachment D – Calculation Methodology unless another methodology is approved in writing by the District.
- iv. The owner or operator shall keep on file the SDS for each drawing compound and the date that use was started (and ended, if a new drawing compound is used.) If other literature showing physical properties of the drawing compound is provided by the manufacturer the literature shall also be kept on file. Any new data made available shall be reviewed to demonstrate that the VOC content does not exceed that which was used in the BACT analysis.
- v. See Plantwide Monitoring and Record Keeping VOC section.

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<sup>95</sup> These District-only regulations relate the APCD's STAR program. The drawing compound proposed for use with this application contains no TACs and there are no STAR requirements currently applicable. These regulations and TAC requirements are included for completeness should future changes to the drawing compound introduce TACs to the process exhaust stream.

**S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition 14:

**a. TAC <sup>96</sup>**

- i. See Plantwide Reporting TAC section.

**b. VOC**

- i. The semi-annual report shall include any deviation from specific standards set forth in this permit:

- (1) The drawing compound VOC emission rate in lb/hr. The report shall include the following:

- (a) The date and duration (including the start and stop time) of each lb/hr exceedance;
- (b) The calculated VOC emissions during the period of exceedance;
- (c) Corrective actions to halt the exceedance and to prevent future exceedances;
- (d) Summary information on the cause or reason for the exceedance.

- (2) The VOC content of the drawing compound, as established in the most recently approved BACT analysis.

- (3) The hourly drum production rate. The report shall include the following:

- (a) The date and duration (including the start and stop time) of each production rate exceedance;
- (b) The actual production rate during the period of exceedance;
- (c) Corrective actions to halt the exceedance and to prevent future exceedances;
- (d) Summary information on the cause or reason for the exceedance.

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<sup>96</sup> These District-only regulations relate the APCD's STAR program. The drawing compound proposed for use with this application contains no TACs and there are no STAR requirements currently applicable. These regulations and TAC requirements are included for completeness should future changes to the drawing compound introduce TACs to the process exhaust stream.

- ii. The owner or operator shall submit a revised application and BACT analysis and receive approval for any change in a process or process equipment, including raw materials, before making the change.<sup>97</sup>
- iii. See Plantwide Reporting VOC section.

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<sup>97</sup> Changes that would require a revised analysis include, for example, an increase in the drum throughput, a drawing compound usage rate greater than that used in the original BACT analysis, and increases in the VOC content of the drawing compound to more than what was evaluated in the original BACT analysis.

**Emission Unit: Solvent Metal-Cleaning Equipment**

**Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                               |                            |
|------------------------------------------|---------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                                  | <b>Applicable Sections</b> |
| 6.18                                     | Standards of Performance for Solvent Metal Cleaning Equipment | 1 through 4                |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                         |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                            | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                             | 1, 2                       |
| 5.01                                                        | General Provisions                                                                      | 1 through 2                |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant  | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                  | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                    | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                         |                            |

**Equipment**

| <b>Emission Point</b>                                          | <b>Description</b>                                                            | <b>Install Date</b> | <b>Applicable Regulations</b> | <b>Control ID</b> | <b>Release ID</b> |
|----------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------|-------------------------------|-------------------|-------------------|
| Solvent Metal-Cleaning Equipment with secondary reservoir (IA) | Thirty cold solvent parts cleaners are equipped with secondary reservoirs     | unk                 | STAR, 6.18                    | N/A               | N/A               |
| Solvent Metal-Cleaning Equipment without secondary reservoir   | Twelve cold solvent parts cleaners are not equipped with secondary reservoirs | unk                 |                               | N/A               | N/A               |

## Metal Cleaning Equipment Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. TAC

- i. See Plantwide Standards TAC section.

#### b. VOC

- i. The owner or operator shall install, maintain, and operate the control equipment as follows: [Regulation 6.18, section 4]
  - (1) The cold cleaner shall be equipped with a tightly fitting cover that is free of cracks, holes, or other defects. If the solvent is agitated or heated, then the cover shall be designed so that it can be easily operated with 1 hand. [Regulation 6.18, section 4.1.1]
  - (2) The cold cleaner shall be equipped with a drainage facility that is designed so that the solvent that drains off parts removed from the cleaner will return to the cold cleaner. The drainage facility may be external if the District determines that an internal type cannot fit into the cleaning system. [Regulation 6.18, section 4.1.2]
  - (3) A permanent, conspicuous label summarizing the operating requirements specified in section 4.2 shall be installed on or near the cold cleaner. [Regulation 6.18, section 4.1.3]
  - (4) If used, the solvent spray shall be a fluid stream, not a fine, atomized, or shower type spray, at a pressure that does not cause excessive splashing. Flushing of parts using a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaner. Solvent flow shall be directed downward to avoid turbulence at the air-solvent interface and to prevent solvent from splashing outside of the cold cleaner. [Regulation 6.18, section 4.1.4]
  - (5) Work area fans shall be located and positioned so that they do not blow across the opening of the cold cleaner. [Regulation 6.18, section 4.1.6]
  - (6) If a pump-agitated solvent bath is used, then the agitator shall be operated to produce no more than a rolling motion of solvent with no observable splashing of the solvent against the tank walls or the parts being cleaned. An air-agitated solvent bath shall not be used. [Regulation 6.18, section 4.1.7]
  - (7) The solvent-containing portion of the cold cleaner shall be free of all liquid leaks. Auxiliary cold cleaner equipment such as pumps, water separators, steam traps, or distillation units shall not have any

visible liquid leaks, visible tears, or cracks.

[Regulation 6.18, section 4.1.8]

- ii. The owner or operator shall observe at all time the following operating requirements: [Regulation 6.18, section 4.2]
  - (1) Waste solvent shall neither be disposed of nor transferred to another party in a manner such that more than 20% by weight of the waste solvent can evaporate. Waste solvent shall be stored only in a covered container. A covered container may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container. [Regulation 6.18, section 4.2.1]
  - (2) The solvent level in the cold cleaner shall not exceed the fill line. [Regulation 6.18, section 4.2.2]
  - (3) The cold cleaner cover shall be closed whenever a part is not being handled in the cold cleaner. [Regulation 6.18, section 4.2.3]
  - (4) Parts to be cleaned shall be racked or placed into the cold cleaner in a manner that will minimize drag-out losses. [Regulation 6.18, section 4.2.4]
  - (5) Cleaned parts shall be drained for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping, or rotating, the parts shall be positioned so that the solvent drains directly back to the cold cleaner. [Regulation 6.18, section 4.2.5]
  - (6) A spill during solvent transfer shall be cleaned immediately, and the wipe rags or other sorbent material shall be immediately stored in a covered container for disposal or recycling, unless enclosed storage of these items is not allowed by fire protection authorities. [Regulation 6.18, section 4.2.6]
  - (7) Sponges, fabric, wood, leather, paper products, and other absorbent material shall not be cleaned in a cold cleaner. [Regulation 6.18, section 4.2.7]
- iii. The owner or operator shall not operate a cold cleaner using a solvent with a vapor pressure that exceeds 1.0 mm Hg (0.019 psi) measured at 20° C (68° F). [Regulation 6.18, section 4.3.2]
- iv. See Plantwide Standards VOC section.

**S2. Monitoring and Record Keeping**

[Regulation 2.16, sections 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

**a. TAC**

- i. See Plantwide Monitoring and Record Keeping TAC section.

**b. VOC**

- i. The owner or operator shall maintain records that include the following for each purchase: [Regulation 6.18, section 4.4.2]
  - (1) The name and address of the solvent supplier.
  - (2) The date of the purchase.
  - (3) The type of the solvent.
  - (4) The vapor pressure of the solvent measured in mmHg at 20° C (68° F).
- ii. See Plantwide Monitoring and Record Keeping VOC section.

**S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition 14:

**a. TAC**

- i. See Plantwide Reporting TAC section.

**b. VOC**

- i. There are no routine compliance reporting requirements for Regulation 6.18.
- ii. See Plantwide Reporting VOC section.

**Emission Unit: Miscellaneous****Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                                          |                            |
|------------------------------------------|--------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                                             | <b>Applicable Sections</b> |
| 6.09                                     | Standards of Performance for Existing Process Operations                 | 1 through 3                |
| 6.24                                     | Standard of Performance for Existing Sources Using Organic Materials     | 1 through 6                |
| 7.08                                     | Standards of Performance for New Process Operations                      | 1 through 3                |
| 7.25                                     | Standard of Performance for New Sources Using Volatile Organic Compounds | 1 through 5                |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                         |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                            | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                             | 1, 2                       |
| 5.01                                                        | General Provisions                                                                      | 1 through 2                |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant  | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                  | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                    | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                         |                            |

**Equipment**

| <b>Emission Point</b> | <b>Description</b>                                                                                                                                                                    | <b>Install Date</b> | <b>Applicable Regulations</b> | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------|-------------------|-------------------|
| 32675-11              | AP1 Tub Re grinder rated at 4,000 lb/hr <sup>98</sup>                                                                                                                                 | 1974                | STAR, 6.09                    | N/A               | N/A               |
| 37206-13              | 5,500 lb/hr Hosokawa 80/140 CL Grinder and 4,500 lb/hr Hosokawa 60/140 CL Grinder with three process cyclones in AP5                                                                  | unk                 | STAR, 7.08                    | M-01              | N/A               |
| 176-93                | Miscellaneous chemical use in assembly/packing operations in the manufacture of refrigerators in AP5.                                                                                 | unk                 | STAR, 7.25                    | N/A               | N/A               |
| 178-93                | Miscellaneous chemical use in assembly/packing operations in the manufacture of dishwashers in AP3.                                                                                   | unk                 | STAR, 7.25                    | N/A               | N/A               |
| 483-92                | Miscellaneous chemical use in assembly/packing operations in the manufacture of washers and dryers in AP1.                                                                            | unk                 | STAR, 6.24                    | N/A               | N/A               |
| 479-94                | Sealant to reseal appliance cartons prior to shipment from AP10.                                                                                                                      | unk                 | STAR, 7.25                    | N/A               | N/A               |
| 35-04                 | Maintenance Paint Booth (Insignificant Activity)                                                                                                                                      | 2004                | STAR, 7.08, 7.25              | N/A               | N/A               |
| 583-92                | Washer and dryer Paint Touch-up in AP1.                                                                                                                                               | unk                 | STAR, 7.25                    | N/A               | N/A               |
| 471-94                | One Dishwasher rack repair station.                                                                                                                                                   | unk                 | STAR, 7.25                    | N/A               | N/A               |
| 585-91                | Drawing compound and lubricant used in hydraulic presses and other fabrication operations in AP1.                                                                                     | unk                 | STAR, 7.25                    | N/A               | N/A               |
| U149                  | Pedestal Touch-up Painting on washers and dryers in AP1.                                                                                                                              | unk                 | STAR, 7.25                    | N/A               | N/A               |
| U150                  | Touch-up Painting on dishwashers in AP3.                                                                                                                                              | unk                 | STAR, 7.25                    | N/A               | N/A               |
| Injecting Molding     | 137 Plastics compression or injection molding presses<br>AP1 - 28 presses, AP3 - 8 presses, AP4 - 94 presses, AP5 - 7 presses (Regulation 7.25 BACT process) (Insignificant Activity) | various             | STAR, 7.08, 7.25              | N/A               | N/A               |

<sup>98</sup> The original construction permit was for two regrinder units, in 1974. One regrinder was removed in February 2019.

**Control Devices**

| <b>Control ID</b> | <b>Description</b>     | <b>Control Efficiency</b> |
|-------------------|------------------------|---------------------------|
| M-01              | Kice VR60-10N baghouse | 98%                       |

## Miscellaneous Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. Opacity

- i. The owner or operator shall not cause to be discharged into the atmosphere from any affected facility (for each emission point 32675-11, 37206-13, and 35-04) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is equal to or greater than 20% opacity.<sup>99</sup>  
[Regulation 6.09, section 3.1 and Regulation 7.08, section 3.1.1]
- ii. For emission point Injection Molding: The owner or operator shall not cause to be discharged into the atmosphere from any affected facility (for each emission point listed in this emission unit) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is equal to or greater than 20% opacity.<sup>100</sup>  
[Regulation 7.08, section 3.1.1]

#### b. PM

- i. The owner and operator shall not cause to be discharged into the atmosphere from any affected facility (Re-Grinder, 32675-11) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is in excess of 6.25 lbs/hr based on actual operating hours in a calendar day.<sup>101</sup> [Construction Permit #32675-11-C], [Regulation 6.09, section 3.2]
- ii. The owner and operator shall not cause to be discharged into the atmosphere from any affected facility (Hosokawa 80/140 CL grinder, 37206-13) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is in excess of 6.72 lbs/hr based on actual operating hours in a calendar day.<sup>102</sup>  
[Construction Permit #37206-13-C(R1)], [Regulation 7.08, section 3.1.2]
- iii. The owner and operator shall not cause to be discharged into the atmosphere from any affected facility (Hosokawa 60/140 CL grinder, 37206-13) or from any air pollution control equipment installed on any affected facility,

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<sup>99</sup> The visual inspection of the mechanical and structural integrity of the grinder and cyclone unit will ensure the opacity standard is not exceeded.

<sup>100</sup> The District has determined that no periodic visible emissions surveys are required for this emission unit.

<sup>101</sup> A one-time PM compliance demonstration for this equipment was performed on May 19, 2011 and the lb/hr standard should be met uncontrolled.

<sup>102</sup> A one-time PM compliance demonstration for this equipment was performed on July 2, 2014 and the lb/hr standard should be met uncontrolled.

any gases that may contain particulate matter that is in excess of 5.94 lbs/hr based on actual operating hours in a calendar day.<sup>103</sup>  
[Construction Permit #37206-13-C(R1)], [Regulation 7.08, section 3.1.2]

- iv. The owner and operator shall not cause to be discharged into the atmosphere from any affected facility (emission point 35-04) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is in excess of 2.34 lbs/hr based on actual operating hours in a calendar day.<sup>103</sup> [Regulation 7.08, section 3.1.2]
- v. For emission point Injection Molding: The owner and operator shall not cause to be discharged into the atmosphere from any affected facility (for each emission point listed in this emission unit) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is in excess of 2.34 lbs/hr based on actual operating hours in a calendar day.<sup>103</sup> [Regulation 7.08, section 3.1.2]

**c. TAC**

- i. See Plantwide Standards TAC section.

**d. VOC**

- i. For equipment subject to Regulation 7.25
  - (1) The owner or operator shall limit VOC emissions to 4.4 tons per 12 consecutive month period or less for emission point 176-93, miscellaneous chemical use in assembly/packing operations in the manufacture of refrigerators.  
[Construction Permit 176-93], [Regulation 7.25, section 3.1]
  - (2) The owner or operator shall limit VOC emissions to 4.9 tons per 12 consecutive month period or less for emission point 178-93, miscellaneous chemical use in assembly/packing operations in the manufacture of dishwashers.  
[Construction Permit 178-93], [Regulation 7.25, section 3.1]
  - (3) The owner or operator shall limit VOC emissions to 0.0048 tons per 12 consecutive month period or less for emission point 479-94, sealant to reseal appliance cartons prior to shipment from Building 10. [Construction Permit 479-94], [Regulation 7.25, section 3.1]
  - (4) The owner or operator shall limit VOC emissions to 2.8 tons per 12 consecutive month period or less for emission point 585-91, drawing compound and lubricant use in hydraulic presses and other

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<sup>103</sup> A one-time PM compliance demonstration for this equipment was performed and the lb/hr standard should be met uncontrolled.

- fabrication operations.  
[Construction Permit 585-91], [Regulation 7.25, section 3.1]
- (5) The owner or operator shall limit VOC emissions to 0.55 tons per 12 consecutive month period or less for emission point 583-92, washer and dryer paint touch-up.  
[Construction Permit 583-92], [Regulation 7.25, section 3.1]
- (6) The owner or operator shall limit VOC emissions to 0.67 tons per 12 consecutive month period or less for emission point 471-94, one dishwasher rack repair station.  
[Construction Permit 471-94], [Regulation 7.25, section 3.1]
- (7) The owner or operator shall limit VOC emissions to 4.9 tons per 12 consecutive month period or less for emission point 35-04, maintenance paint booth.  
[Construction Permit 35-04-C], [Regulation 7.25, section 3.1]
- (8) For emission points U149 and U150: The owner or operator shall not allow or cause the emissions of VOC from equipment subject to Regulation 7.25 plantwide for emission points that do not have a BACT limit or a banking limit to exceed 5 tons during any consecutive 12-month period.<sup>104</sup> [Regulation 7.25, section 5.1]
- (9) The owner or operator shall limit VOC emissions to 8.59 tons per 12 consecutive month period or less for emission point Injection Molding. [Regulation 7.25, section 3.1]
- ii. For emission point 483-92, miscellaneous chemical use in assembly/packing operations for assembly line usage of various adhesives and solvents used on washers and dryers, subject to Regulation 6.24:
- (1) Class II Solvents - No owner or operator shall discharge into the atmosphere more than 40 pounds of organic materials in any one day, or more than 8 pounds in any one hour, from any existing affected facility in which any Class II solvent is used unless said discharge has been reduced by at least 85% by weight.  
[Regulation 6.24, section 3.2]
- (2) Class III Solvents - No owner or operator shall discharge into the atmosphere more than 3,000 pounds of organic materials in any one day, or more than 450 pounds in any one hour, from any existing affected facility in which any Class III solvent is used unless said discharge has been reduced by at least 85% by weight.  
[Regulation 6.24, section 3.3]

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<sup>104</sup> Equipment subject to the plantwide 5 ton per year VOC emission limit in Regulation 7.25 are U311 AP3-311; U500 EP-500(a & b); U149 touch-up painting; U150 touch-up painting; U530 EP-IA8; and Insignificant Activities that are noted in the Insignificant Activity Table as *Regulation 7.25 non-BACT process IA02*.

- (3) Maximum permitted capacity is 70,000 units per week, but total annual production may not exceed 2,300,000 units.  
[Construction Permit 483-92]
- (4) The owner or operator shall limit VOC emissions to 29.5 tons per 12 consecutive month period or less for emission point 483-92.  
[Construction Permit #483-92]

iii. See Plantwide Standards VOC section.

## **S2. Monitoring and Record Keeping**

[Regulation 2.16, sections 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

### **a. Opacity**

i. For emission point 32675-11 and 37206-13:

- (1) The owner or operator shall, monthly, perform a visual inspection of the grinder and cyclone unit to check the structural and mechanical integrity of the system for signs of damage, air leakage, corrosion, or other equipment defects and repair as needed.
- (2) The owner or operator shall maintain records, monthly, of the results of all visual inspections. Records of the results of any visual inspection shall include the date of the survey, the name of the person conducting the survey, whether or not damage was observed, and what, if any, corrective action was performed.

### **b. PM**

i. There are no compliance monitoring or record keeping requirements for this equipment.

### **c. TAC**

i. See Plantwide Monitoring and Record Keeping TAC section.

### **d. VOC**

i. For equipment subject to Regulation 7.25:

- (1) The owner or operator shall monthly calculate and record the monthly and twelve consecutive month VOC emissions for emission point 176-93, miscellaneous chemical use in assembly/packing operations in the manufacture of refrigerators.

- (2) The owner or operator shall monthly calculate and record the monthly and twelve consecutive month VOC emissions for emission point 178-93, miscellaneous chemical use in assembly/packing operations in the manufacture of dishwashers.
  - (3) The owner or operator shall monthly calculate and record the monthly and twelve consecutive month VOC emissions for emission point 479-94, sealant to reseal appliance cartons prior to shipment from building #10.
  - (4) The owner or operator shall monthly calculate and record the monthly and twelve consecutive month VOC emissions for emission point 585-91, drawing compound and lubricant use in hydraulic presses and other fabrication operations.
  - (5) The owner or operator shall monthly calculate and record the monthly and twelve consecutive month VOC emissions for emission point 583-92, washer and dryer paint touch-up.
  - (6) The owner or operator shall monthly calculate and record the monthly and twelve consecutive month VOC emissions for emission point 471-94, dishwasher rack repair station.
  - (7) The owner or operator shall monthly calculate and record the monthly and twelve consecutive month VOC emissions for emission point 35-04, maintenance paint booth.
  - (8) The owner or operator shall, monthly, calculate and record the monthly and 12 consecutive month VOC emissions in order to demonstrate compliance with the 5 ton per 12 consecutive month period limit for all equipment subject to Regulation 7.25 and do not have a BACT limit.
  - (9) The owner or operator shall monthly calculate and record the monthly and twelve consecutive month VOC emissions for emission point Injection Molding.<sup>105</sup>
- ii. For emission point 483-92, miscellaneous chemical use in assembly/packing operations for assembly line usage of various adhesives and solvents used on washers and dryers, subject to Regulation 6.24:
- (1) The owner or operator shall daily record the hours of operation of the equipment.
  - (2) The owner or operator shall monthly record the raw material usage.
  - (3) The owner or operator shall monthly calculate and record the average hourly and daily VOC emissions for Class II solvents subject to Regulation 6.24.

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<sup>105</sup> Since the injection molding equipment are insignificant activities the company can record the PTE each month and report the PTE as the emissions for the year. The monthly PTE is 1432 lbs (0.716 tons) per month.

- (4) The owner or operator shall monthly calculate and record the average hourly and daily VOC emissions for Class III solvents subject to Regulation 6.24.
- (5) The owner or operator shall monthly record the total production (units) for the month.
- (6) The owner or operator shall monthly calculate and record the year-to-date production (units).
- (7) The owner or operator shall monthly calculate and record the monthly and twelve consecutive month VOC emissions for emission point 483-92.

iii. See Plantwide Monitoring and Record Keeping VOC section.

### **S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition 14:

#### **a. Opacity**

- i. Any deviation from the requirement to perform and record the results of each monthly visual inspection.
- ii. Any deviations from the requirement to record the results of each monthly visual inspection performed.
- iii. The date of each visual inspection where damage was observed and the corrective action taken.

#### **b. PM**

- i. There are no compliance reporting requirements for this equipment.

#### **c. TAC**

- i. See Plantwide Reporting TAC section.

#### **d. VOC**

- i. The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports:
  - (1) Identification of all periods of exceedances of the VOC limit including the quantity of excess emissions.
  - (2) Reason for excess emissions.

- (3) Description of corrective action taken to prevent future exceedances.
- ii. For 5 tons per 12-consecutive-month period Non-BACT limit:
  - (1) Identification of all periods of exceedances of the VOC limit including the quantity of excess emissions.
  - (2) Reason for excess emissions.
  - (3) Description of corrective action taken to prevent future exceedances.
- iii. See Plantwide Reporting VOC section.

### **Permit Shield**

The owner or operator is hereby granted a permit shield that shall apply as long as the owner or operator demonstrates ongoing compliance with all conditions of this permit. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements of the regulations cited in this permit as of the date of issuance, pursuant to Regulation 2.16, section 4.6.1.

### **Off-Permit Documents**

There are no off-permit documents associated with this Title V permit.

### **Alternative Operating Scenario**

The company has requested the use of colored basecoat powders in U530-EP5 Clear Coat Electrostatic Powder Booth as an alternative operating scenario. (See table at the front of this permit.)

## Insignificant Activities

| Equipment <sup>106</sup>                                                                                                                                                                                                                                                                                                                                                                               | Qty. | PTE (ton/yr)                     | Regulation Basis              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------------------------|-------------------------------|
| Fuel or lubricating oils storage tanks:<br>VP<10 mmHg<br>Emission Unit IA04 (U89))                                                                                                                                                                                                                                                                                                                     | <32  | <0.1 VOC each                    | Regulation 1.02, Appendix A   |
| Brazing, soldering, or welding equipment (Emission Unit IA03-1)                                                                                                                                                                                                                                                                                                                                        | >60  | 1.0 PM combined                  | Regulation 1.02, Appendix A   |
| Plastics compression or injection molding (Regulation 7.25 BACT process, Emission Unit Miscellaneous)                                                                                                                                                                                                                                                                                                  | 137  | 8.59 VOC combined <sup>107</sup> | Regulation 1.02, Section 1.38 |
| Indirect-fired Hot Water heaters located throughout the plant all less than 1.0 MMBtu/hr (Emission Unit IA01-6) <sup>108</sup>                                                                                                                                                                                                                                                                         | >50  | 1.0 NOx each                     | Regulation 1.02, Appendix A   |
| Maintenance Paint Booth (Previously Permit 35-04) (See Emission Unit: Miscellaneous for standards, monitoring, recordkeeping, and reporting requirements)                                                                                                                                                                                                                                              | 1    | 4.9 VOC                          | Regulation 1.02, Section 1.38 |
| R & D facilities                                                                                                                                                                                                                                                                                                                                                                                       | <25  | 4.9 PM/VOC each                  | Regulation 1.02, Appendix A   |
| VOC Pressurized Storage tanks:<br>MDI Bulk Storage Tank 27,000 Gallons<br>Polyol Bulk Storage Tank 27,000 Gallons<br>Cyclopentane Bulk Storage Tank 12,000 Gallons<br>Case Mixer Tank 5,600 Gallons<br>Door Mixer Tank 5,600 Gallons<br>Case Poly Blend Hold Tanks 5,300 Gallons<br>Door Poly Blend Hold Tank 5,300 Gallons<br>Polycat Bulk Storage Tank 3,700 Gallons<br>2 Additive Tanks 250 Gallons | 11   | 0.0 VOC while under pressure     | Regulation 1.02, Appendix A   |
| VOC storage tanks 250 gallons or less:<br>8 Day Tanks < 250 gallons<br>Day Tank Storage of MDI 100 gallons<br>Day Tank Storage of Polyol and Blowing Agent 100 gallons                                                                                                                                                                                                                                 | 10   | <4.9 VOC each                    | Regulation 1.02, Appendix A   |

<sup>106</sup> Equipment subject to the plantwide 5 ton per year VOC emission limit in Regulation 7.25 are U311 AP3-311, U500 EP-500(a & b), U149 touch-up painting, U150 touch-up painting, and Insignificant Activities that are noted in the Insignificant Activity Table as Regulation 7.25 non-BACT process.

<sup>107</sup> The injection molding equipment in each building VOC emissions are less than 5 tpy combined.

<sup>108</sup> These are not process heaters and are not subject to 40 CFR 63 Subpart DDDDD, they are less than 1 MMBtu/hr and not subject to Regulation 7.06. They are *de minimis* for STAR as they are natural gas combustion according to Regulation 5.21, section 2.7.

| <b>Equipment <sup>106</sup></b>                                                                                                                                                              | <b>Qty.</b> | <b>PTE<br/>(ton/yr)</b> | <b>Regulation Basis</b>       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------------|-------------------------------|
| Lubricating Oils or fuels oils storage tanks with a vapor pressure of < 10 mm <sub>Hg</sub> :<br>Compressor Oil Process Tank, 70 gallons<br>Compressor Oil Clean Reservoir Tank, 150 Gallons | 2           | <4.9 VOC each           | Regulation 1.02, Appendix A   |
| Lab venting and exhausting                                                                                                                                                                   | >25         | <4.9 VOC each           | Regulation 1.02, Appendix A   |
| Soil or groundwater remediation (Regulation 7.25 non-BACT process, Emission Unit IA02-24)                                                                                                    | 1           | <4.9 VOC                | Regulation 1.02, Appendix A   |
| Waste water Treatment plant consisting of two clarifiers, two filter presses, chemicals, and a skimmer (Regulation 7.25 non-BACT process, Emission Unit IA02-22)                             | 1           | 0.1 VOC                 | Regulation 1.02, Section 1.38 |
| Pedestal Plastic Regrinder (Emission Unit IA03-2)                                                                                                                                            | 1           | 1.55 PM                 | Regulation 1.02, Section 1.38 |
| Cleaner and Lubricant Use for new Bottom Mount Assembly Operation (Regulation 7.25 non –BACT process, Emission Unit IA02-1)                                                                  | 1           | 0.8 VOC                 | Regulation 1.02, Section 1.38 |
| Brazing, Soldering or Welding on Nylon Wire Rack Line (Emission Unit IA03-5)                                                                                                                 | 1           | 1.0 PM                  | Regulation 1.02, Appendix A   |
| Nylon powder transfer/clean-up activities (Emission Unit IA03-6)                                                                                                                             | 1           | 4.6 PM                  | Regulation 1.02, Section 1.38 |
| Stainless Dishwasher Steel Tub Assembly (Regulation 7.25 non –BACT process, Emission Unit IA02-5)                                                                                            | 1           | 0.22 VOC                | Regulation 1.02, Section 1.38 |
| Dishwasher Door Mastic Application (Regulation 7.25 non –BACT process, Emission Unit IA02-6)                                                                                                 | 1           | 0.45 VOC                | Regulation 1.02, Section 1.38 |
| Tub Top and Bottom Mastic Application (Regulation 7.25 non –BACT process, Emission Unit IA02-7)                                                                                              | 1           | 0.71 VOC                | Regulation 1.02, Section 1.38 |
| Tub Wrap Mastic Application (Regulation 7.25 non –BACT process, Emission Unit IA02-8)                                                                                                        | 1           | 1.41 VOC                | Regulation 1.02, Section 1.38 |
| AP1 RTV Silicone Station (Regulation 7.25 non –BACT process, Emission Unit IA02-9)                                                                                                           | 1           | 0.22 VOC                | Regulation 1.02, Section 1.38 |

| Equipment <sup>106</sup>                                                                                                                                       | Qty. | PTE (ton/yr)  | Regulation Basis              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------|-------------------------------|
| Pad Printing (Regulation 7.25 non –BACT process, Emission Unit IA02-10)                                                                                        | 2    | <1.0 VOC each | Regulation 1.02, Section 1.38 |
| Small Freezer Door Foaming Operation (Regulation 7.25 non –BACT process, Emission Unit IA02-12)                                                                | 1    | <1.0 VOC      | Regulation 1.02, Section 1.38 |
| Pellet Grinder and process cyclone make Granutec G3030 (Emission Unit IA03-7)                                                                                  | 1    | 1.75 PM       | Regulation 1.02, Section 1.38 |
| Grinding operation for the AP3 Ash White Tub Re-grinder (Emission Unit IA03-8)                                                                                 | 1    | 1.75 PM       | Regulation 1.02, Section 1.38 |
| Small Re-grinders in AP4 used to recycle plastic (Emission Unit IA03-9)                                                                                        | <10  | ≤4.9 PM each  | Regulation 1.02, Section 1.38 |
| Small Re-grinders in AP5 used to recycle plastic (Emission Unit IA03-10)                                                                                       | 1    | 1.3 PM        | Regulation 1.02, Section 1.38 |
| Unloading, Conveyance and Storage of Plastic Pellets in AP1 (Emission Unit IA03-11)                                                                            | 1    | <1.0 PM       | Regulation 1.02, Section 1.38 |
| Unloading, Conveyance and Storage of Plastic Pellets in AP3 (Emission Unit IA03-12)                                                                            | 1    | <1.0 PM       | Regulation 1.02, Section 1.38 |
| Unloading, Conveyance and Storage of Plastic Pellets in AP4 (Emission Unit IA03-13)                                                                            | 1    | <1.5 PM       | Regulation 1.02, Section 1.38 |
| Unloading, Conveyance and Storage of Plastic Pellets in AP5 (Emission Unit IA03-14)                                                                            | 1    | <1.0 PM       | Regulation 1.02, Section 1.38 |
| Aerosol spray adhesive usage in the warehouse for replacing loose labels on boxes prior to shipping (Regulation 7.25 non –BACT process, Emission Unit IA02-13) | 1    | 1.0 VOC       | Regulation 1.02, Section 1.38 |
| 2.0 MMBtu/hr AP1 Make Up Air Heater, Maxon 2.0 APX Line Burner (Direct fired unit, Emission Unit IA05-1) <sup>109</sup>                                        | 1    | 0.83 NOx      | Regulation 1.02, Appendix A   |
| IA01-5: 1.99 MMBtu/hr Bradford White hot water heater in the Park Athletic Club < 120 gallon tank (Indirect Fired heat exchanger, Emission Unit U81 and U82)   | 1    | 0.83 NOx      | Regulation 1.02, Appendix A   |

<sup>109</sup> This heater is a direct fired process heater and not subject to 40 CFR 63 Subpart DDDDD. Since it a direct fired process heater it is not subject to Regulation 7.06. They are *de minimis* for STAR as they are natural gas combustion according to Regulation 5.21, section 2.7.

| Equipment <sup>106</sup>                                                                                                 | Qty. | PTE (ton/yr)   | Regulation Basis              |
|--------------------------------------------------------------------------------------------------------------------------|------|----------------|-------------------------------|
| IA01-3: 7.5 MMBtu/hr Maxon Tube-O-Therm 8" HC (Indirect Fired heat exchanger, Emission Unit U81 and U82)                 | 1    | 3.27 NOx       | Regulation 1.02, Appendix A   |
| 0.1 MMBtu/hr: Sterling QVEF heater (Indirect Fired Space/comfort heaters) (Emission Unit IA01-7) <sup>110</sup>          | 3    | 0.04 NOx each  | Regulation 1.02, Appendix A   |
| 0.2 MMBtu/hr: Sterling QVEF heater (Indirect Fired Space/comfort heaters) (Emission Unit IA01-8) <sup>110</sup>          | 7    | 0.08 NOx each  | Regulation 1.02, Appendix A   |
| 0.25 MMBtu/hr: Sterling QVEF heater (Indirect Fired Space/comfort heaters) (Emission Unit IA01-9) <sup>110</sup>         | 15   | 0.10 NOx each  | Regulation 1.02, Appendix A   |
| 0.3 MMBtu/hr: Sterling QVEF heater (Indirect Fired Space/comfort heaters) (Emission Unit IA01-10) <sup>110</sup>         | 9    | 0.13 NOx each  | Regulation 1.02, Appendix A   |
| 0.4 MMBtu/hr: Sterling QVEF heater (Indirect Fired Space/comfort heaters) (Emission Unit IA01-11) <sup>110</sup>         | 11   | 0.17 NOx each  | Regulation 1.02, Appendix A   |
| 0.03 MMBtu/hr: Qmark MUH-10-41 (10 kW) (Indirect Fired Space/comfort heaters) (Emission Unit IA01-12) <sup>110</sup>     | 3    | 0.13 NOx each  | Regulation 1.02, Appendix A   |
| 0.14 MMBtu/hr: Abrade System Direct-fired natural gas units (Emission unit IA05)                                         | 2    | 0.001 NOx each | Regulation 1.02, Section 1.38 |
| 0.757 MMBtu/hr: Cambridge S800 direct fired heat exchangers (Space/comfort heaters, Emission Unit IA05-2) <sup>111</sup> | 3    | 0.33 NOx each  | Regulation 1.02, Appendix A   |
| 0.400 MMBtu/hr: Cambridge S400 direct fired heat exchangers (Space/comfort heaters, Emission Unit IA05-3) <sup>111</sup> | 2    | 0.17 NOx each  | Regulation 1.02, Appendix A   |
| 0.125 MMBtu/hr heater (Indirect Fired Space/comfort heaters) (Emission Unit IA01-13) <sup>110</sup>                      | 5    | 0.05 NOx each  | Regulation 1.02, Appendix A   |

<sup>110</sup> These space/comfort heaters are not process heaters and not subject to 40 CFR 63 Subpart DDDDD. These are indirect fired heat exchangers but are each below 1 MMBtu/hr and not subject to Regulation 7.06. They are *de minimis* for STAR as they are natural gas combustion according to Regulation 5.21, section 2.7.

<sup>111</sup> These are direct fired space/comfort heaters and not process heaters, therefore, they are not subject to 40 CFR 63 Subpart DDDDD. Since they are direct fired heat exchangers they are not subject to Regulation 7.06. They are *de minimis* for STAR as they are natural gas combustion according to Regulation 5.21, section 2.7.

| <b>Equipment <sup>106</sup></b>                                                                                                                                                                                                                                                                      | <b>Qty.</b> | <b>PTE<br/>(ton/yr)</b> | <b>Regulation Basis</b>       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------------|-------------------------------|
| 0.3 MMBtu/hr heater (Indirect Fired Space/comfort heaters) (Emission Unit IA01-14) <sup>110</sup>                                                                                                                                                                                                    | 13          | 0.13 NOx<br>each        | Regulation 1.02, Appendix A   |
| 1.2 MMBtu/hr: Cambridge S1200 direct fired heat exchanger (Space/comfort heaters, Emission Unit IA05-4) <sup>111</sup>                                                                                                                                                                               | 6           | 0.52 NOx<br>each        | Regulation 1.02, Appendix A   |
| 1.499 MMBtu/hr: Cambridge S1600 direct fired heat exchanger (Space/comfort heaters, Emission Unit IA05-5) <sup>111</sup>                                                                                                                                                                             | 12          | 0.64 NOx<br>each        | Regulation 1.02, Appendix A   |
| 2.2 MMBtu/hr: Cambridge S2200 direct fired heat exchanger (Space/comfort heaters, Emission Unit IA05-6) <sup>111</sup>                                                                                                                                                                               | 3           | 0.94 NOx<br>each        | Regulation 1.02, Appendix A   |
| 3.107 MMBtu/hr: Cambridge S3200 direct fired heat exchanger (Space/comfort heaters, Emission Unit IA05-7) <sup>111</sup>                                                                                                                                                                             | 45          | 1.33 NOx<br>each        | Regulation 1.02, Appendix A   |
| 5.887 MMBtu/hr: Cambridge M136 direct fired heat exchanger (Space/comfort heaters, Emission Unit IA05-8) <sup>111</sup>                                                                                                                                                                              | 5           | 2.53 NOx<br>each        | Regulation 1.02, Appendix A   |
| 7 MMBtu/hr natural gas dryoff oven (Direct fired Unit, Emission Unit IA05-9) <sup>109</sup>                                                                                                                                                                                                          | 1           | 2.92 NOx                | Regulation 1.02, Appendix A   |
| HA Gas Dryer Test Loop (Emission Unit IA05-10)                                                                                                                                                                                                                                                       | 1           | <1.0 NOx                | Regulation 1.02, Section 1.38 |
| Cooling towers: (Emission Unit IA03-15)<br>AP-1 Front Tower<br>AP-2 Rear Tower<br>AP-2 Front Tower<br>AP-2 Outlying Tower<br>AP-3 North Tower<br>AP-4 South Tower<br>AP-4 Front Tower<br>AP-4 Plastics Tower<br>AP-5 Plastics Tower<br>AP-5 Front Tower<br>AP-20 Tower<br>AP-32 Tower<br>AP-33 Tower | 13          | <3.0 PM<br>each         | Regulation 1.02, Section 1.38 |
| AP1 Powder Paint Pretreatment Washing Tunnel (Regulation 7.59) (Emission Unit U01 emission point EP-100C)                                                                                                                                                                                            | 1           | 3.6 VOC                 | Regulation 1.02, Section 1.38 |

| <b>Equipment <sup>106</sup></b>                                                                                                 | <b>Qty.</b> | <b>PTE<br/>(ton/yr)</b>       | <b>Regulation Basis</b>       |
|---------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------------------|-------------------------------|
| AP2 Metallic PP Pretreatment Washing Tunnel (Regulation 7.25 non –BACT process, Emission Unit IA02-15)                          | 1           | 3.11 VOC                      | Regulation 1.02, Section 1.38 |
| MEK Quality Test Metallic Powder Painted Parts (AP2) (Regulation 7.25 non –BACT process, Emission Unit IA02-16)                 | 1           | 0.04 VOC                      | Regulation 1.02, Section 1.38 |
| Ultrasonic Cleaner for Powder Paint Tools (Regulation 7.25 non –BACT process, Emission Unit IA02-17)                            | 3           | 0.2 VOC<br>each               | Regulation 1.02, Section 1.38 |
| HA Drum Fabrication Lubricant (Regulation 7.25 non –BACT process, Emission Unit IA02-19)                                        | 1           | 2.6 VOC                       | Regulation 1.02, Section 1.38 |
| Swedging/Cutting Lubricant application (Regulation 7.25 non –BACT process, Emission Unit IA02-20)                               | 1           | 0.13 VOC                      | Regulation 1.02, Section 1.38 |
| Evaporator De-Fin Lubricant application (Regulation 7.25 non –BACT process, Emission Unit IA02-21)                              | 1           | 1.2 VOC                       | Regulation 1.02, Section 1.38 |
| Markforged ‘Metal X’ 3D Printer (IA02-32) (Regulation 7.25 non –BACT process)                                                   | 1           | 0.0001 VOC                    | Regulation 1.02, Section 1.38 |
| Markforged ‘Wash-1’ washer/debinder (IA02-33) (Regulation 7.25 non –BACT process)                                               | 1           | 3.43 VOC                      | Regulation 1.02, Section 1.38 |
| Markforged ‘Sinter-1’ sintering oven (IA02-34) (Regulation 7.25 non –BACT process)                                              | 1           | 0.03 VOC                      | Regulation 1.02, Section 1.38 |
| Hot Plate Welding of Plastic Parts (Emission Unit IA03-18)                                                                      | 2           | <0.6 PM<br>each unit          | Regulation 1.02, Section 1.38 |
| Touch-up Paints and Adhesives not subject to 40 CFR 63, Subpart NNNN (Regulation 7.25 non –BACT process, Emission Unit IA02-18) | 10          | 4.9 VOC<br>combined           | Regulation 1.02, Section 1.38 |
| Sanding process to scuff-sand defective painted parts on downdraft table with cartridges (Emission Unit IA03-17)                | 2           | <1.0 PM <sub>10</sub><br>each | Regulation 1.02, Section 1.38 |

| <b>Equipment <sup>106</sup></b>                                                                                                                                                                                                                        | <b>Qty.</b> | <b>PTE<br/>(ton/yr)</b> | <b>Regulation Basis</b>       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------------|-------------------------------|
| AERCO 2 MMBtu/hr Natural Gas Fired Hot Water Boiler, model family BMK (AP-1, AP-2, AP-3, and AP-4) (IA) (Emission Unit U81 and U82)                                                                                                                    | 12          | 0.88 NOx each           | Regulation 1.02, Appendix A   |
| Washer Immersion Heater Stage 1 Maxon 8" Tube-O-Therm rated at 5.3 MMBtu/hr (IA) (Emission Unit U81 and U82)                                                                                                                                           | 1           | 2.41 NOx                | Regulation 1.02, Appendix A   |
| Washer Immersion Heater Stage 2 Maxon 6" Tube-O-Therm rated at 3.0 MMBtu/hr (IA) (Emission Unit U81 and U82)                                                                                                                                           | 1           | 1.33 NOx                | Regulation 1.02, Appendix A   |
| Wash System for Stainless Steel Washer and Dryer Baskets that consists of a heated bath that has a natural gas fired burner for heating. The Immersion Heater is an Eclipse ImmersoPak IP-010, 3.2 MMBtu/hr (burner is IA) (Emission Unit U81 and U82) | 1           | 1.34 NOx                | Regulation 1.02, Appendix A   |
| EP AP3 Comms - AP3 Communications Center Natural Gas Fired Emergency Generator Engine:<br>Cummins model GGLA 198 HP (Emission Unit U111)                                                                                                               | 1           | 1.535 NOx               | Regulation 1.02, Section 1.38 |
| EP AP5 - AP5 Emergency Diesel-Fired Generator Engine: Caterpillar model D330 150 HP (Emission Unit U111)                                                                                                                                               | 1           | 1.163 NOx               | Regulation 1.02, Section 1.38 |
| AP23a - Mitsubishi S12A2-Y2PTAW-2 Emergency Generator Engine 900 kW (1207 HP) (Emission Unit U112)                                                                                                                                                     | 1           | 4.921 NOx               | Regulation 1.02, Section 1.38 |
| AP23b - Mitsubishi S12A2-Y2PTAW-2 Emergency Generator Engine 900 kW (1207 HP) (Emission Unit U112)                                                                                                                                                     | 1           | 4.921 NOx               | Regulation 1.02, Section 1.38 |
| EP IWT - Backup Emergency Diesel-Fired Generator Engine (IWT Generator): John Deere model 4024HF285B 80 HP (Emission Unit U112)                                                                                                                        | 1           | 0.620 NOx               | Regulation 1.02, Section 1.38 |
| Solvent Metal Cleaning Equipment - cold solvent parts cleaners are equipped with secondary reservoirs (Regulation 6.18) (Emission Unit Solvent Metal Cleaning Equipment)                                                                               | 30          | 0.1 VOC each            | Regulation 1.02, Appendix A   |
| IA01-1 AP3 Nylon Heater rated at 0.9 MMBtu/hr (Emission Unit IA01)                                                                                                                                                                                     | 1           | 0.56 NOx                | Regulation 1.02, Appendix A   |

| <b>Equipment <sup>106</sup></b>                                                                                                                   | <b>Qty.</b> | <b>PTE<br/>(ton/yr)</b>    | <b>Regulation Basis</b>       |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------------------|-------------------------------|
| IA01-2 Eclipse ImmersoPak IP008 heat rated at 2.05 MMBtu/hr (Emission Unit U81 & U82)                                                             | 2           | 0.894 NO <sub>x</sub> each | Regulation 1.02, Appendix A   |
| IA01-16 Eclipse ImmersoPak IP008 heat rated at 2.05 MMBtu/hr (Emission Unit U81 & U82)                                                            | 1           | 0.894 NO <sub>x</sub>      | Regulation 1.02, Appendix A   |
| Custom Pretreat Washer for AP1 Powder Paint System (Emission Unit U01) Subject to Regulation 7.59                                                 | 1           | 3.6 VOC                    | Regulation 1.02, Section 1.38 |
| Four (4) Lubricant for Door Panel Presses for AP2 (Emission Unit U104- U107)                                                                      | 4           | <3.0 VOC each              | Regulation 1.02, Section 1.38 |
| Central Vacuum System for AP1 (Emission Unit IA03-19)                                                                                             | 1           | 0.3 PM                     | Regulation 1.02, Section 1.38 |
| Solvent-based Ultrasonic Cleaner AP5 (Regulation 7.25 non –BACT process, Emission Unit IA02-23)                                                   | 1           | 1.6 VOC                    | Regulation 1.02, Section 1.38 |
| Stainless Steel Dish Door Wipe, (Regulation 7.25 non-BACT process, Emission Unit U530)                                                            | 1           | 1.72 VOC                   | Regulation 1.02, section 1.38 |
| Tri-Flow (product series TF210010) lubricant for Die Maintenance (Regulation 7.25 non –BACT process, IA02-25)                                     | 1           | 0.49 VOC                   | Regulation 1.02, section 1.38 |
| Bumper repair using Loctite Prism 401 adhesive or similar material, Lines 7, 8, and 9 <sup>112</sup> (Regulation 7.25 non –BACT process, IA02-26) | 3           | 0.07 VOC total             | Regulation 1.02, section 1.38 |
| AP5 Fresh Food Door-in-Door Foaming (Regulation 7.25 non –BACT process, IA02-27)                                                                  | 1           | 0.01 VOC                   | Regulation 1.02, section 1.38 |
| AP1 Laundry Stamping: Aida and CMI Presses, Draw-Clean 660 usage (Regulation 7.25 non –BACT process, IA02-28)                                     | 2           | 2.07 VOC total             | Regulation 1.02, section 1.38 |
| AP4 Injection molding – Mold release, cleaner, and preventatives usage (aerosol spray cans)                                                       | 1           | 0.50 VOC<br>0.34 HAP       | Regulation 1.02, section 1.38 |

<sup>112</sup> General Electric Appliances submitted a PTE justifying designation of this operation as an insignificant activity based on emissions from Loctite Prism 401 adhesive. Other similar adhesives may be substituted for the convenience of GEA if total emissions from this source are not increased.

| <b>Equipment <sup>106</sup></b>                                                                        | <b>Qty.</b> | <b>PTE<br/>(ton/yr)</b> | <b>Regulation Basis</b>          |
|--------------------------------------------------------------------------------------------------------|-------------|-------------------------|----------------------------------|
| (Regulation 7.25 non –BACT process, IA02-29)                                                           |             |                         |                                  |
| AP10 Contractor Package regluing<br>(Regulation 7.25 non –BACT process, IA02-30)                       | 1           | 0.03 VOC                | Regulation 1.02,<br>section 1.38 |
| AP1, lines 7 and 8 Capacitor lubricant for ergonomics<br>(Regulation 7.25 non –BACT process, IA02-31)  | 3           | 0.05 VOC<br>Total       | Regulation 1.02,<br>section 1.38 |
| Central Vacuum System for AP2<br>(Emission Unit IA03-20)                                               | 1           | 0.30 PM <sub>10</sub>   | Regulation 1.02,<br>section 1.38 |
| Quality Scan spray booths for dimensional verification<br>(Regulation 7.25 non –BACT process, IA02-35) | 4           | 5.6 VOC<br>(total)      | Regulation 1.02,<br>section 1.38 |

IA Notes:

1. Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16, section 3.5.4.1.4.
2. Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements as required by Regulation 2.16, section 4.1.9.4.
3. The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.
4. Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.
5. The owner or operator shall submit an updated list of insignificant activities that occurred during the preceding year pursuant to Regulation 2.16, section 4.3.5.3.6.
6. The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) to be reported on the annual emission inventory.
7. The District has determined pursuant to Regulation 2.16, section 4.1.9.4 that no monitoring, record keeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.
8. The District does not have adequate information to determine emissions from the following equipment: There are currently no compliance monitoring and recordkeeping requirements, and no reporting requirements, for any of these below equipment items, which are considered “non-regulated equipment” for air permitting purposes:

| <b>Equipment</b>                                         | <b>Quantity</b> |
|----------------------------------------------------------|-----------------|
| Emergency Relief Vents – non- regulated process          | >10             |
| Non-Stationary (Mobile) IC Engine –non-regulated process | 1               |
| Vent systems for cafeterias                              | >10             |
| Use of peanut, sunflower, canola, or cottonseed oils     | 4               |

**Emission Unit IA01: IA Indirect-fired Combustion Sources < 1 MMBtu/hr**

**Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                                                                                                                   |                            |
|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                                                                                                                      | <b>Applicable Sections</b> |
| 40 CFR 63 Subpart A                      | General Provisions                                                                                                                                | All                        |
| 40 CFR 63 Subpart DDDDD                  | National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters | 63.7480 through 63.7485    |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                         |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                            | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                             | 1, 2                       |
| 5.01                                                        | General Provisions                                                                      | 1 through 2                |
| 5.02                                                        | Adoption of National Emission Standards for Hazardous Air Pollutants                    | 1 and 4.87                 |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant  | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                  | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                    | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                         |                            |

**Equipment** <sup>113</sup>

| <b>Emission Point</b> | <b>Description</b>                                                                                            | <b>Install Date</b> | <b>Applicable Regulations</b>       | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|---------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------------|-------------------|-------------------|
| IA01-1                | One AP3 Nylon Heater rated at 0.9 MMBtu/hr                                                                    | 1974                | STAR,<br>40 CFR 63,<br>Subpart DDDD | N/A               | N/A               |
| IA01-6                | (>50) Indirect-fired Hot Water heaters located throughout the plant all less than 1.0 MMBtu/hr <sup>114</sup> | unk                 | STAR                                | N/A               | N/A               |
| IA01-7                | Three 0.1 MMBtu/hr: Sterling QVEF heater (Indirect Fired Space/comfort heaters) <sup>114</sup>                | unk                 |                                     | N/A               | N/A               |
| IA01-8                | Seven 0.2 MMBtu/hr: Sterling QVEF heater (Indirect Fired Space/comfort heaters) <sup>114</sup>                | unk                 |                                     | N/A               | N/A               |
| IA01-9                | Fifteen 0.25 MMBtu/hr: Sterling QVEF heater (Indirect Fired Space/comfort heaters) <sup>114</sup>             | unk                 |                                     | N/A               | N/A               |
| IA01-10               | Nine 0.3 MMBtu/hr: Sterling QVEF heater (Indirect Fired Space/comfort heaters) <sup>114</sup>                 | unk                 |                                     | N/A               | N/A               |
| IA01-11               | Eleven 0.4 MMBtu/hr: Sterling QVEF heater (Indirect Fired Space/comfort heaters) <sup>114</sup>               | unk                 |                                     | N/A               | N/A               |
| IA01-12               | Three 0.03 MMBtu/hr: Qmark MUH-10-41 (10 kW) (Indirect Fired Space/comfort heaters) <sup>114</sup>            | unk                 |                                     | N/A               | N/A               |
| IA01-13               | Five 0.125 MMBtu/hr heater (Indirect Fired Space/comfort heaters) <sup>114</sup>                              | unk                 |                                     | N/A               | N/A               |
| IA01-14               | Thirteen 0.3 MMBtu/hr heater (Indirect Fired Space/comfort heaters) <sup>114</sup>                            | unk                 |                                     | N/A               | N/A               |

<sup>113</sup> Per STAR Regulation 5.21, Section 2.7 the TAC emissions from the combustion of natural gas are *de minimis* by definition.

<sup>114</sup> These are not process heaters and are not subject to 40 CFR 63 Subpart DDDDD, they are less than 1 MMBtu/hr and not subject to Regulation 7.06. They are *de minimis* for STAR as they are natural gas combustion according to Regulation 5.21, section 2.7.

## IA01 Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. HAP

- i. The owner or operator of a new or reconstructed boiler or process heater must comply with 40 CFR 63 Subpart DDDDD by April 1, 2013, or upon startup of your boiler or process heater, whichever is later.<sup>115</sup>  
[40 CFR 63.7495(a)]
- ii. The owner or operator must meet each work practice standard in Table 3 to 40 CFR 63 Subpart DDDDD that applies to your boiler or process heater, for each boiler or process heater.
- iii. At all times, the owner or operator 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. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.7500(a)(3)]
- iv. Boilers and process heaters in the units designated to burn gas 1 fuels subcategory with a heat input capacity of less than or equal to 5 million Btu per hour must complete a tune-up every 5 years as specified in 40 CFR 63.7540. Boilers and process heaters in the units designated to burn gas fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to this subpart, or the operating limits in Table 4 to this subpart. [40 CFR 63.7500(e)]
- v. The owner or operator must be in compliance with the emission limits, work practice standards, and operating limits in 40 CFR 63 Subpart DDDDD. These limits apply to you at all times the affected unit is operating except for the periods noted in 40 CFR 63.7500(f). [40 CFR 63.7505(a)]
- vi. For new or reconstructed affected sources, the owner or operator must demonstrate initial compliance with the applicable work practice standards in Table 3 to this subpart within the applicable 5-year schedule as specified in 40 CFR 63.7515(d) following the initial compliance date, April 1, 2013, or upon startup of the boiler or process heater, whichever is later. Thereafter,

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<sup>115</sup> New or reconstructed boilers or process heaters include Emission Points: IA01-1 through IA01-4.

you are required to complete the applicable annual, biennial, or 5-year tune-up as specified in 40 CFR 63.7515(d). [40 CFR 63.7510(g)]

- vii. The owner or operator must conduct a 5-year performance tune-up according to 40 CFR 63.7540(a)(12). Each 5-year tune-up specified in 40 CFR 63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed affected source, the first 5-year tune-up must be no later than 61 months after April 1, 2013 or the initial startup of the new or reconstructed affected source. [40 CFR 63.7515(d)]

**b. NO<sub>x</sub>**

- i. See Plantwide Standards NO<sub>x</sub> section.

**c. TAC**

- i. See Plantwide Standards TAC section.

**S2. Monitoring and Record Keeping**

[Regulation 2.16, sections 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

**a. HAP**

- i. The owner or operator shall maintain on-site and submit, if requested by the Administrator a report containing the information in 40 CFR 63.7540(a)(10)(vi)(A) through (C). [40 CFR 63.7540(a)(10)(vi)]
  - (1) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater; and [40 CFR 63.7540(a)(10)(vi)(A)]
  - (2) A description of any corrective action taken as a part of the tune-up. [40 CFR 63.7540(a)(10)(vi)(B)]
  - (3) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. [40 CFR 63.7540(10)(vi)(C)]
- ii. The owner or operator must keep a copy of each notification and report that you submitted to comply with 40 CFR 63 Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of

Compliance Status or compliance report that you submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv).<sup>116</sup> [40 CFR 63.7555(a)(1)]

- iii. Records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1) and as specified in 40 CFR 63.10(b)(1) you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR 63.7560(a) & (b)]
  - iv. The owner or operator must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). You can keep the records off site for the remaining 3 years. [40 CFR 63.7560(c)]
- b. NO<sub>x</sub>**
- i. See Plantwide Monitoring and Record Keeping NO<sub>x</sub> section.
- c. TAC**
- i. See Plantwide Monitoring and Record Keeping TAC section.

### S3. Reporting

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition 14:

**a. HAP**

- i. Notifications
  - (1) *General.* The owner or operator shall submit to the Administrator all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified. [40 CFR 63.7545(a)]
  - (2) *Notification of Compliance Status.* The owner or operator shall submit a Notification of Compliance Status in accordance with 40 CFR 63.9(h)(2)(ii). [40 CFR 63.7545(e)]
  - (3) The owner or operator must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in 40 CFR 63.7545(e). [40 CFR 63.7530(f)]

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<sup>116</sup> GE Submitted an initial notification for 40 CFR 63 Subpart DDDDD on May 2, 2013.

- ii. *Compliance reports.* The owner or operator shall submit compliance reports containing the information prescribed in 40 CFR 63.7550(c)(5) as applicable by the date(s) prescribed in 40 CFR 63.7550(b).
  - iii. *Submittal of required reports.* The owner or operator shall submit all reports required under 40 CFR 63 Subpart DDDDD in accordance with the procedures prescribed in 40 CFR 63.7550(h)(1) through (3), as applicable. [40 CFR 63.7550(h)]
- b. NO<sub>x</sub>**
- i. See Plantwide Reporting NO<sub>x</sub> section.
- c. TAC**
- i. See Plantwide Reporting TAC section.

**Emission Unit IA02: IA Regulation 7.25 Process Equipment****Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                                          |                            |
|------------------------------------------|--------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                                             | <b>Applicable Sections</b> |
| 7.25                                     | Standard of Performance for New Sources Using Volatile Organic Compounds | 1 through 5                |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                         |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                            | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                             | 1, 2                       |
| 5.01                                                        | General Provisions                                                                      | 1 through 2                |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant  | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                  | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                    | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                         |                            |

**Equipment** <sup>117</sup>

| <b>Emission Point</b> | <b>Description</b>                                                                                                                      | <b>Install Date</b> | <b>Applicable Regulations</b> | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------|-------------------|-------------------|
| IA02-1                | Cleaner and Lubricant Use for new Bottom Mount Assembly Operation (Regulation 7.25 non –BACT process)                                   | unk                 | STAR,<br>7.25                 | N/A               | N/A               |
| IA02-5                | Stainless Dishwasher Steel Tub Assembly (Regulation 7.25 non –BACT process)                                                             | unk                 |                               | N/A               | N/A               |
| IA02-6                | Dishwasher Door Mastic Application (Regulation 7.25 non –BACT process)                                                                  | unk                 |                               | N/A               | N/A               |
| IA02-7                | Tub Top and Bottom Mastic Application (Regulation 7.25 non –BACT process)                                                               | unk                 |                               | N/A               | N/A               |
| IA02-8                | Tub Wrap Mastic Application (Regulation 7.25 non –BACT process)                                                                         | unk                 |                               | N/A               | N/A               |
| IA02-9                | AP1 RTV Silicone Station (Regulation 7.25 non –BACT process)                                                                            | unk                 |                               | N/A               | N/A               |
| IA02-10               | Two Pad Printing (Regulation 7.25 non –BACT process)                                                                                    | unk                 |                               | N/A               | N/A               |
| IA02-12               | Small Freezer Door Foaming Operation (Regulation 7.25 non –BACT process)                                                                | unk                 |                               | N/A               | N/A               |
| IA02-13               | Aerosol spray adhesive usage in the warehouse for replacing loose labels on boxes prior to shipping (Regulation 7.25 non –BACT process) | unk                 |                               | N/A               | N/A               |
| IA02-15               | AP2 Metallic PP Pretreatment Washing Tunnel (Regulation 7.25 non –BACT process)                                                         | unk                 |                               | N/A               | N/A               |

<sup>117</sup> Per STAR Regulation 5.21, Section 2.7 the TAC emissions from the combustion of natural gas are *de minimis* by definition.

| <b>Emission Point</b> | <b>Description</b>                                                                                                                                  | <b>Install Date</b> | <b>Applicable Regulations</b> | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------|-------------------|-------------------|
| IA02-16               | MEK Quality Test Metallic Powder Painted Parts (AP2)<br>(Regulation 7.25 non –BACT process)                                                         | unk                 |                               | N/A               | N/A               |
| IA02-17               | Three Ultrasonic Cleaner for Powder Paint Tools<br>(Regulation 7.25 non –BACT process)                                                              | unk                 |                               | N/A               | N/A               |
| IA02-18               | Ten Touch-up Paints and Adhesives not subject to 40 CFR 63, Subpart NNNN<br>(Regulation 7.25 non –BACT process)                                     | unk                 |                               | N/A               | N/A               |
| IA02-19               | HA Drum Fabrication Lubricant<br>(Regulation 7.25 non –BACT process)                                                                                | unk                 |                               | N/A               | N/A               |
| IA02-20               | Swedging/Cutting Lubricant application<br>(Regulation 7.25 non –BACT process)                                                                       | unk                 |                               | N/A               | N/A               |
| IA02-21               | Evaporator De-Fin Lubricant application<br>(Regulation 7.25 non –BACT process)                                                                      | unk                 |                               | N/A               | N/A               |
| IA02-22               | Waste water Treatment plant consisting of two clarifiers, two filter presses, chemicals, and a skimmer (IA02)<br>(Regulation 7.25 non-BACT process) | unk                 |                               | N/A               | N/A               |
| IA02-23               | Solvent-based Ultrasonic Cleaner AP5                                                                                                                | unk                 |                               | N/A               | N/A               |
| IA02-24               | Soil or groundwater remediation System                                                                                                              | unk                 |                               | N/A               | N/A               |
| IA02-25               | Tri-Flow lubricant for Die Maintenance<br>(Regulation 7.25 non –BACT process)                                                                       | unk                 |                               | N/A               | N/A               |

| <b>Emission Point</b> | <b>Description</b>                                                                                                                      | <b>Install Date</b> | <b>Applicable Regulations</b> | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------|-------------------|-------------------|
| IA02-26               | Bumper repair using Loctite Prism 401 adhesive or similar material, Lines 7, 8, 9 <sup>118</sup><br>(Regulation 7.25 non –BACT process) | unk                 |                               | N/A               | N/A               |
| IA02-27               | AP5 Fresh Food Door-in-Door Foaming<br>(Regulation 7.25 non –BACT process)                                                              | unk                 |                               | N/A               | N/A               |
| IA02-28               | AP1 Laundry Stamping: Aida and CMI Presses, Draw-Clean 660 usage<br>(Regulation 7.25 non –BACT process)                                 | unk                 |                               | N/A               | N/A               |
| IA02-29               | AP4 Injection molding – Mold release, cleaner, and preventatives usage (aerosol spray cans)<br>(Regulation 7.25 non –BACT process)      | unk                 |                               | N/A               | N/A               |
| IA02-30               | AP10 Contractor Package regluing<br>(Regulation 7.25 non –BACT process)                                                                 | unk                 |                               | N/A               | N/A               |
| IA02-31               | AP1, lines 7 and 8 Capacitor lubricant for ergonomics<br>(Regulation 7.25 non –BACT process)                                            | unk                 |                               | N/A               | N/A               |
| IA02-32               | Markforged ‘Metal X’ 3D Printer                                                                                                         | 2019                |                               | STAR, 7.25        | N/A               |
| IA02-33               | Markforged ‘Wash-1’ washer/debinder                                                                                                     | 2019                | N/A                           |                   | N/A               |
| IA02-34               | Markforged ‘Sinter-1’ sintering oven                                                                                                    | 2019                | N/A                           |                   | N/A               |
| IA02-35               | Four Quality Scan spray booths for dimensional verification                                                                             | 2020                | N/A                           |                   | N/A               |

<sup>118</sup> General Electric Appliances submitted a PTE justifying designation of this operation as an insignificant activity based on emissions from Loctite Prism 401 adhesive. Other similar adhesives may be substituted for the convenience of GEA if total emissions from this source are not increased.

## IA02 Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. TAC

- i. See Plantwide Standards TAC section.<sup>119</sup>

#### b. VOC

- i. The owner or operator shall not allow or cause the emissions of VOC from equipment subject to Regulation 7.25 plantwide for emission points that do not have a BACT limit or a banking limit to exceed 5 tons during any consecutive 12-month period.<sup>120</sup> [Regulation 7.25, section 5.1]
- ii. See Plantwide Standards VOC section.

### S2. Monitoring and Record Keeping

[Regulation 2.16, sections 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

#### a. TAC

- i. See Plantwide Monitoring and Record Keeping TAC section.

#### b. VOC

- i. The owner or operator shall monthly calculate and record the monthly and twelve consecutive month combined VOC emissions from all emission points covered by the less than 5 tons per year non-BACT limit.
- ii. See Plantwide Monitoring and Record Keeping VOC section.

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<sup>119</sup> Per STAR Regulation 5.21, Section 2.3 the TAC emissions from insignificant activities are *de minimis* by definition.

<sup>120</sup> Equipment subject to the plantwide 5 ton per year VOC emission limit in Regulation 7.25 are U311 AP3-311; U500 EP-500(a & b); U149 touch-up painting; U150 touch-up painting; U530 EP-IA8; and Insignificant Activities that are noted in the Insignificant Activity Table as *Regulation 7.25 non-BACT process IA02*.

**S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition 14:

**a. TAC**

- i. See Plantwide Reporting TAC section.

**b. VOC**

- i. The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports:
  - (1) Identification of all periods of exceedances of the VOC limit including the quantity of excess emissions.
  - (2) Reason for excess emissions.
  - (3) Description of corrective action taken to prevent future exceedances.
- ii. See Plantwide Reporting VOC section.

**Emission Unit IA03: IA Regulation 7.08 Process Equipment****Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                     |                            |
|------------------------------------------|-----------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                        | <b>Applicable Sections</b> |
| 7.08                                     | Standards of Performance for New Process Operations | 1 through 3                |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                         |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                            | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                             | 1, 2                       |
| 5.01                                                        | General Provisions                                                                      | 1 through 2                |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant  | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                  | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                    | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                         |                            |

**Equipment**<sup>121</sup>

| <b>Emission Point</b> | <b>Description</b>                                                      | <b>Install Date</b> | <b>Applicable Regulations</b> | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|-------------------------------------------------------------------------|---------------------|-------------------------------|-------------------|-------------------|
| IA03-1                | Sixty Brazing, soldering, or welding equipment (Regulation 7.08)        | unk                 | STAR,<br>7.08                 | N/A               | N/A               |
| IA03-2                | Pedestal Plastic Re grinder (Regulation 7.08)                           | unk                 |                               | N/A               | N/A               |
| IA03-5                | Brazing, Soldering or Welding on Nylon Wire Rack Line (Regulation 7.08) | unk                 |                               | N/A               | N/A               |
| IA03-6                | Nylon powder transfer/clean-up activities (Regulation 7.08)             | unk                 |                               | N/A               | N/A               |

<sup>121</sup> Per STAR Regulation 5.21, Section 2.7, the TAC emissions from the combustion of natural gas are de minimis by definition.

| <b>Emission Point</b> | <b>Description</b>                                                                                                                                                                                                                                                                                         | <b>Install Date</b> | <b>Applicable Regulations</b> | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------|-------------------|-------------------|
| IA03-7                | Pellet Grinder and process cyclone make Granutec G3030 (Regulation 7.08)                                                                                                                                                                                                                                   | unk                 |                               | N/A               | N/A               |
| IA03-8                | Grinding operation for the AP3 Ash White Tub Re-grinder (Regulation 7.08)                                                                                                                                                                                                                                  | unk                 |                               | N/A               | N/A               |
| IA03-9                | Ten Small Re-grinders in AP4 used to recycle plastic (Regulation 7.08)                                                                                                                                                                                                                                     | unk                 |                               | N/A               | N/A               |
| IA03-10               | Small Re-grinders in AP5 used to recycle plastic (Regulation 7.08)                                                                                                                                                                                                                                         | unk                 |                               | N/A               | N/A               |
| IA03-11               | Unloading, Conveyance and Storage of Plastic Pellets in AP1 (Regulation 7.08)                                                                                                                                                                                                                              | unk                 |                               | N/A               | N/A               |
| IA03-12               | Unloading, Conveyance and Storage of Plastic Pellets in AP3 (Regulation 7.08)                                                                                                                                                                                                                              | unk                 |                               | N/A               | N/A               |
| IA03-13               | Unloading, Conveyance and Storage of Plastic Pellets in AP4 (Regulation 7.08)                                                                                                                                                                                                                              | unk                 |                               | N/A               | N/A               |
| IA03-14               | Unloading, Conveyance and Storage of Plastic Pellets in AP5 (Regulation 7.08)                                                                                                                                                                                                                              | unk                 |                               | N/A               | N/A               |
| IA03-15               | Thirteen Cooling towers:<br>(Regulation 7.08)<br>AP-1 Front Tower<br>AP-2 Rear Tower<br>AP-2 Front Tower<br>AP-2 Outlying Tower<br>AP-3 North Tower<br>AP-4 South Tower<br>AP-4 Front Tower<br>AP-4 Plastics Tower<br>AP-5 Plastics Tower<br>AP-5 Front Tower<br>AP-20 Tower<br>AP-32 Tower<br>AP-33 Tower | unk                 |                               | N/A               | N/A               |
| IA03-17               | Two Sanding process to scuff-sand defective painted parts on downdraft table with cartridges (Regulation 7.08)                                                                                                                                                                                             | unk                 |                               | N/A               | N/A               |

| <b>Emission Point</b> | <b>Description</b>                                       | <b>Install Date</b> | <b>Applicable Regulations</b> | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|----------------------------------------------------------|---------------------|-------------------------------|-------------------|-------------------|
| IA03-18               | Two Hot Plate Welding of Plastic Parts (Regulation 7.08) | unk                 |                               | N/A               | N/A               |
| IA03-19               | Central Vacuum System for AP1                            | unk                 |                               | N/A               | N/A               |
| IA03-20               | Central Vacuum System for AP2                            | unk                 |                               | N/A               | N/A               |

## IA03 Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. Opacity

- i. The owner or operator shall not cause to be discharged into the atmosphere from any affected facility (for each emission point listed in this emission unit) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is equal to or greater than 20% opacity.<sup>122</sup> [Regulation 7.08, section 3.1.1]

#### b. PM

- i. The owner and operator shall not cause to be discharged into the atmosphere from any affected facility (for each emission point listed in this emission unit) or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is in excess of 2.34 lbs/hr based on actual operating hours in a calendar day.<sup>123</sup> [Regulation 7.08, section 3.1.2]

#### c. TAC

- i. See Plantwide Standards TAC section.<sup>124</sup>

### S2. Monitoring and Record Keeping

[Regulation 2.16, sections 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

#### a. Opacity

- i. There are no monitoring or record keeping requirements.

#### b. PM

- i. There are no monitoring or record keeping requirements.

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<sup>122</sup> The District has determined that no periodic visible emissions surveys are required for this emission unit.

<sup>123</sup> A one-time compliance demonstration has been performed and the lb/hr PM emission standard should be met uncontrolled.

<sup>124</sup> Per STAR Regulation 5.21, Section 2.3 the TAC emissions from insignificant activities are *de minimis* by definition.

**c. TAC**

- i. See Plantwide Monitoring and Record Keeping TAC section.

**S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition 14:

**a. Opacity**

- i. There are no compliance reporting requirements for this equipment.

**b. PM**

- i. There are no compliance reporting requirements for this equipment.

**c. TAC**

- i. See Plantwide Reporting TAC section.

### Emission Unit IA04 (U89): VOC Storage Tanks

#### Applicable Regulations

| DISTRICT ONLY ENFORCEABLE REGULATIONS                       |                                                                                         |                     |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------|
| Regulation                                                  | Title                                                                                   | Applicable Sections |
| 5.00                                                        | Definitions                                                                             | 1, 2                |
| 5.01                                                        | General Provisions                                                                      | 1 through 2         |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant  | 1 through 6         |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                  | 1 through 5         |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5         |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                    | 1 through 6         |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                         |                     |

#### Equipment <sup>125</sup>

| Emission Point | Description                                                                                                                                                                    | Install Date | Applicable Regulations | Control ID | Release ID |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------------------|------------|------------|
| IA Tank 1      | Generator Tank; 2500 gallons                                                                                                                                                   | unknown      | STAR                   | N/A        | N/A        |
| IA Tank 2      | Generator Tank; 10,000 gallons                                                                                                                                                 | unknown      |                        | N/A        | N/A        |
| IA Tank 3      | Generator Tank; 10,000 gallons                                                                                                                                                 | unknown      |                        | N/A        | N/A        |
| IA Tank 4      | Generator Tank; 2859 gallons                                                                                                                                                   | unknown      |                        | N/A        | N/A        |
| IA Tank 5      | Generator Tank; 2859 gallons                                                                                                                                                   | unknown      |                        | N/A        | N/A        |
| IA Tank 6      | Underground Storage Tank (UST); 6000 gallons                                                                                                                                   | unknown      |                        | N/A        | N/A        |
| IA Tank 7      | Seven Hydraulic Oil Storage Tanks:<br>1 - 6000 gallon,<br>1 - 2000 gallon (used oil),<br>2 - 15,000 gallon,<br>1 - 25,000 gallon (used oil);<br>2 - 10,000 gallon (1-used oil) | unknown      |                        | N/A        | N/A        |
| IA Tank 8      | Twelve Compressor Oil Tanks:<br>3 - 10,000 gallon;<br>9 - 550 gallon                                                                                                           | unknown      |                        | N/A        | N/A        |

<sup>125</sup> All of the insignificant activity storage tanks, noted as “IA Tank #” are *de minimis* with respect to STAR per Regulation 5.21, section 2.3.

| <b>Emission Point</b> | <b>Description</b>                                                              | <b>Install Date</b> | <b>Applicable Regulations</b> | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|---------------------------------------------------------------------------------|---------------------|-------------------------------|-------------------|-------------------|
| IA Tank 9             | Three Lubricating Oil Tanks,<br>each 1000 gallons                               | unknown             |                               | N/A               | N/A               |
| IA Tank 10            | Three Used Oil Tanks:<br>1 - 550 gallon,<br>1 - 1000 gallon,<br>1 - 2000 gallon | unknown             |                               | N/A               | N/A               |

**IA04 (U89) Specific Conditions****S1. Standards**

[Regulation 2.16, section 4.1.1]

**a. TAC**

- i. See Plantwide Standards TAC section.<sup>126</sup>

**S2. Monitoring and Record Keeping**

[Regulation 2.16, sections 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

**a. TAC**

- i. See Plantwide Monitoring and Record Keeping TAC section.

**S3. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition 14:

**a. TAC**

- i. See Plantwide Reporting TAC section.

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<sup>126</sup> Per STAR Regulation 5.21, Section 2.3, TAC emissions from insignificant activities are *de minimis* by definition.

**Emission Unit IA05:  
Combustion sources not accounted for in any other emission unit**

**Applicable Regulations**

| <b>FEDERALLY ENFORCEABLE REGULATIONS</b> |                                                        |                            |
|------------------------------------------|--------------------------------------------------------|----------------------------|
| <b>Regulation</b>                        | <b>Title</b>                                           | <b>Applicable Sections</b> |
| 2.05                                     | Prevention of Significant Deterioration of Air Quality | 1                          |

| <b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>                |                                                                                         |                            |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------|
| <b>Regulation</b>                                           | <b>Title</b>                                                                            | <b>Applicable Sections</b> |
| 5.00                                                        | Definitions                                                                             | 1, 2                       |
| 5.01                                                        | General Provisions                                                                      | 1 through 2                |
| 5.20                                                        | Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant  | 1 through 6                |
| 5.21                                                        | Environmental Acceptability for Toxic Air Contaminants                                  | 1 through 5                |
| 5.22                                                        | Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant | 1 through 5                |
| 5.23                                                        | Categories of Toxic Air Contaminants                                                    | 1 through 6                |
| STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 |                                                                                         |                            |

**Equipment** <sup>127</sup>

| <b>Emission Point</b> | <b>Description</b>                                                                             | <b>Install Date</b> | <b>Applicable Regulations</b> | <b>Control ID</b> | <b>Release ID</b> |
|-----------------------|------------------------------------------------------------------------------------------------|---------------------|-------------------------------|-------------------|-------------------|
| IA05-1                | 2.0 MMBtu/hr AP1 Make Up Air Heater, Maxon 2.0 APX Line Burner (Direct fired unit)             | unk                 | STAR,<br>2.05                 | N/A               | N/A               |
| IA05-2                | Three 0.757 MMBtu/hr: Cambridge S800 direct fired heat exchangers (Space/comfort heaters)      | unk                 |                               | N/A               | N/A               |
| IA05-3                | Two 0.400 MMBtu/hr: Cambridge S400 direct fired heat exchangers (Space/comfort heaters)        | unk                 |                               | N/A               | N/A               |
| IA05-4                | Six 1.2 MMBtu/hr: Cambridge S1200 direct fired heat exchanger (Space/comfort heaters)          | unk                 |                               | N/A               | N/A               |
| IA05-5                | Twelve 1.499 MMBtu/hr: Cambridge S1600 direct fired heat exchanger (Space/comfort heaters)     | unk                 |                               | N/A               | N/A               |
| IA05-6                | Three 2.2 MMBtu/hr: Cambridge S2200 direct fired heat exchanger (Space/comfort heaters)        | unk                 |                               | N/A               | N/A               |
| IA05-7                | Forty-five 3.107 MMBtu/hr: Cambridge S3200 direct fired heat exchanger (Space/comfort heaters) | unk                 |                               | N/A               | N/A               |
| IA05-8                | Five 5.887 MMBtu/hr: Cambridge M136 direct fired heat exchanger (Space/comfort heaters)        | unk                 |                               | N/A               | N/A               |
| IA05-9                | One 7 MMBtu/hr natural gas dryoff oven (Direct fired Unit)                                     | unk                 |                               | N/A               | N/A               |
| IA05-10               | One HA Gas Dryer Test Loop                                                                     | unk                 |                               | N/A               | N/A               |
| IA05-11               | Two Abrade Systems Direct-fired natural gas burners at 140,000 Btu/hr each, AP3                | 2018 <sup>128</sup> |                               | N/A               | N/A               |

<sup>127</sup> Natural gas combustion is *de minimis* for STAR by definition. [Regulation 5.21, section 2.7]

<sup>128</sup> IA approval letter sent August 23, 2018, document #17745.

## IA05 Specific Conditions

### S1. Standards

[Regulation 2.16, section 4.1.1]

#### a. NO<sub>x</sub>

- i. See Plantwide Standards NO<sub>x</sub> section.

#### b. TAC

- i. See Plantwide Standards TAC section.<sup>129</sup>

### S2. Monitoring and Record Keeping

[Regulation 2.16, sections 4.1.9.1 and 4.1.9.2]

The owner or operator shall maintain the required records for a minimum of 5 years and make the records readily available to the District upon request.

#### a. NO<sub>x</sub>

- i. See Plantwide Monitoring and Record Keeping NO<sub>x</sub> section.

#### b. TAC

- i. See Plantwide Monitoring and Record Keeping TAC section.

### S3. Reporting

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition 14:

#### a. NO<sub>x</sub>

- i. See Plantwide Reporting NO<sub>x</sub> section.

#### b. TAC

- i. See Plantwide Reporting TAC section.

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<sup>129</sup> Natural gas combustion is *de minimis* for STAR by definition. [Regulation 5.21, section 2.7]

**Appendix A - NO<sub>x</sub> RACT Plan**<sup>130</sup>**NO<sub>x</sub> RACT Plan - Amendment 1**

1. The oxides of nitrogen (NO<sub>x</sub>, expressed as NO<sub>2</sub>) emission from each of Boiler #6<sup>131</sup> and Boiler #7<sup>132</sup> shall not exceed 0.20 pound per million Btu of heat input.
2. If either of Boiler #6<sup>131</sup> or Boiler #7<sup>132</sup> has a seasonal capacity factor greater than 15.0%, then GE Appliances shall, prior to operating that boiler during any subsequent ozone control season, conduct a performance test for NO<sub>x</sub> for that boiler in conformance with the requirements of NO<sub>x</sub> RACT Plan Element (Element) No. 5. GE Appliances shall conduct a performance test for NO<sub>x</sub> for Boiler #6 in conformance with the requirements of Element No. 5 prior to May 1, 2001.
3. As used in this NO<sub>x</sub> RACT Plan, the term “seasonal capacity factor” means the ratio between the actual heat input to a boiler from fuel combusted during the period May 1 through September 30 (ozone control season) and the potential heat input to the boiler had it been operated for 24 hours per day for each day during the ozone control season at the maximum steady state design heat input capacity. The maximum heat input capacity provided by the manufacturer shall be used unless GE Appliances determines the maximum heat input capacity using the heat loss method described in sections 5 and 7.3 of the ASME *Power Test Codes* 4.1.
4. If a boiler is required to conduct a performance test in two consecutive years and if the requirements of Regulation 6.42 *Reasonably Available Control Technology Requirements for Major Volatile Organic Compound- and Nitrogen Oxides-Emitting Facilities* section 5.1 are met, and subject to the annual performance test schedule reinstatement provision, then subsequent performance testing may be done on a biennial schedule.
5. Performance testing shall meet the following requirements:
  - A. Emissions concentrations and the mass determinations shall be obtained using Reference Methods of 40 CFR Part 60 Appendix A. The following methods shall be used:
    - (1) Method 1 or 1A, which furnishes guidance in site and traverse selection for sampling velocity at traverse points in stationary sources,
    - (2) Method 2, 2A, 2B, 2C, 2D, 2E, 2F, 2G, or 2H, which applies to measurements of gas volumetric flow rates,

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<sup>130</sup> The NO<sub>x</sub> limit of less than 100 tons per year, plantwide, is a PSD and NO<sub>x</sub> RACT avoidance limit taken in Construction Permit 33318-11-C. Section 15 of the attached NO<sub>x</sub> RACT Plan authorizes the District to add other NO<sub>x</sub> requirements as long as they are federally enforceable. All other sections of the NO<sub>x</sub> RACT Plan are no longer applicable as the all coal fired boilers have been either removed or disabled.

<sup>131</sup> Notification was given on February 12, 2019 that boiler #6 has been removed from operation.

<sup>132</sup> Notification was given on September 25, 2008 that boiler #7 has been removed from operation.

- (3) Method 3, 3A, 3B, or 3C, which is applicable for determining the concentrations of one or more of the following gases: carbon dioxide, O<sub>2</sub>, CO, nitrogen, and methane,
    - (4) Method 4, which determines the moisture content in stack gases, and
    - (5) Method 7, 7A, 7B, 7C, 7D, or 7E, which provides the analytical method for determining the concentration of NO<sub>x</sub> emissions from stationary sources.
  - B. The use of other Reference Methods that are added to 40 CFR Part 60 Appendix A, alternative tests, or modifications to the Reference Methods listed in Element No. 5.A. may be proposed by GE Appliances as part of the testing plan required by Element No. 5.D. Such methods may be used if approved in writing by the District.
  - C. Performance testing shall meet the requirements of Regulation 1.04 Performance Tests that are not addressed in this Element.
  - D. A notification of intent to conduct a performance test shall be submitted to the District at least 25 working days in advance of the projected starting date for the performance test. The notification shall include the proposed test methods to be used. A Protocol Checklist is listed in Appendix E which contains the information to be submitted in the protocol.
  - E. If a pre-test conference to discuss the proposed test methods is deemed necessary by the District, a pre-test conference shall be arranged by District personnel.
  - F. At least 10 working days' prior notice of the scheduled starting date for the performance test shall be provided to the District.
  - G. A performance test report shall be submitted to the District within 60 days of completion of performance testing. The report shall include the calculations used to determine emissions. The NO<sub>x</sub> emission rate shall be expressed in both pounds per hour and pounds per million Btu formats. The raw data shall be retained by GE Appliances for a minimum of 5 years and made available to the District upon request. Selected portions of the raw data used to calculate the emissions shall be included in the report in a format provided by the District.
6. Each boiler of the group Boiler #1, Boiler #2, Boiler #3, Boiler #4, and Boiler #5 shall comply with one of the following options:<sup>133</sup>
  - A. Option 1: The boiler shall not have a seasonal capacity factor greater than 10.0%.
  - B. Option 2: The NO<sub>x</sub> (expressed as NO<sub>2</sub>) emission from the boiler shall not exceed 0.70 pound per million Btu of heat input.
7. GE Appliances shall, before March 1, 2001, notify the District in writing as to which option will be applicable to each of Boiler #1, Boiler #2, Boiler #3, Boiler #4, and Boiler #5 starting March 1, 2001. If GE Appliances decides to switch from the initial option for a boiler, then GE Appliances shall notify the District in writing, before the date of implementing the other option, of its decision to switch to that option for that boiler.

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<sup>133</sup> Boilers #1, #2, #3, #4, and #5 have been removed or permanently disabled.

8. If any boiler of the group Boiler #1, Boiler #2, Boiler #3, Boiler #4, and Boiler #5 has a seasonal capacity factor greater than 10.0%, then GE Appliances shall, prior to operating that boiler during any subsequent ozone control season, conduct a performance test for NO<sub>x</sub> for that boiler in conformance with the requirements of Element No. 5. If a performance test is required for a boiler in two consecutive years and if the requirements of Regulation 6.42 *Reasonably Available Control Technology Requirements for Major Volatile Organic Compound- and Nitrogen Oxides-Emitting Facilities* section 5.1 are met, and subject to the annual performance test schedule reinstatement provision, then subsequent performance testing may be done on a biennial schedule.
9. GE Appliances shall make a record of the type, heat content, and amount of fuel combusted during each day of operation during the ozone control season of each boiler included in this NO<sub>x</sub> RACT Plan. GE Appliances shall, at the end of each month during the ozone control season, calculate and record for each boiler its seasonal capacity factor. Each record shall be maintained for a minimum of 5 years and made available to the District upon request.
10. GE Appliances shall, within 12 months prior to the beginning of the ozone control season or prior to operating Boiler #6 during the ozone control season, perform and undertake corrections as necessary, and make a record of the following boiler maintenance activities:
  - A. Inspect, and either tighten or replace, the seals in the air passage to eliminate visible gaps,
  - B. Inspect burner ring,
  - C. Inspect refractory, remove any residue present, and make repairs necessary to create a smooth wall surface,
  - D. Inspect and blow sensing lines on the LFG pressure regulator, and
  - E. Inspect and check BMS electronic combustion control circuit board and terminal connections.
11. If all of the boilers of the group Boiler #1, Boiler #2, Boiler #3, Boiler #4, and Boiler #5 are operating under Option 1 of Element No. 6, then GE Appliances shall, before May 1 of each year, notify the District in writing as to which boiler of this group will be the designated primary backup boiler for that year's ozone control season. Additionally, GE Appliances shall, within 12 months prior to the beginning of the ozone control season or prior to operating the designated backup boiler during the ozone control season, perform and undertake corrections as necessary, and make a record of the following boiler maintenance activities on the designated primary backup boiler:
  - A. Rebuilding the stoker mechanism,
  - B. Inspecting and either tightening or replacing the seals in the air passage to eliminate visible gaps,
  - C. Punching out all blocked grate holes,
  - D. Inspecting and repairing grate dampers as needed to make them fully functional,
  - E. Inspecting interior wall refractory and removing slag or making repairs necessary to create a smooth wall surface, or both,

- F. Removing slag from over-fire air nozzles,
  - G. Replacing any clogged over-fire air nozzles,
  - H. Inspecting and cleaning or repairing electronic combustion controls as needed to make them operational,
  - I. Cleaning heavy ash from louvers, induced draft fans, and forced air fans, and
  - J. Setting-up and balancing the rebuilt stoker mechanism to maximize boiler efficiency.
12. GE Appliances shall keep a record identifying all deviations from the requirements of this NO<sub>x</sub> RACT Plan and shall submit to the District a written report of all deviations that occurred during the preceding semi-annual period. Semi-annual periods shall run from January 1 to June 30 and July 1 to December 31. The report shall contain the following information:
- A. The boiler number,
  - B. The beginning and ending date of the reporting period,
  - C. Identification of all periods during which a deviation occurred,
  - D. A description, including the magnitude, of the deviation,
  - E. If known, the cause of the deviation, and
  - F. A description of all corrective actions taken to abate the deviation.
- If no deviation occurred during the semi-annual period, the report shall contain a negative declaration. Each report shall be submitted within 60 days following the end of the semi-annual period.
13. GE Appliances shall include in each report pursuant to Element No. 12 a summary of the boiler maintenance activities required by Elements No. 10 and 11 that occurred during the preceding semi-annual period.
14. GE Appliances shall, before May 1, 2001, submit to the District a written description of daily activities and procedures that may be conducted by the boiler operators to ensure proper operation of the boilers used during the ozone control season.
15. In lieu of the requirements in this NO<sub>x</sub> RACT Plan, GE Appliances may comply with alternative requirements regarding emission limitations, equipment operation, test methods, monitoring, record keeping, or reporting, provided the following conditions are met:
- A. The alternative requirements are established and incorporated into an operating permit pursuant to a Title V Operating Permit issuance, renewal, or significant permit revision process as established in Regulation 2.16,
  - B. The alternative requirements are consistent with the streamlining procedures and guidelines set forth in section II.A. of White Paper Number 2 for Improved

Implementation of the Part 70 Operating Permits Program, March 5, 1996, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. The overall effect of compliance with alternative requirements shall consider the effect on an intrinsic basis, such as pounds per million Btu,

- C. The U.S. Environmental Protection Agency (EPA) has not objected to the issuance, renewal, or revision of the Title V Operating Permit, and either
- D. If the public comment period preceded the EPA review period, then the District had transmitted any public comments concerning the alternative requirements to EPA with the proposed permit, or
- E. If the EPA and public comment periods ran concurrently, then the District had transmitted any public comments concerning the alternative requirements to EPA no later than 5 working days after the end of the public comment period.

The District's determination of approval of any alternative requirements is not binding on EPA. Noncompliance with any alternative requirement established pursuant to the Title V Operating Permit process constitutes a violation of this NO<sub>x</sub> RACT Plan.

History: Approved 11-8-99; effective 1-1-00; amended a1/1-17-01 effective 3-1-01.

### **Comment**

The company conducted a performance test for NO<sub>x</sub> for Boiler #6 on February 18, 2004, March 23, 2006, and April 3, 2008.

**Appendix B - 40 CFR 63 Subpart NNNN (MACT)****Specific Conditions****S1. Standards**

[Regulation 2.16, section 4.1.1]

**a. HAP**

- i. The owner or operator shall limit organic HAP emissions to the atmosphere to no more than 0.13 kilogram per liter (kg/liter) (1.1 pound per gallon (lb/gal)) of coating solids used during each compliance period.  
[40 CFR 63.4090(a)]

**S2. Monitoring**

[Regulation 2.16, section 4.1.9.1]

**a. HAP**

- i. The owner or operator shall monthly determine the mass fraction of organic HAP for each coating, thinner, and cleaning material used during the month using one of the following methods:  
[40 CFR 63.4152(a) & 40 CFR 63.4151(a)]
  - (1) Method 311 (appendix A to 40 CFR part 63)
    - (a) The owner or operator may use a Method 311 for determining the mass fraction of organic HAP using the following procedures: [40 CFR 63.4141(a)(1)]
      - (i) Count each organic HAP that is measured to be present at 0.1 percent by mass or more for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d) (4) and at 1.0 percent by mass or more for other organic HAP compounds. For example, if toluene (not an OSHA carcinogen) is measured to be 0.5 percent of the material by mass, you do not have to count it. Express the mass fraction of each organic HAP you count as a value truncated to four places after the decimal point (for example, 0.3791).  
[40 CFR 63.4141(a)(1)(i)]
      - (ii) Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point (for example, 0.763).  
[40 CFR 63.4141(a)(1)(ii)]

- (2) Method 24 (appendix A to 40 CFR part 60)
    - (a) For coatings, the owner or operator may use Method 24 to determine the mass fraction of non-aqueous volatile matter and use that value as a substitute for mass fraction of organic HAP. [40 CFR 63.4141(a)(2)]
  - (3) Alternative method
    - (a) The owner or operator may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has approved it. [40 CFR 63.4141(a)(3)]
  - (4) Information from the supplier or manufacturer of the material
    - (a) The owner or operator may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (3) of this section, such as manufacturer's formulation data if they represent each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d) (4) and at 1.0 percent by mass or more for other organic HAP compounds. For example, if toluene (not an OSHA carcinogen) is 0.5 percent of the material by mass, you do not have to count it. If there is a disagreement between such information and results of a test conducted according to paragraphs (a)(1) through (3) of this section, then the test method results will take precedence. [40 CFR 63.4141(a)(4)]
  - (5) Solvent blends
    - (a) Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which must be counted toward the total organic HAP mass fraction of the materials. When test data and manufacturer's data for solvent blends are not available, you may use the default values for mass fraction of organic HAP in these solvent blends listed in Table 3 or 4 of this subpart. If you use the tables, you must use the values in Table 3 for all solvent blends that match Table 3 entries, and you may only use Table 4 if the solvent blends in the materials you use do not match any of the solvent blends in Table 3, and you only know whether the blend is aliphatic or aromatic. However, if the results of a Method 311 test indicate higher values than those listed on Table 3 or 4 of 40 CFR 63 Subpart NNNN, the Method 311 results will take precedence. [40 CFR 63.4141(a)(5)]
- ii. The owner or operator must determine the volume fraction of coating solids (liters of coating solids per liter of coating) for each coating used during the

compliance period by a test, by information provided by the supplier or the manufacturer of the material, or by calculation on one of the following:  
[40 CFR 63.4141(b)]

- (1) ASTM Method D2697-86 (Reapproved 1998) or D6093-97
  - (a) The owner or operator may use ASTM Method D2697-86 (Reapproved 1998), "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings," or D6093-97, "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer" (see 40 CFR 63.14) to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids. [40 CFR 63.4141(b)(1)]
- (2) Information from the supplier or manufacturer of the material.
  - (a) The owner or operator may obtain the volume fraction of coating solids for each coating from the supplier or manufacturer. [40 CFR 63.4141(b)(2)]
- (3) Calculation of volume fraction of coating solids.
  - (a) If the volume fraction of coating solids cannot be determined using the options in paragraphs (b)(1) and (2) of this section, the owner or operator must determine the volume fraction of coating solids using Equation 1 of 40 CFR 63.4141(b)(3):

$$V_s = \left[ \frac{m_{volatiles}}{D_{avg}} \right] \quad \text{(Equation 1, 40 CFR 63.414(b)(3))}$$

Where:

- $V_s$  = volume fraction of coating solids, liters coating solids per liter coating.
- $m_{volatiles}$  = total volatile matter content of the coating, including HAP, volatile organic compounds (VOC), water, and exempt compounds, determined according to Method 24 in appendix A of 40 CFR part 60, grams volatile matter per liter coating.
- $D_{avg}$  = average density of volatile matter in the coating, grams volatile matter per liter volatile matter, determined from test results using ASTM Method D1475-98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (40 CFR 63.14) information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475-98 test results and other information

sources, the test results will take precedence.  
[40 CFR 63.4141(b)(3)]

- iii. Determine the density of each coating used during the month from test results using ASTM Method D1475-98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (40 CFR 63.14), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475-98 test results and other information sources, the test results will take precedence.  
[40 CFR 63.4141(c)]
- iv. Determine the organic HAP content, kg organic HAP per liter coating solids, of each coating used during the compliance period, using Equation 2 of 40 CFR 63.4141(d), except that if the mass fraction of organic HAP equals zero, then the organic HAP content also equals zero and you are not required to use Equation 2 to calculate the organic HAP content:  
[40 CFR 63.4141(d)]

$$H_c = (D_c)(W_c) / V_s \quad (\text{Equation 2, 40 CFR 63.414(d)})$$

Where:

- $H_c$  = organic HAP content of the coating, kg organic HAP per liter coating solids.
- $D_c$  = density of coating, kg coating per liter coating, determined according to paragraph (c) of this section.
- $W_c$  = mass fraction of organic HAP in the coating, kg organic HAP per kg coating, determined according to paragraph (a) of this section.
- $V_s$  = volume fraction of coating solids, liters coating solids per liter coating, determined according to paragraph (b) of this section.

### S3. Record Keeping

[Regulation 2.16, section 4.1.9.2]

#### a. HAP

- i. A copy of each notification and report that you submitted to comply with 40 CFR 63 Subpart NNNN and the documentation supporting each notification and report. [40 CFR 63.4130(a)]
- ii. A current copy of information provided by materials suppliers or manufacturers such as manufacturer's formulation data or test caused to determine the mass fraction of organic HAP and density for each coating, thinner, and cleaning material and the volume fraction of coating solids for

each coating. If you conducted testing to determine mass fraction of organic HAP, density, or volume fraction of coating solids, you must keep a copy of the complete test report. If you use information provided to you by the manufacturer or supplier of the material that was based on testing, you must keep the summary sheet of results provided to you by the manufacturer or supplier. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

[40 CFR 63.4130(b)]

- iii. For each month, a record of the time periods (beginning and ending dates and times) and the coating operations at which each compliance option (compliant material option, the emission rate without add-on controls option, or the emission rate with add-on controls option) was used and a record of all determinations of kg organic HAP per liter of coating solids for the compliance option(s) you used as specified below:

[40 CFR 63.4130(c)]

- (1) For the compliant material option:

- (a) A monthly record of the determination of the organic HAP content for each coating according to 40 CFR 63.4141(d).

[40 CFR 63.4130(c)(1)]

- (2) For the emission rate without add-on controls option:

- (a) A monthly record of the calculation of the total mass of organic HAP emissions for the coatings, thinners, and cleaning materials used each month, using Equations 1 and 1A through 1C of 40 CFR 63.4151 and, if applicable, the calculations used to determine the mass of organic HAP in waste materials according to 40 CFR 63.4151(e) (4); the calculation of the total volume of coating solids used each month, using Equation 2 of 63.4151; and the calculation of the organic HAP emission rate, using Equation 3 of 63.4151.

[40 CFR 63.4130(c)(2)]

- (i) Calculate the mass of organic HAP emission during the month: [40 CFR 63.4151(e)]

$$H_e = A + B + C - R_w \quad (\text{Equation 1, 40 CFR 63.4151})$$

Where:

$H_e$  = total mass of organic HAP emissions during the compliance period, kg.

$A$  = total mass of organic HAP in the coatings used during the compliance period, kg, as calculated in Equation 1A of this section.

- $B$  = total mass of organic HAP in the thinners used during the compliance period, kg, as calculated in Equation 1B.
- $C$  = total mass of organic HAP in the cleaning materials used during the compliance period, kg, as calculated in Equation 1C.
- $R_w$  = total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the compliance period, kg, determined according to 40 CFR 63.4151(e)(4). (You may assign a value of zero to  $R_w$  if you do not wish to use this allowance.)

- [1] Calculate the kg organic HAP in the coatings used during the month  
[40 CFR 63.4151(e)(1)]:

$$A = \sum_{i=1}^m (Vol_{c,i})(D_{c,i})(W_{c,i})$$

(Equation 1A, 40 CFR 63.4151)

Where:

- $A$  = total mass of organic HAP in the coatings used during the compliance period, kg.
- $Vol_{c,i}$  = total volume of coating,  $i$ , used during the compliance period, liters.
- $D_{c,i}$  = density of coating,  $i$ , kg coating per liter coating
- $W_{c,i}$  = mass fraction of organic HAP in coating,  $i$ , kg organic HAP per kg coating.
- $m$  = number of different coatings used during the compliance period.

- [2] Calculate the kg of organic HAP in the thinners used during the month  
[40 CFR 63.4151(e)(2)]:

$$B = \sum_{j=1}^n (Vol_{t,j})(Dt,j)(Wt,j)$$

(Equation 1B, 40 CFR 63.4151)

Where:

$B$  = total mass of organic HAP in the thinners used during the compliance period, kg.

$Vol_{t,j}$  = total volume of thinner, j, used during the compliance period, liters.

$D_{t,j}$  = density of thinner, j, kg thinner per liter thinner.

$W_{t,j}$  = mass fraction of organic HAP in thinner, j, kg organic HAP per kg thinner.

$n$  = number of different thinners used during the compliance period.

- [3] Calculate the kg organic HAP in the cleaning materials used during the month [40 CFR 63.4151(e)(3)]:

$$C = \sum_{k=1}^p (Vol_{s,k})(D_{s,k})(W_{s,k})$$

(Equation 1C, 40 CFR 63.4151)

Where:

$C$  = total mass of organic HAP in the cleaning materials used during the compliance period, kg.

$Vol_{s,k}$  = total volume of cleaning material, k, used during the compliance period, liters.

$D_{s,k}$  = density of cleaning material, k, kg cleaning material per liter cleaning material.

$W_{s,k}$  = mass fraction of organic HAP in cleaning material, k, kg organic HAP per kg material.

$p$  = number of different cleaning materials used during the compliance period.

- (ii) Calculate the total volume of coating solids used during the month [40 CFR 63.4151(f)]:

$$V_{st} = \sum_{i=1}^m (Vol_{s,i})(V_{s,i})$$

(Equation 2, 40 CFR 63.4151)

Where:

$V_{st}$  = total volume of coating solids used during the month, liters

$Vol_{c,i}$  = total volume of coating, i, used during the compliance period, liters.

$V_{s,i}$  = volume fraction of coating solids for coating, i, liters solids per liter coating, determined according to one of the following: (40 CFR 63.4141(b))

(iii) You must determine the volume fraction of coating solids (liters of coating solids per liter of coating) for each coating used during the compliance period by a test, by information provided by the supplier or the manufacturer of the material, or by calculation as specified in paragraphs (b)(1) through (3) of this section. [40 CFR 63.4141(b)]

[1] (ASTM Method D2697-86 (Reapproved 1998) or D6093-97. You may use ASTM Method D2697-86 (Reapproved 1998), "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings," or D6093-97, "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer" to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids. [40 CFR 63.4141(b)(1)]

[2] (Information from the supplier or manufacturer of the material. You may obtain the volume fraction of coating solids for each coating from the supplier or manufacturer. [40 CFR 63.4141(b)(2)]

[3] Calculation of volume fraction of coating solids. If the volume fraction of coating solids cannot be determined using the options in paragraph (b)(1) and (2) of this section, then you must determine using Equation 1 of 40 CFR 63.4141: [40 CFR 63.4141(b)(3)]

$$V_s = 1 - \frac{m_{volatiles}}{D_{avg}}$$

(Equation 1, 40 CFR 63.4141)

## Where:

$V_s$  = volume fraction of coating solids, liters coating solids per liter coating.

$m_{volatiles}$  = total volatile matter content of the coating, including HAP, volatile organic compounds (VOC), water, and exempt compounds, determined according to Method 24 in appendix A of 40 CFR part 60, grams volatile matter per liter coating.

$D_{avg}$  = average density of volatile matter in the coating, grams volatile matter per liter volatile matter, determined from test results using ASTM Method D1475-98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475-98 test results and other information sources, the test results will take precedence.

- iv. A monthly record of the name and volume of each coating, thinner, and cleaning material used during the month. [40 CFR 63.4130(d)]
- v. A monthly record of the mass fraction of organic HAP for each coating, thinner, and cleaning material used during each month. [40 CFR 63.4130(e)]
- vi. A monthly record of the volume fraction of coating solids for each coating used during each month except for zero-HAP coatings for which volume solids determination is not required as allowed in 40 CFR 63.4141(a). [40 CFR 63.4130(f)]
- vii. A monthly record of the density for each coating used during each compliance period except for zero-HAP coatings for which volume solids determination is not required as allowed in 63.4141(a) and, if you use either the emission rate without add-on controls or the emission rate with add-on controls compliance option, a record of the density for each thinner and cleaning material used during each compliance period. [40 CFR 63.4130(g)]

- viii. The owner or operator shall maintain records of the date, time, and duration of each deviation. [40 CFR 63.4130(j)]

#### **S4. Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall report the following information, as required by General Condition 14:

##### **a. HAP**

- i. The semiannual compliance report must contain the information specified as below: [40 CFR 63.4120(b)]
  - (1) Company name and address. [40 CFR 63.4120(b)(1)]
  - (2) Statement by a responsible official with that official's name, title, and signature certifying the truth, accuracy, and completeness of the content of the report. [40 CFR 63.4120(b)(2)]
  - (3) Date of report and beginning and ending dates or the reporting period. The reporting period is the 6-month period ending on June 30 or December 31. [40 CFR 63.4120(b)(3)]
  - (4) Identification of the compliance option or options specified in 63.4091 (compliant material option, the emission rate without add-on controls option, or the emission rate with add-on controls option) that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you must report the beginning and ending dates you used each option. [40 CFR 63.4120(b)(4)]
- ii. If there were no deviations from the emission limit in 40 CFR 63.4090, 63.4092, and 63.4093 that applied to you, the semiannual compliance report must include a statement that there were no deviations from the emission limitations during the reporting period. [40 CFR 63.4120(c)]
- iii. For the compliant material option:  
If you used the compliant material option and there was a deviation from the applicable emission limit in 40 CFR 63.4090, the semiannual compliance report must contain the following: [40 CFR 63.4120(d)]
  - (1) Identification of each coating used that deviated from the emission limit, each thinner and cleaning material used that contained organic HAP, and the dates and time periods each was used. [40 CFR 63.4120(d)(1)]
  - (2) The determination of the organic HAP content, according to 63.4141(d), for each coating identified in paragraph (d)(1) of this section. You do not need to submit background data supporting this

- calculation, for example, information provided by coating suppliers or manufacturers or test reports. [40 CFR 63.4120(d)(2)]
- (3) The determination of the organic HAP for each thinner and cleaning material identified in paragraph (d)(1) of this section. You do not need to submit background data supporting this calculation, for example, information provided by material suppliers or manufactures or test reports. [40 CFR 63.4120(d)(3)]
  - (4) A statement of the cause of each deviation. [40 CFR 63.4120(d)(4)]
- iv. For the emission rate without add-on controls option:  
If you use the emission rate without add-on controls option and there was a deviation from the applicable emission limit in 63.4090, the semiannual compliance report must contain the following information:  
[40 CFR 63.4120(e)]
- (1) The beginning and ending dates of each compliance period during which the organic HAP emission rate exceeded the emission limit. [40 CFR 63.4120(e)(1)]
  - (2) The calculations used to determine the organic HAP emission rate for the compliance period in which the deviation occurred. You must provide the calculations for Equations 1, 1A through 1C, 2, and 3 in 63.4151; and, if applicable, the calculation used to determine the organic HAP in waste materials according to 63.4151(e) (4). You do not need to submit background data supporting these calculations, for example, information provided by materials suppliers or manufactures or test reports. [40 CFR 63.4120(e)(2)]
  - (3) A statement of the cause of each deviation. [40 CFR 63.4120(e)(3)]

### Comments

1. The Initial Notification required by 40 CFR 63.4110(a)(1) was submitted on July 23, 2003.
2. The Notification of Compliance Status was submitted on Sep. 30, 2005.
3. The reports required by 40 CFR 63 Subpart NNNN are to be postmarked or delivered by July 31 or January 31, whichever is the first date following the end of the report period.

**Appendix C - 40 CFR 63 Subpart DDDDD Table 3**

| <b>Table 4 to Subpart DDDDD of Part 63 —Work Practice Standards</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>If your unit is...</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>You must meet the following...</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <p>1. A new or existing boiler or process heater with a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light liquid, or a limited use boiler or process heater</p>                                                                                                                                                        | <p>Conduct a tune-up of the boiler or process heater every 5 years as specified in § 63.7540.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <p>2. A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of less than 10 million Btu per hour in the unit designed to burn heavy liquid or unit designed to burn solid fuel subcategories; or a new or existing boiler or process heater with heat input capacity of less than 10 million Btu per hour, but greater than 5 million Btu per hour, in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light liquid</p> | <p>Conduct a tune-up of the boiler or process heater biennially as specified in § 63.7540.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p>3. A new or existing boiler or process heater without a continuous oxygen trim system and with heat input capacity of 10 million Btu per hour or greater</p>                                                                                                                                                                                                                                                                                                                                                                                                  | <p>Conduct a tune-up of the boiler or process heater annually as specified in § 63.7540. Units in either the Gas 1 or Metal Process Furnace subcategories will conduct this tune-up as a work practice for all regulated emissions under this subpart. Units in all other subcategories will conduct this tune-up as a work practice for dioxins/furans.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <p>4. An existing boiler or process heater located at a major source facility, not including limited use units</p>                                                                                                                                                                                                                                                                                                                                                                                                                                               | <p>Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operated under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least one year between January 1, 2008 and the compliance date specified in § 63.7495 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a. to e. appropriate for the on-site technical hours listed in § 63.7575:</p> <ul style="list-style-type: none"> <li>a. A visual inspection of the boiler or process heater system.</li> <li>b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.</li> <li>c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.</li> <li>d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.</li> <li>e. A review of the facility's energy management program and provide recommendations for improvements consistent with the definition of energy management program, if identified.</li> <li>f. A list of cost-effective energy conservation measures that are within the facility's control.</li> <li>g. A list of the energy savings potential of the energy conservation measures identified.</li> <li>h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.</li> </ul> |

### Appendix D - Emission Factors and Calculation Methodologies

The emissions shall be calculated according to the following methodology or another method approved in writing by the District. Emissions are calculated by multiplying the throughput (ton, MMCF, gallons, etc.) or hours of operation of the equipment by the appropriate emission factor and take into account control devices, reclamation units and building fallout factors if applicable. In lieu of recording annual throughputs and calculating actual annual emissions, the owner or operator may elect to report the pollutant Potential To Emit (PTE) quantity listed in the Insignificant Activities table, as the annual emission for each piece of equipment that is designated as an IA.

#### Acroynyms

- FE – Filter Efficiency (e.g. baghouse, HEPA filter, cyclone, reclamation unit, etc.)
- FOF – PM Fall Out Factor
- GRR – Grit Removal Rate
- MT – Material Throughput
- TE – Transfer Efficiency
- RE – Recovery Capture Efficiency

Note for AP-42 Chapter 1.4 External Combustion Sources – Natural Gas Combustion:

EPA has updated the particulate matter (TSP, PM condensable, PM10, and PM2.5 filterable) emission factors for natural gas combustion in March 2012 Emission Inventory and Analysis Group. The following are the new emission factors:

| Pollutant         | New Value    |
|-------------------|--------------|
| TSP               | 0.52 lb/MMCF |
| PM condensable    | 0.32 lb/MMCF |
| PM filterable     | 0.20 lb/MMCF |
| PM <sub>10</sub>  | 0.52 lb/MMCF |
| PM <sub>2.5</sub> | 0.43 lb/MMCF |

Table 1 - Unit U01: Powder Paint System (AP1)

| Equipment            | Emission Point | Emission Calculation                                                                                                                          |
|----------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Powder Coating Booth | EP 100A        | <p style="text-align: center;">PM:</p> $\left( MT, \frac{lb}{hr} \right) (1 - 60\% TE)(1 - 90\% RE)(1 - 70\% FOF)(1 - 70\% FOF)(1 - 90\% FE)$ |

| Equipment                | Emission Point                | Emission Calculation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |                               |                 |    |    |    |                          |      |                 |     |     |     |              |      |
|--------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------|-----------------|----|----|----|--------------------------|------|-----------------|-----|-----|-----|--------------|------|
| Bake Oven                | EP 100B-1                     | <p>VOC from powder paint cure:<br/> <math display="block">\left( MT, \frac{lb}{hr} \right) (Material\ VOC\ \% \text{ at cure temperature})</math> <math display="block">\times 0.90</math></p> <p>HAP from powder paint cure:<br/> <math display="block">\left( MT, \frac{lb}{hr} \right) (Material\ HAP\ \% \text{ at cure temperature})</math> <math display="block">\times 0.90</math></p> <p>Natural Gas Combustion:<br/>                     Emission (lb/yr) = Million cubic feet × EF<br/>                     Where EF =</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Pollutant</th> <th>EF<br/>(lb/MMft<sup>3</sup>)</th> </tr> </thead> <tbody> <tr> <td>NO<sub>x</sub></td> <td>50</td> </tr> <tr> <td>CO</td> <td>84</td> </tr> <tr> <td>PM =<br/>PM<sub>10</sub></td> <td>0.52</td> </tr> <tr> <td>SO<sub>2</sub></td> <td>0.6</td> </tr> <tr> <td>VOC</td> <td>5.5</td> </tr> <tr> <td>Total<br/>HAP</td> <td>1.89</td> </tr> </tbody> </table> | Pollutant | EF<br>(lb/MMft <sup>3</sup> ) | NO <sub>x</sub> | 50 | CO | 84 | PM =<br>PM <sub>10</sub> | 0.52 | SO <sub>2</sub> | 0.6 | VOC | 5.5 | Total<br>HAP | 1.89 |
| Pollutant                | EF<br>(lb/MMft <sup>3</sup> ) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                               |                 |    |    |    |                          |      |                 |     |     |     |              |      |
| NO <sub>x</sub>          | 50                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                               |                 |    |    |    |                          |      |                 |     |     |     |              |      |
| CO                       | 84                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                               |                 |    |    |    |                          |      |                 |     |     |     |              |      |
| PM =<br>PM <sub>10</sub> | 0.52                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                               |                 |    |    |    |                          |      |                 |     |     |     |              |      |
| SO <sub>2</sub>          | 0.6                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                               |                 |    |    |    |                          |      |                 |     |     |     |              |      |
| VOC                      | 5.5                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                               |                 |    |    |    |                          |      |                 |     |     |     |              |      |
| Total<br>HAP             | 1.89                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |                               |                 |    |    |    |                          |      |                 |     |     |     |              |      |
| Sintering Oven           | EP 100D                       | <p>VOC from powder paint sintering:<br/> <math display="block">\left( MT, \frac{lb}{hr} \right) (Material\ VOC\ \% \text{ at cure temperature})</math> <math display="block">\times 0.10</math></p> <p>HAP from powder paint sintering:<br/> <math display="block">\left( MT, \frac{lb}{hr} \right) (Material\ HAP\ \% \text{ at cure temperature})</math> <math display="block">\times 0.10</math></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           |                               |                 |    |    |    |                          |      |                 |     |     |     |              |      |

Table 2 - Unit U30: Powder Paint System (AP2)

| Equipment            | Emission Point | Emission Calculation                                                                                                                                                         |
|----------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Paint Curing Oven #1 | EP 213         | VOC:<br>$\left( MT, \frac{lb}{hr} \right) (Material\ VOC\ \% \text{ at cure temperature})$                                                                                   |
| Paint Curing Oven #2 | EP 214         | HAP:<br>$\left( MT, \frac{lb}{hr} \right) (Material\ HAP\ \% \text{ at cure temperature})$<br>See AP-42 Chapter 1.4:<br>External Combustion Sources – Natural Gas Combustion |

| Equipment                                | Emission Point | Emission Calculation                                                                                            |
|------------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------|
| Double tunnel phosphator pretreat washer | EP-214B        | VOC:<br>$(MT, lb/hr)(Material VOC \%)$<br>HAP:<br>$(MT, lb/hr)(Material HAP \%)$                                |
| Powder Coating Booth                     | EP 214C        | PM:<br>$\left(MT, \frac{lb}{hr}\right) (1 - 60\% TE) (1 - 90\% RE) (1 - 70\% FOF) (1 - 70\% FOF) (1 - 90\% FE)$ |

Table 3 - Unit U40: Rack Prime Dip (AP3)

| Equipment          | Emission Point | Emission Calculation                                                             |
|--------------------|----------------|----------------------------------------------------------------------------------|
| Prime Dip Tank     | EP 304         | VOC:<br>$(MT, lb/hr)(Material VOC \%)$<br>HAP:<br>$(MT, lb/hr)(Material HAP \%)$ |
| Oven               | EP 305         | See AP-42 Chapter 1.4:<br>External Combustion Sources – Natural Gas Combustion   |
| Prime Drip Chamber | EP 306         | VOC:<br>$(MT, lb/hr)(Material VOC \%)$<br>HAP:<br>$(MT, lb/hr)(Material HAP \%)$ |

Table 4 - Unit U42: PVC Fluidized Bed (AP3)

| Equipment | Emission Point | Emission Calculation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fluid Bed | EP 309         | <p>PM:</p> $MT \times \left( \frac{0.00047 \text{ lb}_{PM}}{\text{lb}_{media}} \right)$ <p>OR</p> <p><math>EF \times t</math></p> <p>EF is the emission factor based on an August 2010 stack test. The value is 0.08 lb/hr through 2020. A new emission rate test must be conducted prior to December 2020 to continue using this methodology.</p> <p><math>t</math> is the time that the fluidized bed operates.</p> <p>If a new stack test is not conducted prior to December 2020, PM emissions from this point must be calculated using:</p> $\left( MT, \frac{\text{lb}}{\text{hr}} \right) (1 - 60\% TE)(1 - 70\% FOF)$ <p>VOC:</p> $\left( MT, \frac{\text{lb}}{\text{hr}} \right) (\text{Material VOC } \% \text{ at cure temperature})$ <p>HAP:</p> $\left( MT, \frac{\text{lb}}{\text{hr}} \right) (\text{Material HAP } \% \text{ at cure temperature})$ |
| Oven      | EP 310         | <p>See AP-42 Chapter 1.4:<br/>External Combustion Sources – Natural Gas Combustion</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

Table 5 - Unit U81 and U82: Gas-fired Boilers

| <b>Equipment</b>                         | <b>Emission Point</b> | <b>Emission Calculation</b>                                                    |
|------------------------------------------|-----------------------|--------------------------------------------------------------------------------|
| Boiler #8                                | EP 909                | See AP-42 Chapter 1.4:<br>External Combustion Sources – Natural Gas Combustion |
| AERCO boiler                             | 325A                  |                                                                                |
| AERCO boiler                             | 326A                  |                                                                                |
| AERCO boiler                             | 327                   |                                                                                |
| Immersion Heater                         | AP1HA1                |                                                                                |
| AP-1 AERCO Boiler                        | AP1BM1                |                                                                                |
| AP-1 AERCO Boiler                        | AP1BM2                |                                                                                |
| AP-1 AERCO Boiler                        | AP1BM3                |                                                                                |
| AP-2 AERCO Boiler                        | AP2BM1                |                                                                                |
| AP-2 AERCO Boiler                        | AP2BM2                |                                                                                |
| AP-2 AERCO Boiler                        | AP2BM3                |                                                                                |
| AP-3 AERCO Boiler                        | AP3BM1                |                                                                                |
| AP-3 AERCO Boiler                        | AP3BM2                |                                                                                |
| AP-3 AERCO Boiler                        | AP3BM3                |                                                                                |
| Immersion Heater Stage 1                 | EP-1A                 |                                                                                |
| Immersion Heater Stage 2                 | EP-1B                 |                                                                                |
| Two (2) AP-1 SS Tub Immersion Heaters    | IA01-2                |                                                                                |
| ImmersoPak heater                        | IA01-3                |                                                                                |
| AP-1 steel part cleaning Maxon Tube oven | IA01-5                |                                                                                |
| Eclipse ImmersoPak IP008 heater          | IA01-16               |                                                                                |

Table 6 - Unit U87: Gasoline Storage Tank and Dispensing

| <b>Equipment</b>                     | <b>Emission Point</b> | <b>Emission Calculation</b>                                                                   |
|--------------------------------------|-----------------------|-----------------------------------------------------------------------------------------------|
| Gasoline Storage Tank and Dispensing | Tank No. 900          | See AP-42 Chapter 5.2: Petroleum Industry – Transportation and Marketing of Petroleum Liquids |

Table 7 - Unit U104 – U107: Metal Parts Fabrication (AP2)

| Equipment                             | Emission Point | Emission Calculation                                         |
|---------------------------------------|----------------|--------------------------------------------------------------|
| Lubricant for Door Panel Press #25001 | EP 224         | VOC:<br><br>$(MT, gal/hr)(Density, lb/gal)(Material VOC \%)$ |
| Lubricant for Door Panel Press #25002 | EP 225         |                                                              |
| Lubricant for Door Panel Press #25378 | EP 226         |                                                              |
| Lubricant for Door Panel Press #58737 | EP 227         |                                                              |

Table 8 - Unit U109: Abrasive Blasting (Hanger Paint Stripping Process) (AP2)

| Equipment                                                                                   | Emission Point | Emission Calculation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Abrasive blasting unit by Blastec using steel shot rated @ 320,000 lbs blast media per hour | EP 239         | <p style="text-align: center;">Controlled PM:</p> $PM_{controlled} = EF_C \times (hours)(1 - \eta_1)(1 - \eta_2)(1 - FOF)$ <p>Where</p> $EF_C = \left[ \frac{total\ waste\ collected/hours\ of\ operation}{\eta_1} \right] lb/hr$ <p> <math>\eta_1 = 98\%</math><br/> <math>\eta_2 = 90\%</math><br/> <math>FOF = 70\%</math> </p> <p style="text-align: center;">Uncontrolled PM:</p> $PM_{uncontrolled} = EF_u \times (thruput) \times (hours) \times (1 - \eta_1)(1 - \eta_2)(1 - FOF)$ <p>Where</p> $EF_u = 2.7\ lb_{PM}/(1000\ lb_{abrasive})$ $thruput = 320,000\ lb/hr$ <p style="text-align: center;">HAP</p> <p>Calculated using the same formulae as for PM, except</p> $EF_c = 40 \times (\% \text{ manganese})\ lb/hr$ <p>and</p> $EF_u = \{ [2.7 \times (\% \text{ manganese})] lb_{Mn} / (1000\ lb_{abrasive}) \}$ |

Table 9 - Unit U111: Emergency Generators – RICE MACT

| Equipment                           | Emission Point    | Emission Calculation                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AP1 Emergency Engine                | EP U111a          | <p style="text-align: center;">See AP-42 Chapter 3: Stationary Internal Combustion Sources<br/>                     Section 3.2: Natural Gas-fired Reciprocating Engines<br/>                     Section 3.3: Gasoline and Diesel Industrial Engines<br/>                     Manufacturer data should be used instead of AP-42 when applicable</p> |
| AP3 Communications Emergency Engine | EP AP3 Comms (IA) |                                                                                                                                                                                                                                                                                                                                                      |
| AP5 Emergency Engine                | EP AP5 (IA)       |                                                                                                                                                                                                                                                                                                                                                      |

Table 10 - Unit U112: Emergency Generators – RICE MACT and NSPS CI ICE

| Equipment                   | Emission Point | Emission Calculation                                                                                                                                                                                                                            |
|-----------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Kohler Emergency Engine     | EP DC#1        | See AP-42 Chapter 3: Stationary Internal Combustion Sources<br>Section 3.2: Natural Gas-fired Reciprocating Engines<br>Section 3.3: Gasoline and Diesel Industrial Engines<br>Manufacturer data should be used instead of AP-42 when applicable |
| Kohler Emergency Engine     | EP DC#2        |                                                                                                                                                                                                                                                 |
| Backup Emergency Engine     | EP IWT (IA)    |                                                                                                                                                                                                                                                 |
| Mitsubishi Emergency Engine | AP23a (IA)     |                                                                                                                                                                                                                                                 |
| Mitsubishi Emergency Engine | AP23b (IA)     |                                                                                                                                                                                                                                                 |

Table 11 - Unit U310: Nylon Rack Fluidized Bed Coating (AP3)

| Equipment      | Emission Point | Emission Calculation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Preheat Oven   | AP3-310        | See AP-42 Chapter 1.4:<br>External Combustion Sources – Natural Gas Combustion                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Fluidized Bed  | AP3-310a       | <p>PM:</p> $MT \times \left( \frac{0.00047 \text{ lb}_{PM}}{\text{lb}_{media}} \right)$ <p>OR</p> $EF \times t$ <p>EF is the emission factor based on an August 2010 stack test. The value is 0.08 lb/hr through 2020. A new emission rate test must be conducted prior to December 2020 to continue using this methodology.</p> <p><i>t</i> is the time that the fluidized bed operates.</p> <p>If a new stack test is not conducted prior to December 2020, PM emissions from this point must be calculated using:</p> $(MT, \text{lb/hr})(1 - 60\% TE)(1 - 70\% FOF)$ <p>VOC:</p> $\left( MT, \frac{\text{lb}}{\text{hr}} \right) (\text{Material VOC } \% \text{ at cure temperature})$ <p>HAP:</p> $\left( MT, \frac{\text{lb}}{\text{hr}} \right) (\text{Material HAP } \% \text{ at cure temperature})$ |
| Post-heat Oven | AP3-310b       | See AP-42 Chapter 1.4:<br>External Combustion Sources – Natural Gas Combustion                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

Table 12 - Unit U311: Adhesive for End Caps on Dishwasher Racks (AP3)

| Equipment             | Emission Point | Emission Calculation                                                                                                 |
|-----------------------|----------------|----------------------------------------------------------------------------------------------------------------------|
| Rack End Cap Adhesive | AP3-311        | VOC:<br>$(MT, gal/hr)(Density, lb/gal)(Material VOC \%)$<br>HAP:<br>$(MT, gal/hr)(Density, lb/gal)(Material HAP \%)$ |

Table 13 - Table 15 Unit U500: Touch-Up Paint, Adhesives and Lubricating the Spine Fin Evaporator Bottom Mount Freezer Refrigerator Line (AP5)

| Equipment                                | Emission Point              | Emission Calculation                                                                                                 |
|------------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------|
| Touch-Up Paint, Adhesives, and Lubricant | EP-500a, EP-500b, & EP-500c | VOC:<br>$(MT, gal/hr)(Density, lb/gal)(Material VOC \%)$<br>HAP:<br>$(MT, gal/hr)(Density, lb/gal)(Material HAP \%)$ |

Table 14 - Unit U510: Bottom Mount Freezer Refrigerator Line (AP5)

| Equipment            | Emission Point | Emission Calculation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                       |              |                                                 |                                                 |   |              |        |            |       |   |                |        |           |       |   |          |        |            |       |   |           |        |   |                       |   |            |        |   |                      |
|----------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------|--------------|-------------------------------------------------|-------------------------------------------------|---|--------------|--------|------------|-------|---|----------------|--------|-----------|-------|---|----------|--------|------------|-------|---|-----------|--------|---|-----------------------|---|------------|--------|---|----------------------|
| Insulating Foam Line | EP-510         | <p>VOC:</p> $\sum_{i=1}^n \frac{MT_i VOC_i EF_i}{2000} \text{ tons/year}$ <table border="1"> <thead> <tr> <th><i>i</i></th> <th>Foam Component</th> <th></th> <th>VOC fraction</th> <th>EF (lb<sub>voc</sub>/lb<sub>material</sub>)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Cyclopentane</td> <td>Part B</td> <td>0.12<br/>12</td> <td>0.014</td> </tr> <tr> <td>2</td> <td>Amine catalyst</td> <td>Part B</td> <td>0.02<br/>3</td> <td>0.010</td> </tr> <tr> <td>3</td> <td>silicone</td> <td>Part B</td> <td>0.01<br/>24</td> <td>0.078</td> </tr> <tr> <td>5</td> <td>MDI (HAP)</td> <td>Part A</td> <td>1</td> <td><math>1.80 \times 10^{-7}</math></td> </tr> <tr> <td>6</td> <td>pMDI (HAP)</td> <td>Part A</td> <td>1</td> <td><math>2.2 \times 10^{-7}</math></td> </tr> </tbody> </table> <p>The VOC fraction for each of the components in Part B is approximate and represents the best estimate of the typical value for each component.</p> <p>HAP/TAC:<br/>Calculated in the same way as VOC, using only the HAPs in the emission factor table</p> | <i>i</i>       | Foam Component        |              | VOC fraction                                    | EF (lb <sub>voc</sub> /lb <sub>material</sub> ) | 1 | Cyclopentane | Part B | 0.12<br>12 | 0.014 | 2 | Amine catalyst | Part B | 0.02<br>3 | 0.010 | 3 | silicone | Part B | 0.01<br>24 | 0.078 | 5 | MDI (HAP) | Part A | 1 | $1.80 \times 10^{-7}$ | 6 | pMDI (HAP) | Part A | 1 | $2.2 \times 10^{-7}$ |
|                      |                | <i>i</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Foam Component |                       | VOC fraction | EF (lb <sub>voc</sub> /lb <sub>material</sub> ) |                                                 |   |              |        |            |       |   |                |        |           |       |   |          |        |            |       |   |           |        |   |                       |   |            |        |   |                      |
| 1                    | Cyclopentane   | Part B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.12<br>12     | 0.014                 |              |                                                 |                                                 |   |              |        |            |       |   |                |        |           |       |   |          |        |            |       |   |           |        |   |                       |   |            |        |   |                      |
| 2                    | Amine catalyst | Part B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.02<br>3      | 0.010                 |              |                                                 |                                                 |   |              |        |            |       |   |                |        |           |       |   |          |        |            |       |   |           |        |   |                       |   |            |        |   |                      |
| 3                    | silicone       | Part B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.01<br>24     | 0.078                 |              |                                                 |                                                 |   |              |        |            |       |   |                |        |           |       |   |          |        |            |       |   |           |        |   |                       |   |            |        |   |                      |
| 5                    | MDI (HAP)      | Part A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1              | $1.80 \times 10^{-7}$ |              |                                                 |                                                 |   |              |        |            |       |   |                |        |           |       |   |          |        |            |       |   |           |        |   |                       |   |            |        |   |                      |
| 6                    | pMDI (HAP)     | Part A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1              | $2.2 \times 10^{-7}$  |              |                                                 |                                                 |   |              |        |            |       |   |                |        |           |       |   |          |        |            |       |   |           |        |   |                       |   |            |        |   |                      |

| Equipment           | Emission Point | Emission Calculation                                                                                                                                                                  |
|---------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Main Extruder Line  | EP-511         | VOC:<br>$(MT, lb/hr)(Emission\ Factor\ 0.000231\ (lb\ Voc) / (lb\ ABS\ Extruded))$<br>HAP/TAC:<br>$(MT, \frac{lb}{hr})(Emission\ Factor\ 0.0001871\ (lb\ HAP) / (lb\ ABS\ Extruded))$ |
| Small Extruder Line | EP-512         | VOC:<br>$(MT, lb/hr)(Emission\ Factor\ 0.000231\ (lb\ Voc) / (lb\ ABS\ Extruded))$<br>HAP/TAC:<br>$(MT, \frac{lb}{hr})(Emission\ Factor\ 0.0001871\ (lb\ HAP) / (lb\ ABS\ Extruded))$ |

Table 15 - Unit U530: AP2 Metallic Powder Paint (TV-14-1012-C)

| Equipment                      | Emission Point | Emission Calculation                                                                                                                                                                                                       |
|--------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dry Off Oven (Infrared)        | EP-2A          | See AP-42 Chapter 1.4:<br>External Combustion Sources – Natural Gas Combustion                                                                                                                                             |
| Basecoat Powder Paint Booth    | EP-3           | PM:<br>$(MT, \frac{lb}{hr})(1 - 60\% TE)(1 - 90\% RE)(1 - 70\% FOF)(1 - 70\% FOF)(1 - 90\% FE)$<br>HAP/TAC:<br>$(MT, \frac{lb}{hr})(1 - 60\% TE)(Material\ HAP\ \%)(1 - 90\% RE)(1 - 70\% FOF)(1 - 70\% FOF)(1 - 90\% FE)$ |
| Gel Oven (Infrared)            | EP-4A          | See AP-42 Chapter 1.4:<br>External Combustion Sources – Natural Gas Combustion                                                                                                                                             |
| Basecoat Gel Oven (Infrared)   | EP-4B          |                                                                                                                                                                                                                            |
| Clear Coat Powder Paint Booth  | EP-5           | PM:<br>$(MT, \frac{lb}{hr})(1 - 50\% TE)(1 - 90\% RE)(1 - 70\% FOF)(1 - 70\% FOF)(1 - 90\% FE)$                                                                                                                            |
| Gel Oven (Infrared)            | EP-6A          | See AP-42 Chapter 1.4:<br>External Combustion Sources – Natural Gas Combustion                                                                                                                                             |
| Clear Coat Gel Oven (Infrared) | EP-6B          |                                                                                                                                                                                                                            |
| Cure Oven                      | EP-7A          | VOC:<br>$(MT, \frac{lb}{hr})(Material\ VOC\ \% \text{ at cure temperature})$                                                                                                                                               |
| Cure Oven                      | EP-7B          |                                                                                                                                                                                                                            |

| Equipment                            | Emission Point | Emission Calculation                                                                                                                                                 |
|--------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stainless Steel Dishwasher Door Wipe | EP-IA8         | VOC:<br>$(\#wipes) \left(\frac{1 \text{ ml}}{\text{wipe}}\right) \left(\frac{6.56 \text{ lb}}{\text{gal}}\right) \left(\frac{0.00026 \text{ gal}}{\text{ml}}\right)$ |

Table 16 - Unit 540: Dryer Drum Lubrication

| Equipment                   | Emission Point  | Emission Calculation                                                                                                                                                                                              |
|-----------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Drawing compound applicator | 540-1 and 540-2 | Drum production rate:<br><i>(number of drums per period) / (hours of operation in period)</i><br><br>VOC emission rate (lb/hr):<br><i>(oil used, gallons) × (oil lb/gal) × (oil % VOC) / (hours of operation)</i> |

Table 17 - Solvent Metal Cleaning

| Equipment                                                | Emission Point                                             | Emission Calculation                                  |
|----------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------|
| Parts cleaners are equipped with secondary reservoirs    | Solvent Metal Cleaning Equipment (Secondary Reservoirs)    | VOC:<br>$(MT, \text{lb/hr})(\text{Material VOC } \%)$ |
| Parts cleaners are equipped with no secondary reservoirs | Solvent Metal Cleaning Equipment (No Secondary Reservoirs) |                                                       |

Table 18 - Miscellaneous

| Equipment          | Emission Point | Emission Calculation                                                                             |
|--------------------|----------------|--------------------------------------------------------------------------------------------------|
| AP1 Regrinder      | 32675-11       | PM:<br>$(MT, \text{lb/hr})(0.0491\% \text{ PM})$                                                 |
| Hosokawa Grinder   | 37206-13       | PM:<br>$\left(MT, \frac{\text{lb}}{\text{hr}}\right) (0.0491\% \text{ PM})(1 - 95\% \text{ FE})$ |
| AP5 Misc. Chemical | 176-93         | VOC:                                                                                             |

| Equipment                                          | Emission Point    | Emission Calculation                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AP3 Misc. Chemical                                 | 178-93            | $(MT, gal/hr)(Density, lb/gal)(Material VOC \%)$                                                                                                                                                                                                                                                                                                  |
| AP1 Misc. Chemical                                 | 483-92            |                                                                                                                                                                                                                                                                                                                                                   |
| Sealant in AP10                                    | 479-94            |                                                                                                                                                                                                                                                                                                                                                   |
| Maintenance Paint Booth                            | 35-04             | VOC:<br>$(MT, gal/hr)(Density, lb/gal)(Material VOC \%)$<br><br>PM:<br>$\left(MT, \frac{lb}{hr}\right) (1 - 65\% TE)$                                                                                                                                                                                                                             |
| Paint Touch-up in AP1                              | 583-92            | VOC:<br>$(MT, gal/hr)(Density, lb/gal)(Material VOC \%)$                                                                                                                                                                                                                                                                                          |
| Rack repair station                                | 471-94            |                                                                                                                                                                                                                                                                                                                                                   |
| Lubricant in AP1                                   | 585-91            |                                                                                                                                                                                                                                                                                                                                                   |
| Touch-up Paint in AP1                              | U149              |                                                                                                                                                                                                                                                                                                                                                   |
| Touch-up Paint in AP3                              | U150              |                                                                                                                                                                                                                                                                                                                                                   |
| Plastic compression or injection molding processes | Injection Molding | VOC for polypropylene:<br>$\left(MT, \frac{lb}{month}\right) (Emission Factor (1.04 \times 10^{-4} lb/lb))^{134}$<br>VOC for all other plastics:<br>$\left(MT, \frac{lb}{month}\right) (Emission Factor (3.07 \times 10^{-5} lb/lb))^{135}$<br><br>PM:<br>$\left(MT, \frac{lb}{month}\right) (Emission Factor (3.03 \times 10^{-5} lb/lb))^{136}$ |

Table 19 - Unit IA01: Insignificant Activity Indirect-fired Combustion Sources &lt;1 MMBtu/hr

| Equipment                                                                                    | Emission Point | Emission Calculation                                                           |
|----------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------|
| AP3 Nylon Heater                                                                             | IA01-1         | See AP-42 Chapter 1.4:<br>External Combustion Sources – Natural Gas Combustion |
| >50 Indirect-fired Hot Water heaters located throughout the plant all less than 1.0 MMBtu/hr | 1A01-6         |                                                                                |
| Three 0.1 MMBtu/hr: Sterling QVEF heater (Indirect Fired Space/comfort heaters)              | IA01-7         |                                                                                |

<sup>134</sup> Air & Waste Management Association (A&WMA) 1999 paper on *Development of Emission Factors for Polypropylene Processing*

<sup>135</sup> Air & Waste Management Association (A&WMA) 1996 paper on *Development of Emission Factors for Polyethylene Processing*

<sup>136</sup> Air & Waste Management Association (A&WMA) 1999 paper on *Development of Emission Factors for Polypropylene Processing*

| Equipment                                                                           | Emission Point | Emission Calculation |
|-------------------------------------------------------------------------------------|----------------|----------------------|
| Seven 0.2 MMBtu/hr: Sterling QVEF heater (Indirect Fired Space/comfort heaters)     | IA01-8         |                      |
| Fifteen 0.25 MMBtu/hr: Sterling QVEF heater (Indirect Fired Space/comfort heaters)  | IA01-9         |                      |
| Nine 0.3 MMBtu/hr: Sterling QVEF heater (Indirect Fired Space/comfort heaters)      | IA01-10        |                      |
| Eleven 0.4 MMBtu/hr: Sterling QVEF heater (Indirect Fired Space/comfort heaters)    | IA01-11        |                      |
| Three 0.03 MMBtu/hr: Qmark MUH-10-41 (10 kW) (Indirect Fired Space/comfort heaters) | IA01-12        |                      |
| Five 0.125 MMBtu/hr heater (Indirect Fired Space/comfort heaters)                   | IA01-13        |                      |
| Thirteen 0.3 MMBtu/hr heater (Indirect Fired Space/comfort heaters)                 | IA01-14        |                      |

Table 20 - Unit IA02: Insignificant Activity Regulation 7.25 Process Equipment

| Equipment                                                     | Emission Point | Emission Calculation                                                          |
|---------------------------------------------------------------|----------------|-------------------------------------------------------------------------------|
| Cleaner and Lubricant Use for Bottom Mount Assembly Operation | IA02-1         | VOC:<br>$(MT, gal/hr)(Density, lb/gal)(Material VOC \%)$                      |
| Stainless Steel Tub Assembly                                  | IA02-5         |                                                                               |
| Dishwasher Door Mastic Application                            | IA02-6         |                                                                               |
| Tub Top & Bottom Mastic Application                           | IA02-7         | VOC:<br>$(MT, gal/hr)(Density or Weight, lb/gal or lb/unit)(Material VOC \%)$ |
| Tub Wrap Mastic Application                                   | IA02-8         |                                                                               |
| API RTV Silicon Station                                       | IA02-9         | VOC:<br>$(MT, gal/hr)(Density, lb/gal)(Material VOC \%)$                      |

| Equipment                                                                                       | Emission Point | Emission Calculation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                 |                |              |                                                 |   |                |        |   |  |  |  |                         |
|-------------------------------------------------------------------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|----------------|--------------|-------------------------------------------------|---|----------------|--------|---|--|--|--|-------------------------|
| Two (2) Pad Printing                                                                            | IA02-10        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                 |                |              |                                                 |   |                |        |   |  |  |  |                         |
| Small Freezer Door Foaming Operation                                                            | IA02-12        | <p>VOC:</p> $\sum_{i=1}^n \frac{MT_i VOC_i EF_i}{2000} \text{ tons/year}$ <table border="1"> <thead> <tr> <th><i>i</i></th> <th>Foam Component</th> <th>VOC fraction</th> <th>EF (lb<sub>voc</sub>/lb<sub>material</sub>)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>MDI/pMDI (HAP)</td> <td>Part A</td> <td>1</td> </tr> <tr> <td></td> <td></td> <td></td> <td>3.64 × 10<sup>-6</sup></td> </tr> </tbody> </table> <p>HAP/TAC:<br/>Calculated in the same way as VOC, using only the HAPs in the emission factor table</p> | <i>i</i>                                        | Foam Component | VOC fraction | EF (lb <sub>voc</sub> /lb <sub>material</sub> ) | 1 | MDI/pMDI (HAP) | Part A | 1 |  |  |  | 3.64 × 10 <sup>-6</sup> |
| <i>i</i>                                                                                        | Foam Component | VOC fraction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | EF (lb <sub>voc</sub> /lb <sub>material</sub> ) |                |              |                                                 |   |                |        |   |  |  |  |                         |
| 1                                                                                               | MDI/pMDI (HAP) | Part A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1                                               |                |              |                                                 |   |                |        |   |  |  |  |                         |
|                                                                                                 |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3.64 × 10 <sup>-6</sup>                         |                |              |                                                 |   |                |        |   |  |  |  |                         |
| Aerosol spray adhesive usage in warehouse for replacing loose labels on boxes prior to shipping | IA02-13        | <p>VOC:</p> $(MT, gal/hr)(Density, lb/gal)(Material VOC \%)$                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                 |                |              |                                                 |   |                |        |   |  |  |  |                         |
| AP2 Metallic PP Pretreatment Washing Tunnel                                                     | IA02-15        | <p>VOC:</p> $(MT, gal/hr)(Density, lb/gal)(Material VOC \%)$                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                 |                |              |                                                 |   |                |        |   |  |  |  |                         |
| MEK Quality Test Metallic Powder Painted Parts                                                  | IA02-16        | <p>VOC:</p> $(MT, gal/hr)(Density, lb/gal)(Material VOC \%)$                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                 |                |              |                                                 |   |                |        |   |  |  |  |                         |
| Three (3) Ultrasonic Cleaners for Powder Paint Tools                                            | IA02-17        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                 |                |              |                                                 |   |                |        |   |  |  |  |                         |
| Ten (10) Touch-up Paints and Adhesives not subject to 40 CFR 63 Subpart NNNN                    | IA02-18        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                 |                |              |                                                 |   |                |        |   |  |  |  |                         |
| HA Drum Fabrication Lubricant                                                                   | IA02-19        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                 |                |              |                                                 |   |                |        |   |  |  |  |                         |

| Equipment                                | Emission Point           | Emission Calculation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                 |                |              |                                                 |   |                          |   |                       |
|------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|----------------|--------------|-------------------------------------------------|---|--------------------------|---|-----------------------|
| Swedging/Cutting Lubricant Application   | IA02-20                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                 |                |              |                                                 |   |                          |   |                       |
| Evaporator De-Fin Lubricant Application  | IA02-21                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                 |                |              |                                                 |   |                          |   |                       |
| Waste Water Treatment Plant              | IA02-22                  | Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses and Raoult's Law for estimation of vapor pressure                                                                                                                                                                                                                                                                                                                                                                            |                                                 |                |              |                                                 |   |                          |   |                       |
| Solvent-based Ultrasonic Cleaner for AP5 | IA02-23                  | VOC:<br>$(MT, gal/hr)(Density, lb/gal)(Material VOC \%)$                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                 |                |              |                                                 |   |                          |   |                       |
| Soil or groundwater remediation          | IA02-24                  | VOC using the ideal gas law:<br>$\frac{[(Discharge Concentration (ppm)) (Molecular Weight (\frac{g}{mol}))]}{Molar volume (24.465)} (flow rate)$<br>$(\#of Operating days /yr)(conversion factor (8.99E - 05))$                                                                                                                                                                                                                                                                                                             |                                                 |                |              |                                                 |   |                          |   |                       |
| Tri-Flow lubricant for die maintenance   | IA02-25                  | VOC:<br>$(MT, gal/yr)(2.40 lb/gal)(1 ton/ 2000 lb)$                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                 |                |              |                                                 |   |                          |   |                       |
| Bumper repair Lines 7, 8, 9              | IA02-26                  | VOC:<br>$(MT, gal/yr)(2\% VOC)(1 ton/ 2000 lb)$<br><br>General Electric Appliances submitted a PTE justifying designation of this operation as an insignificant activity based on emissions from Loctite Prism 401 adhesive. Other similar adhesives may be substituted for the convenience of GEA if total emissions from this source are not significantly impacted.                                                                                                                                                      |                                                 |                |              |                                                 |   |                          |   |                       |
| AP5 Door-in-door foaming                 | IA02-27                  | VOC:<br>$\sum_{i=1}^5 \frac{MT_i VOC_i EF_i}{2000} tons/year$ <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th><i>i</i></th> <th>Foam Component</th> <th>VOC fraction</th> <th>EF (lb<sub>voc</sub>/lb<sub>material</sub>)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>MDI/pMDI (HAP)<br/>Part A</td> <td>1</td> <td><math>3.06 \times 10^{-5}</math></td> </tr> </tbody> </table><br>HAP/TAC:<br>Calculated in the same way as VOC, using only the HAPs in the emission factor table | <i>i</i>                                        | Foam Component | VOC fraction | EF (lb <sub>voc</sub> /lb <sub>material</sub> ) | 1 | MDI/pMDI (HAP)<br>Part A | 1 | $3.06 \times 10^{-5}$ |
| <i>i</i>                                 | Foam Component           | VOC fraction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | EF (lb <sub>voc</sub> /lb <sub>material</sub> ) |                |              |                                                 |   |                          |   |                       |
| 1                                        | MDI/pMDI (HAP)<br>Part A | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | $3.06 \times 10^{-5}$                           |                |              |                                                 |   |                          |   |                       |

| Equipment                                 | Emission Point | Emission Calculation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |                      |         |        |               |  |  |  |     |                    |        |                      |         |        |               |             |    |  |  |  |  |  |  |       |     |    |  |  |  |  |  |       |     |  |  |    |    |  |  |        |     |    |  |  |  |    |    |       |     |  |    |  |  |  |  |
|-------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------|---------|--------|---------------|--|--|--|-----|--------------------|--------|----------------------|---------|--------|---------------|-------------|----|--|--|--|--|--|--|-------|-----|----|--|--|--|--|--|-------|-----|--|--|----|----|--|--|--------|-----|----|--|--|--|----|----|-------|-----|--|----|--|--|--|--|
| AP1 Laundry Stamping Aida and CMI presses | IA02-28        | <p>VOC:<br/> <math>(MT\ gal/yr)((diluted\ mix\ lb/gal)(diluted\ stock\ wt\ \%)(stock\ VOC\ \%)(1\ ton/2000gal)</math></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        |                      |         |        |               |  |  |  |     |                    |        |                      |         |        |               |             |    |  |  |  |  |  |  |       |     |    |  |  |  |  |  |       |     |  |  |    |    |  |  |        |     |    |  |  |  |    |    |       |     |  |    |  |  |  |  |
| AP4 Injection molding aerosol cans        | IA02-29        | <p>VOC or HAP:<br/> <math display="block">\sum_{i=1}^n (\#cans)_i (VOC\ or\ HAP\ \%)_i</math></p> <table border="1" data-bbox="573 640 1377 919"> <thead> <tr> <th rowspan="2"></th> <th colspan="7">Weight %</th> </tr> <tr> <th>VOC</th> <th>Trichloro Ethylene</th> <th>Hexane</th> <th>Tetrachloro Ethylene</th> <th>Toluene</th> <th>Xylene</th> <th>Ethyl benzene</th> </tr> </thead> <tbody> <tr> <td>Sprayon 314</td> <td>54</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>L-163</td> <td>100</td> <td>50</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>MC-16</td> <td>100</td> <td></td> <td></td> <td>85</td> <td>10</td> <td></td> <td></td> </tr> <tr> <td>MSP-16</td> <td>100</td> <td>28</td> <td></td> <td></td> <td></td> <td>42</td> <td>10</td> </tr> <tr> <td>44011</td> <td>100</td> <td></td> <td>65</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>This table represents the cleaners in use at the time of application. Other cleaners may be substituted as necessary, with emission calculations performed in a similar manner.</p> |        | Weight %             |         |        |               |  |  |  | VOC | Trichloro Ethylene | Hexane | Tetrachloro Ethylene | Toluene | Xylene | Ethyl benzene | Sprayon 314 | 54 |  |  |  |  |  |  | L-163 | 100 | 50 |  |  |  |  |  | MC-16 | 100 |  |  | 85 | 10 |  |  | MSP-16 | 100 | 28 |  |  |  | 42 | 10 | 44011 | 100 |  | 65 |  |  |  |  |
|                                           | Weight %       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        |                      |         |        |               |  |  |  |     |                    |        |                      |         |        |               |             |    |  |  |  |  |  |  |       |     |    |  |  |  |  |  |       |     |  |  |    |    |  |  |        |     |    |  |  |  |    |    |       |     |  |    |  |  |  |  |
|                                           | VOC            | Trichloro Ethylene                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Hexane | Tetrachloro Ethylene | Toluene | Xylene | Ethyl benzene |  |  |  |     |                    |        |                      |         |        |               |             |    |  |  |  |  |  |  |       |     |    |  |  |  |  |  |       |     |  |  |    |    |  |  |        |     |    |  |  |  |    |    |       |     |  |    |  |  |  |  |
| Sprayon 314                               | 54             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        |                      |         |        |               |  |  |  |     |                    |        |                      |         |        |               |             |    |  |  |  |  |  |  |       |     |    |  |  |  |  |  |       |     |  |  |    |    |  |  |        |     |    |  |  |  |    |    |       |     |  |    |  |  |  |  |
| L-163                                     | 100            | 50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |                      |         |        |               |  |  |  |     |                    |        |                      |         |        |               |             |    |  |  |  |  |  |  |       |     |    |  |  |  |  |  |       |     |  |  |    |    |  |  |        |     |    |  |  |  |    |    |       |     |  |    |  |  |  |  |
| MC-16                                     | 100            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        | 85                   | 10      |        |               |  |  |  |     |                    |        |                      |         |        |               |             |    |  |  |  |  |  |  |       |     |    |  |  |  |  |  |       |     |  |  |    |    |  |  |        |     |    |  |  |  |    |    |       |     |  |    |  |  |  |  |
| MSP-16                                    | 100            | 28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |                      |         | 42     | 10            |  |  |  |     |                    |        |                      |         |        |               |             |    |  |  |  |  |  |  |       |     |    |  |  |  |  |  |       |     |  |  |    |    |  |  |        |     |    |  |  |  |    |    |       |     |  |    |  |  |  |  |
| 44011                                     | 100            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 65     |                      |         |        |               |  |  |  |     |                    |        |                      |         |        |               |             |    |  |  |  |  |  |  |       |     |    |  |  |  |  |  |       |     |  |  |    |    |  |  |        |     |    |  |  |  |    |    |       |     |  |    |  |  |  |  |
| AP10 Contractor Package Regluing          | IA02-30        | <p>VOC:<br/> <math>(MT, lb/yr)(VOC\ \%)(1\ ton/2000\ lb)</math></p> <p>The adhesive used at the time of application had a VOC content of 0.055%. Other adhesives may be substituted as necessary.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |                      |         |        |               |  |  |  |     |                    |        |                      |         |        |               |             |    |  |  |  |  |  |  |       |     |    |  |  |  |  |  |       |     |  |  |    |    |  |  |        |     |    |  |  |  |    |    |       |     |  |    |  |  |  |  |
| AP1 Capacitor lubricant, lines 7 and 8    | IA02-31        | <p>VOC:<br/> <math>(MT, gal/yr)(6.59\ lb_{voc}/gal)(1\ ton/2000\ lb)</math></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        |                      |         |        |               |  |  |  |     |                    |        |                      |         |        |               |             |    |  |  |  |  |  |  |       |     |    |  |  |  |  |  |       |     |  |  |    |    |  |  |        |     |    |  |  |  |    |    |       |     |  |    |  |  |  |  |
| Markforged 3D printer                     | IA02-32        | <p>PM:<br/> <math>[Resin\ usage\ (lb)] \times [5 \times 10^{-5} lb_{PM} / lb_{resin}]</math><br/> VOC:<br/> <math>[Resin\ usage\ (lb)] \times [4 \times 10^{-5} lb_{PM} / lb_{resin}]</math></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |                      |         |        |               |  |  |  |     |                    |        |                      |         |        |               |             |    |  |  |  |  |  |  |       |     |    |  |  |  |  |  |       |     |  |  |    |    |  |  |        |     |    |  |  |  |    |    |       |     |  |    |  |  |  |  |
| Markforged washer/debinder                | IA02-33        | <p>VOC:<br/> <math>Operating\ hours \times 1.8454\ lb/hr \times (1-0.992)</math></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |                      |         |        |               |  |  |  |     |                    |        |                      |         |        |               |             |    |  |  |  |  |  |  |       |     |    |  |  |  |  |  |       |     |  |  |    |    |  |  |        |     |    |  |  |  |    |    |       |     |  |    |  |  |  |  |
| Markforged sintering oven                 | IA02-34        | <p>PM:<br/> <math>[Material\ input\ (lb)] \times [0.012\ lb_{PM} / lb_{material}]</math><br/> VOC:<br/> <math>[Material\ input\ (lb)] \times [0.0163\ lb_{PM} / lb_{material}]</math></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        |                      |         |        |               |  |  |  |     |                    |        |                      |         |        |               |             |    |  |  |  |  |  |  |       |     |    |  |  |  |  |  |       |     |  |  |    |    |  |  |        |     |    |  |  |  |    |    |       |     |  |    |  |  |  |  |

| Equipment                                                   | Emission Point | Emission Calculation                                                                                                                                                                                                 |
|-------------------------------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Four Quality Scan spray booths for dimensional verification | IA02-35        | <u>Paint:</u><br>VOC/HAP = volume used × density × % VOC/HAP<br>PM = volume used × density × % solids × (1-transfer efficiency)<br>[assume TE = 60%]<br><br><u>Developer:</u><br>VOC = volume used × density × % VOC |

Table 21 - Unit IA03: Insignificant Activity Regulation 7.08 Process Equipment

| Equipment                                                                                      | Emission Point | Emission Calculation                                                                                  |
|------------------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------|
| Sixty Brazing, soldering, welding equipment                                                    | IA03-1         |                                                                                                       |
| Pedestal Plastic Re grinder                                                                    | IA03-2         | PM:                                                                                                   |
| Brazing, soldering, or welding on Nylon Wire Rack Line                                         | IA03-5         | $\left(MT, \frac{lb}{hr}\right) (\% PM \text{ or Emission Factor})(1 - 70\% FOF)$                     |
| Nylon powder transfer/clean-up activities                                                      | IA03-6         |                                                                                                       |
| Pellet Grinder and process cyclone make Granutec                                               | IA03-7         | PM:<br>$\left(MT, \frac{lb}{hr}\right) (\% PM \text{ or Emission Factor})(1 - 70\% FOF)(1 - 90\% FE)$ |
| Grinding Operation for AP3 White Tub Re grinder                                                | IA03-8         | PM:                                                                                                   |
| Ten Small Re grinders in AP4 used to recycle plastic                                           | IA03-9         | $\left(MT, \frac{lb}{hr}\right) (\% PM \text{ or Emission Factor})(1 - 70\% FOF)$                     |
| Small Re grinders in AP5 used to recycle plastic                                               | IA03-10        |                                                                                                       |
| Unloading, Conveyance and Storage of Plastic Pellets in AP1                                    | IA03-11        |                                                                                                       |
| Unloading, Conveyance and Storage of Plastic Pellets in AP3                                    | IA03-12        | PM:<br>$\left(MT, \frac{lb}{hr}\right) (\% PM \text{ or Emission Factor})(1 - 70\% FOF)$              |
| Unloading, Conveyance and Storage of Plastic Pellets in AP4                                    | IA03-13        |                                                                                                       |
| Unloading, Conveyance and Storage of Plastic Pellets in AP5                                    | IA03-14        |                                                                                                       |
| Thirteen Cooling Towers                                                                        | IA03-15        | AP-42 Emission Factors Chapter 13.4, Table 13.4-1                                                     |
| Two Sanding Processes to scuff-sand defective painted parts on downdraft table with cartridges | IA03-17        | PM:<br>$\left(MT, \frac{lb}{hr}\right) (\% PM \text{ or Emission Factor})(1 - 70\% FOF)(1 - 90\% FE)$ |

| Equipment                              | Emission Point | Emission Calculation                                                                                                                                     |
|----------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Two Hot Plate Welding of Plastic Parts | IA03-18        | PM:<br>$MT \times EF, EF=0.0588 \text{ lb/lb}$<br><br>VOC:<br>$MT \times EF, EF=0.0176 \text{ lb/lb}$                                                    |
| One Central Vacuum System for AP1      | IA03-19        | PM:<br>$\left(MT, \frac{\text{lb}}{\text{hr}}\right) (\% \text{ PM}/\% \text{ PM10})(1 - 90\% \text{ FE (cyclone)})(1 - 95\% \text{ FE (final Filter)})$ |
| One Central Vacuum System for AP2      | IA03-20        | PM:<br>$\left(MT, \frac{\text{lb}}{\text{hr}}\right) (\% \text{ PM}/\% \text{ PM10})(1 - 90\% \text{ FE (cyclone)})(1 - 95\% \text{ FE (final Filter)})$ |

Table 22 - Unit IA04 (U89): VOC Storage Tank

| Equipment                                                                                                                                                                      | Emission Point | Emission Calculation                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------------------------------------|
| Generator Tank,<br>2500 gallons                                                                                                                                                | IA Tank 1      | Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses |
| Generator Tank, 10,000 gallons                                                                                                                                                 | IA Tank 2      |                                                                                                |
| Generator Tank, 10,000 gallons                                                                                                                                                 | IA Tank 3      |                                                                                                |
| Generator Tank,<br>2859 gallons                                                                                                                                                | IA Tank 4      |                                                                                                |
| Generator Tank; 2859 gallons                                                                                                                                                   | IA Tank 5      |                                                                                                |
| Underground Storage Tank (UST);<br>6000 gallons                                                                                                                                | IA Tank 6      |                                                                                                |
| Seven Hydraulic Oil Storage Tanks:<br>1 - 6000 gallon,<br>1 - 2000 gallon (used oil),<br>2 - 15,000 gallon,<br>1 - 25,000 gallon (used oil);<br>2 - 10,000 gallon (1-used oil) | IA Tank 7      |                                                                                                |
| Twelve Compressor Oil Tanks:<br>3 - 10,000 gallon;<br>9 - 550 gallon                                                                                                           | IA Tank 8      |                                                                                                |
| Three Lubricating Oil Tanks,<br>each 1000 gallons                                                                                                                              | IA Tank 9      |                                                                                                |
| Three Used Oil Tanks:<br>1 - 550 gallon,<br>1 - 1000 gallon,<br>1 - 2000 gallon                                                                                                | IA Tank<br>10  |                                                                                                |

Table 23 - Unit IA05: Combustion Source not accounted for in any other emission unit

| Equipment                                                                                      | Emission Point | Emission Calculation                                                           |
|------------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------|
| 2.0 MMBtu/hr AP1 Make Up Air Heater, Maxon 2.0 APX Line Burner (Direct fired unit)             | IA05-1         | See AP-42 Chapter 1.4:<br>External Combustion Sources – Natural Gas Combustion |
| Three 0.757 MMBtu/hr: Cambridge S800 direct fired heat exchangers (Space/comfort heaters)      | IA05-2         | See AP-42 Chapter 1.4:<br>External Combustion Sources – Natural Gas Combustion |
| Two 0.400 MMBtu/hr: Cambridge S400 direct fired heat exchangers (Space/comfort heaters)        | IA05-3         |                                                                                |
| Six 1.2 MMBtu/hr: Cambridge S1200 direct fired heat exchanger (Space/comfort heaters)          | IA05-4         |                                                                                |
| Twelve 1.499 MMBtu/hr: Cambridge S1600 direct fired heat exchanger (Space/comfort heaters)     | IA05-5         |                                                                                |
| Three 2.2 MMBtu/hr: Cambridge S2200 direct fired heat exchanger (Space/comfort heaters)        | IA05-6         |                                                                                |
| Forty-five 3.107 MMBtu/hr: Cambridge S3200 direct fired heat exchanger (Space/comfort heaters) | IA05-7         |                                                                                |
| Five 5.887 MMBtu/hr: Cambridge M136 direct fired heat exchanger (Space/comfort heaters)        | IA05-8         |                                                                                |
| 7 MMBtu/hr natural gas dryoff oven (Direct fired Unit)                                         | IA05-9         |                                                                                |
| HA Gas Dryer Test Loop                                                                         | IA05-10        |                                                                                |
| Two Abrade Systems Direct-fired natural gas burners at 140,000 Btu/hr each, AP3                | IA05-11        |                                                                                |

Table 24 - Insignificant Activity Table Equipment not covered in any other emission unit

| Equipment                  | Quantity | Emission Calculation                                     |
|----------------------------|----------|----------------------------------------------------------|
| R & D facilities           | <25      | VOC:<br>$(MT, gal/hr)(Density, lb/gal)(Material VOC \%)$ |
| Lab venting and exhausting | >25      | VOC:<br>$(MT, gal/hr)(Density, lb/gal)(Material VOC \%)$ |

| <b>Equipment</b>                      | <b>Quantity</b> | <b>Emission Calculation</b>                                                                    |
|---------------------------------------|-----------------|------------------------------------------------------------------------------------------------|
| VOC Storage Tanks 250 gallons or less | 10              | Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses |
| Lubricating oil storage tanks         | 2               |                                                                                                |

## Appendix E - Protocol Checklist for Performance Test

### A complete protocol must include the following information

1. Facility name, location, and Plant ID number.
2. Responsible Official and environmental contact names.
3. Permit numbers that are requiring the test to be conducted.
4. Test methods to be used (*i.e.* EPA Method 1, 2, 3, 4, and 5).
5. Alternative test methods or description of modifications to the test methods to be used.
6. Purpose of the test including equipment and pollutant to be tested. (The purpose may be described in the permit that requires the test to be conducted or it may be to show compliance with a federal regulation or emission standard.)
7. Tentative test dates. (These may change but the District will need final notice at least 10 days in advance of the actual test dates in order to arrange for observation.)
8. Maximum rated production capacity of the system.
9. Production-rate goal planned during the performance test for demonstration of compliance (if appropriate, based on limits) and justification of the planned production rate, if less than the maximum rate.
10. Method to be used for determining rate of production during the performance test;
11. Method to be used for determining rate of production during subsequent operations of the process equipment to demonstrate compliance.
12. Description of normal operation cycles, if applicable.
13. Discussion of operating conditions that tend to cause worse case emissions. This is especially important to clarify if worst case emissions do not result from the maximum production rate.
14. Process flow diagram.
15. The type and manufacturer of the control equipment, if any.
16. The process and control equipment parameters to be monitored and recorded during the performance test. These parameters may include pressure drops, flow rates, pH, temperature, *etc.* The values achieved during the test may be required during subsequent operations to describe the operating parameters that are indicative of good operating performance.
17. How quality assurance and accuracy of the data will be maintained, including sample identification and chain-of-custody procedures, audit sample provider, and number of audit samples to be used, if applicable.
18. Diameter of the pipe, duct, stack, or flue to be tested.
19. Distances from the testing sample ports to the nearest upstream and downstream flow disturbances such as bends, valves, constrictions, expansions, and exit points for outlet and additionally for inlet.
20. The number of traverse points to be tested for the outlet and the inlet if required, using Appendix A-1 to 40 CFR Part 60.

The Stack Test Review fee must be submitted with each stack test protocol.  
The current fee is listed on the APCD website ([louisvilleky.gov/APCD](http://louisvilleky.gov/APCD))

**Appendix F - Determination of Benchmark Ambient Concentration (BAC)**

Category \_\_\_\_\_ Number \_\_\_\_\_  
 Compound name \_\_\_\_\_ CAS No. \_\_\_\_\_  
 Molecular weight \_\_\_\_\_

BAC<sub>C</sub> = \_\_\_\_\_ μg/m<sup>3</sup>, annual      BAC<sub>NC</sub> = \_\_\_\_\_ μg/m<sup>3</sup>, \_\_\_\_\_ (avg period)  
*de minimis* \_\_\_\_\_ lb/hr; \_\_\_\_\_ lb/\_\_\_\_\_; \_\_\_\_\_ lb/year

- I. Carcinogen Risk - BAC<sub>C</sub>** (annual averaging period)      Carcinogen     YES     NO
- IRIS    10<sup>-6</sup> risk = \_\_\_\_\_ μg/m<sup>3</sup>      URE = \_\_\_\_\_ (μg/m<sup>3</sup>)<sup>-1</sup>      Date \_\_\_\_\_
  - Cal    10<sup>-6</sup> risk = \_\_\_\_\_ μg/m<sup>3</sup>      IUR = \_\_\_\_\_ (μg/m<sup>3</sup>)<sup>-1</sup>      Date \_\_\_\_\_
  - Mich    10<sup>-6</sup> risk = \_\_\_\_\_ μg/m<sup>3</sup>      Date \_\_\_\_\_
  - NTP    Part A     YES     NO      Part B     YES     NO
  - IARC    Group 1     YES     NO      Group 2A     YES     NO      Group 2B     YES     NO
  - ATSDR
  - Sec. 3.3.4    Method # \_\_\_\_\_      10<sup>-6</sup> risk = \_\_\_\_\_ μg/m<sup>3</sup>      Date \_\_\_\_\_
  - Default    0.0004 μg/m<sup>3</sup>

- II. Chronic Noncancer Risk - BAC<sub>NC</sub>** (averaging period as specified)
- IRIS    RfC = \_\_\_\_\_ μg/m<sup>3</sup>, annual      Date \_\_\_\_\_
  - Cal    REL = \_\_\_\_\_ μg/m<sup>3</sup>, annual      Date \_\_\_\_\_
  - IRIS [1]    RfD = \_\_\_\_\_ μg/kg/day × (70/20) = \_\_\_\_\_ μg/m<sup>3</sup>, annual      Date \_\_\_\_\_
  - Mich    ITSL = \_\_\_\_\_ μg/m<sup>3</sup>, \_\_\_\_\_ averaging period      Date \_\_\_\_\_
  - TLV    NIOSH = \_\_\_\_\_ μg/m<sup>3</sup> × 0.01 = \_\_\_\_\_ μg/m<sup>3</sup>, 8-hour      Date \_\_\_\_\_
  - RTECS [1]    \_\_\_\_\_ = \_\_\_\_\_ μg/m<sup>3</sup>, annual      Date \_\_\_\_\_  
 (describe calculation from Reg 5.20, sections 4.6 - 4.10)
  - Default    0.004 μg/m<sup>3</sup>

[1] To use data based upon an oral route of exposure, the District must make an affirmative determination that data are not available to indicate that oral-route to inhalation-route extrapolation is inappropriate.

**III. De minimis calculations**

- Carcinogen    BAC<sub>C</sub> \_\_\_\_\_ μg/m<sup>3</sup> × 0.54 = \_\_\_\_\_ lb/hour  
 BAC<sub>C</sub> \_\_\_\_\_ μg/m<sup>3</sup> × 480 = \_\_\_\_\_ lb/year
- Chronic Noncancer Risk    \_\_\_\_\_ (averaging period)  
 BAC<sub>NC</sub> \_\_\_\_\_ μg/m<sup>3</sup> × F factor = \_\_\_\_\_ lb/(avg period)

| BAC averaging period | F factor for avg period |         |        |        |
|----------------------|-------------------------|---------|--------|--------|
|                      | Annual                  | 24 hour | 8 hour | 1 hour |
| Annual               | 480                     |         |        | 0.54   |
| 24 hours             |                         | 0.12    |        | 0.05   |
| 8 hours              |                         |         | 0.02   | 0.02   |
| 1 hour               |                         |         |        | 0.001  |

[Regulation 5.22, table 1]

Prepared by \_\_\_\_\_ Date \_\_\_\_\_

**Fee Comment**

The Administrative Permit Revision fee of \$546.29 is due prior to issuance of this permit.