

PERMIT AMENDMENT NO. 2821-245-0126-V-06-1

ISSUANCE DATE:



**GEORGIA**  
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

## Air Quality - Part 70 Operating Permit Amendment

**Facility Name:** Solvay Specialty Polymers USA, LLC  
**Facility Address:** 3702 Clanton Road  
Augusta, Georgia 30906 Richmond County  
**Mailing Address:** 3702 Clanton Road  
Augusta, Georgia 30906  
**Parent/Holding Company:** Solvay Specialty Polymers USA, LLC  
**Facility AIRS Number:** 04-13-245-00126

In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Georgia Rules for Air Quality Control, Chapter 391-3-1, adopted pursuant to and in effect under the Act, the Permittee described above is issued a construction permit for:

**Various modifications to existing process lines, and the construction and operation of the Sarsaparilla Process.**

This Permit Amendment shall also serve as a final amendment to the Part 70 Permit unless objected to by the U.S. EPA or withdrawn by the Division. The Division will issue a letter when this Operating Permit amendment is finalized.

This Permit Amendment is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Amendment and Permit No. 2821-245-0126-V-06-0. Unless modified or revoked, this Amendment expires upon issuance of the next Part 70 Permit for this source. This Amendment may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in App No. 29216 dated February 29, 2024; any other applications upon which this Amendment or Permit No. 2821-245-0126-V-06-0 are based; supporting data entered therein or attached thereto; or any subsequent submittal or supporting data; or for any alterations affecting the emissions from this source.

This Amendment is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached 78 pages.



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Jeffrey W. Cown, Director  
Environmental Protection Division

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## PART 1.0 FACILITY DESCRIPTION

### 1.3 Process Description of Modification

Application No. 29216 was submitted for the purpose of modifying several existing process areas, including the addition of new equipment, as well as installing a new process line. Construction of the first project is anticipated to begin in the first quarter of 2025, with the other projects being initiated thereafter. All projects are expected to be completed by 2030.

#### Amodel Project

Among other debottlenecking efforts to existing unit operations, Solvay plans to modify the Amodel process unit by adding solid staging process to gradually increase production. The solid staging process will increase overall unit throughput and requires shorter cycle times in existing equipment, allowing for quicker overall processing.

#### *Utilities*

Addition of a new boiler to replace UB-1210 and provide steam for the Amodel process, as well as other plant processes. The new boiler, UB-1210-1, will have a heat input capacity of 99.5 MMBtu/hr and primarily fire natural gas, with fuel oil as a backup for periods of natural gas curtailment. The boiler will also be equipped with highly efficient low NO<sub>x</sub> and low CO burners. Existing boiler UB-1210 will remain onsite and operational as a spare boiler until the new boiler is operating properly.

#### Compounding Project

Solvay plans to add two new extruder systems (D6 and D7), including associated raw material receiving and conveying equipment (both vacuum and gravity), as well as product processing equipment. Emissions will be controlled by a dedusting system and filters similar to that of a baghouse. D6 and D7 will be capable of using polymer raw material in both powder and pellet form. D7 will also be able to use polymer raw material in liquid form. Each extruder will be equipped with a collection system and a liquid ring vacuum pump, through which the product will be cooled and solidified to form pellets.

#### KetaSpire/NovaSpire Project

Solvay plans to modify this process by adding new equipment and modifying existing equipment to increase production. New equipment will include an oil heater, a reactor and associated scrubber, raw material bins, a new solvent extractor, dryer, and powder system. Solvay plans to install this equipment over the course of several years to make incremental increases in production.

#### Sulfone Project

Solvay plans to expand the Sulfone process in order to incrementally increase annual production. The following changes are proposed:

##### *100 Area – Raw Material Storage*

Addition of a raw material production unit

##### *200 and 300 Areas – Reaction*

Addition of a new Sulfonation II reaction tower. The modification will not add any new emissions points or affect existing emissions.

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### *400 Area – Extraction*

Addition of a new surge drum (LD-441) and a new extraction line. LD-441 will vent to a new condenser (LE-580). The new extraction line will consist of a set of acid and neutralization columns and a wash step, all identical to the existing units.

### *500, 600, 700, and 800 Areas – Production Purification*

Addition of a second concentrator/purification system, which will include new equipment that will all vent to Condenser LE-580.

### *1700 Area – Product Granulation*

Installation of additional equipment, including a molten storage tank with an atmospheric vent (S13F). The total number of tanks for this process will be four; two tanks were previously considered insignificant.

### *MIS Cracking*

With the Sulfone expansion project, Solvay plans to install an additional MIS cracking system that will be identical to the existing system.

### Verian/Xydar Project

Solvay plans to modify two existing Xydar lines to be able to produce either Xydar or another polymer. New equipment that will be added include units for processing, conveying, crystallization, classifying and packaging, as well as storage tanks.

### PUSH Project

Solvay proposes to add several raw materials to the current authorization, but the process remains the same previously permitted. The added raw materials are non-HAP and non-TAP chemicals. The process will be constructed on the east side of the Augusta plant site and involves a batch reaction and purification steps.

Solvay has previously received authorization for off-permit changes; these will now be included as part of the current permit modification.

### Sarsaparilla

The new Sarsaparilla process will produce an isolated intermediate that can be shipped as a product, vinylidene difluoride (VDF), and a polymer product, polyvinylidene fluoride (PVDF). The Sarsaparilla process starts with a primary raw material, I-Chloro-1,1-difluoroethane (aka HCFC-142b or 142b) which is a haloalkane with the chemical formula  $\text{CH}_3\text{CClF}_2$ . This process will crack 142b to produce VDF, which is an intermediate that can be shipped as a product or polymerized onsite to form PVDF. As part of this project, Solvay will also install a 99.5 million Btu/hr natural gas-fired boiler. The boiler will be tied to the site's steam system and could potentially supply steam to processes other than the Sarsaparilla unit.

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### PART 3.0 REQUIREMENTS FOR EMISSION UNITS

Note: Except where an applicable requirement specifically states otherwise, the averaging times of any of the Emissions Limitations or Standards included in this permit are tied to or based on the run time(s) specified for the applicable reference test method(s) or procedures required for demonstrating compliance.

#### 3.1.1 Updated Equipment List

| Emission Units           |   | Applicable Requirements/Standards   | Air Pollution Control Devices     |   |
|--------------------------|---|---|-----------------------------------|---|
| ID No.                   | Description                                       |   | ID No.                            | Description   |
| <b>AMODEL PROCESS</b>    |   |   |                                   |   |
| 0A17                     | Hot Oil Heater KB-901                             | 40 CFR 60 Subpart Dc<br>40 CFR 63 Subpart DDDDD<br>391-3-1-.02(2)(d)<br>391-3-1-.02(2)(g)           | None                              | None  |
| 0A21                     | Boiler UB-1210                                    | 40 CFR 60 Subpart Dc<br>40 CFR 63 Subpart DDDDD<br>391-3-1-.02(2)(d)<br>391-3-1-.02(2)(g)           | None                              | None  |
| <b>0A22</b>              | <b>Boiler UB-1210-1</b>                           | <b>40 CFR 60 Subpart Dc<br/>40 CFR 63 Subpart DDDDD<br/>391-3-1-.02(2)(d)<br/>391-3-1-.02(2)(g)</b> | <b>None</b>                       | <b>None</b>   |
| 0A15                     | Flare KB-807                                      | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(g)  | None                              | None  |
| A270                     | HMDA Wastewater Tank<br>KD-270                    | None  | None                              | None  |
| 0A6D                     | Extruder KM-601                                   | 391-3-1-.02(2)(b)   | 0A6A<br>0A6B<br>C603<br><br>KF613 | Scrubber KD-610<br>Scrubber KF-633<br>Vacuum <b>Pumps</b><br>C603 <b>B&amp;C</b><br>Seal Drum |
| <b>0A6A</b>              | <b>HMDA Recovery Tank KF-6910</b>                 | <b>None</b>   | <b>None</b>                       | <b>None</b>   |
| 0A1B                     | Storage Tank KF-141                               | None  | 0A11                              | Scrubber KF-142   |
| 0A2B                     | Mix Tank KD-260                                   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | A10A                              | Scrubber KT-1001<br>(C1001)   |
| 0A2C                     | Surge Tank KD-266                                 | None  | A10A                              | Scrubber KT-1001<br>(C1001)   |
| 0A9A                     | Distillation Still KD-806                         | None  | 0A8C                              | Condenser C-803   |
| CONC                     | Concentrator KD-301                               | None  | A10A<br>0A15                      | Scrubber KT-1001<br>(C1001)<br>Flare KB-807   |
| RCU                      | Railcar Unloading Station                         | 391-3-1-.02(2)(n)   | 0A1H                              | Seal Pot  |
| <b>KM-750<br/>KF-749</b> | <b>Pellet Preheater<br/>Pellet Hopper Cyclone</b> | <b>391-3-1-.02(2)(b)<br/>391-3-1-.02(2)(e)</b>  | <b>KH-751</b>                     | <b>Preheater Filter</b>   |
| <b>KC-757<br/>KH-759</b> | <b>Hot Conveying<br/>Conveyor Separator</b>       | <b>391-3-1-.02(2)(b)<br/>391-3-1-.02(2)(e)</b>  | <b>None</b>                       | <b>None</b>   |
| <b>KD-760</b>            | <b>Solid-Stating PFR Silo</b>                     | <b>391-3-1-.02(2)(b)<br/>391-3-1-.02(2)(e)</b>  | <b>KH-761</b>                     | <b>Solid-Stating Silo<br/>Filter</b>  |

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| Emission Units             |                                       | Applicable Requirements/Standards      | Air Pollution Control Devices  |                               |
|----------------------------|---------------------------------------|--|--|-------------------------------|
| ID No.                     | Description                           |  | ID No.   | Description                   |
| KM-780                     | Pellet Cooler                         | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | KH-781   | Cooler Filter                 |
| KF-749                     | Pellet Hopper Cyclone                 | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | KM-703   | Pellet Cooler Chips Collector |
| KM-750                     | Pellet Heater                         | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | KH-751   | Preheater Filter              |
| KH-759                     | Conveyor Separator                    | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None   | None                          |
| KD-760                     | Solid Stating Silo                    | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | KH-761   | Solid Stating Filter          |
| <b>COMPOUNDING PROCESS</b> |                                       |  |  |                               |
| D6-H1                      | Polymer 1 Hopper with Inherent Filter | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None   | None                          |
| D6-H2                      | Polymer 2 Hopper with Inherent Filter |  |  |                               |
| D6-H3                      | Polymer 3 Hopper with Inherent Filter |  |  |                               |
| D6-H4                      | Additive 1 Hopper                     | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | D6-H4 B1<br>D6-H1b B1<br>D6-H2b B1<br>D6-H3b B1<br>D6-H5 BH1<br>D6-H6 BH1<br>D6-H7 BH<br>D6-H8 B2<br>D6-ZSB BH | Baghouses                     |
| D6-H1b                     | Additive 2 Hopper                     |  |  |                               |
| D6-H2b                     | Additive 3 Hopper                     |  |  |                               |
| D6-H3b                     | Additive 4 Hopper                     |  |  |                               |
| D6-H5                      | Additive 5 Hopper                     |  |  |                               |
| D6-H6                      | Additive 6 Hopper                     |  |  |                               |
| D6-H7                      | Additive 5 and 6 Hopper               |  |  |                               |
| D6-H8                      | Product Hopper                        |  |  |                               |
| D6-ZSB                     | Feed Hopper                           |  |  |                               |
| D6-ZSK-45                  | Extruder                              | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None   | None                          |
| D7-H1                      | Master Batch                          | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | D7-H1 BH   | Baghouse                      |
| D7-H2                      | Additive Pellet                       |  |  |                               |
| D7-H3                      | Polymer Pellet                        |  |  |                               |
| D7-H4                      | Rework                                |  |  |                               |
| D7-H5                      | Additive 1 Bag with Inherent Filter   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None   | None                          |
| D7-H6                      | PPS Hopper with Inherent Filter       |  |  |                               |
| D7-H7                      | PPS Hopper with Inherent Filter       |  |  |                               |
| D7-H8                      | PPS Hopper with Inherent Filter       |  |  |                               |
| D7-H9                      | PPS Hopper with Inherent Filter       |  |  |                               |
| D7-H10                     | Additive 1 with Inherent Filter       |  |  |                               |
| D7-H11                     | PPS Hopper with Inherent Filter       |  |  |                               |
| D7-H12                     | PPS Hopper with Inherent Filter       |  |  |                               |
| D7-H13                     | Additive 1 with Inherent Filter       |  |  |                               |

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|--|---|--|---|---|
| ID No.   | Description   |  | ID No.  | Description   |
| D7-H14<br>D7-H15<br>D7-H16<br>D7-H17<br>D7-H18<br>D7-H19<br>D7-H20 | Fiberglass Hopper<br>ZSK Feeder<br>ZSK Feeder<br>ZSK Feeder<br>ZSK Feeder<br>Product Hopper<br>Product Hopper   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)   | D7-H14 BH<br>D7-H15 BH<br>D7-H16 BH<br>D7-H17 BH<br>D7-H18 BH<br>D7-H19 BH<br>D7-H20 BH | Baghouses   |
| D7-H4b<br>D7-H5b<br>D7-H6b<br>D7-H7b<br>D7-H21                     | Rework with Inherent Filter<br>Polymer Pellet with Inherent Filter<br>Additive Pellet with Inherent Filter<br>Master Batch with Inherent Filter<br>Additive Powder with Inherent Filter | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)   | None  | None  |
| D7-ZSK70   | Extruder  | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)   | None  | None  |
| <b>SULFONE PROCESS</b>   |   |  |   |   |
| 00H1   | Hot Oil Heater #1   | 40 CFR 60 Subpart Dc<br>40 CFR 63 Subpart DDDDD<br>391-3-1-.02(2)(d)<br>391-3-1-.02(2)(g)                        | None  | None  |
| 00H2   | Hot Oil Heater #2   | 40 CFR 60 Subpart Dc<br>40 CFR 63 Subpart DDDDD<br>391-3-1-.02(2)(d)<br>391-3-1-.02(2)(g)                        | None  | None  |
| 00B8   | Waste Heat Boiler LM-731  | 40 CFR 60 Subpart Dc<br>40 CFR 63 Subpart DDDDD<br>391-3-1-.02(2)(d)<br>391-3-1-.02(2)(g)<br>391-3-1-.02(2)(ppp) | 0C8A<br>0C8B<br>0C7L  | Scrubber LT-740<br>Caustic Scrubber LT-750<br>Demister                            |
| 0C2B<br>0C2X   | Storage Tank LF-111<br>Storage Tank LF-115  | 40 CFR 63 Subpart FFFF <sup>2</sup>  | 0C2A  | Condenser LE-114  |
| 0C5D<br>0C5E   | Storage Tank LD-310<br>Storage Tank LD-314  | 40 CFR 63 Subpart FFFF <sup>2</sup>  | 0C5B  | Condenser LE-330  |
| 0C6F<br>0C4I   | Feed Tank LD-401<br>Feed Tank LD-458  | 40 CFR 63 Subpart FFFF <sup>2</sup>  | 0C6A<br><b>0A1A and 0A1B</b>  | Condenser LE-405<br><b>Voluntary Carbon Adsorption System LF-1673 and LF-1674</b> |
| 0C4H   | Feed Tank LD-430  | 40 CFR 63 Subpart FFFF <sup>2</sup>  | <b>0A1A and 0A1B</b>  | <b>Voluntary Carbon Adsorption System LF-1673 and LF-1674</b>                     |

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|--|---|--|---------------------------------|---|
| ID No.   | Description   |  | ID No.                          | Description   |
| 0C5F<br>0C5G<br>0C6J<br>0C6K<br>0C6L<br>0C7D<br>0C7E<br>0C8C<br>0C8F<br>C10H<br>0C7F<br>0C64 | Feed Tank LD-501<br>Tank LD-325<br>Tank LD-601<br>Feed Tank LD-621<br>Tank LD-651<br>Tank LD-701<br>Storage Drum LD-751<br>Tank LD-814<br>Tank LD-852<br>Drum LD-1201<br>Drum LD-712<br>Tank LD-645   | 40 CFR 63 Subpart FFFF <sup>2,3</sup>                    | 0C7A                            | Condenser LE-680  |
| T470<br>E471<br>E472<br>E473<br>E475<br>D475<br>D476<br>D477                                 | LT-470 Sulfone Dehydration Tower<br>LE-471 Sulfone Dehydration Tower Feed Preheater<br>LE-472 Sulfone Dehydration Tower Interchanger<br>LE-473 Sulfone Dehydration Tower Reboiler<br>LE-475 Sulfone Dehydration Tower Condenser<br>LD-475 Sulfone Dehydration Tower Condenser Accumulator Drum<br>LD-476 Sulfone Dehydration Tower Overheads Decanter<br>LD-477 Sulfone Dehydration Tower Vent Condenser Accumulator Drum | 40 CFR 63 Subpart FFFF <sup>2</sup>                      | C6F<br><br><b>0A1A and 0A1B</b> | C6F Condenser LE-477<br><b>Voluntary Carbon Adsorption System LF-1673 and LF-1674</b> |
| 0C7G<br>T485<br>H487<br>T495<br>H497   | Extraction Tower LT-445<br>Acid Extraction Column II LT-485<br>Acid Extraction Column II Bottoms Cleaner LH-487<br>Sulfone Neutralization and Wash Column II LT-495<br>Sulfone Neutralization and Wash Column II Bottoms Coalescer LH-497   | 40 CFR 63 Subpart FFFF <sup>2</sup>                      | 0C7B                            | Condenser LE-448  |
| 0C1E   | Tank LD-101   | 391-3-1-.02(2)(b)  | 0C1A                            | Scrubber LT-103   |
| 0C4D   | Reactor LR-201  | 40 CFR 63 Subpart FFFF <sup>2</sup><br>391-3-1-.02(2)(b) | 0C2G<br>0C4A                    | Condenser LE-208<br>Emergency Scrubber  |
| 0C2E   | Reactor Cooler LE-202   | 40 CFR 63 Subpart FFFF <sup>2</sup>                      | 0C2L                            | Condenser LE-210 (C4C)  |
| 0C3C<br>R385   | Tower LT-302<br>Reactor LR-385  | 40 CFR 63 Subpart FFFF <sup>2</sup>                      | 0C5A<br><b>0A1A and 0A1B</b>    | Condenser LE-309<br><b>Voluntary Carbon Adsorption System LF-1673 and LF-1674</b>     |



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|--|---|---------------------------------------|---|---|
| ID No.   | Description   |                                       | ID No.  | Description   |
| 0C6G   | Tower LT-460  | 40 CFR 63 Subpart FFFF <sup>2</sup>   | 0C6C<br><b>0A1A and<br/>0A1B</b>                  | Condenser LE-467<br><b>Voluntary<br/>Carbon<br/>Adsorption<br/>System LF-1673<br/>and LF-1674</b> |
| D505<br>D531<br>M542<br>D551   | LD505 Crude Crystallizer Feed Drum<br>LD531 Crude Crystallizer<br>LM542 Crude Centrifuge<br>LD551 Crude Reslurry Tank   | 40 CFR 63 Subpart FFFF <sup>2,3</sup> | <del>0C7C</del> <b>D576<br/>0A1A and<br/>0A1B</b> | Condenser LE-576<br><b>Voluntary<br/>Carbon<br/>Adsorption<br/>System LF-1673<br/>and LF-1674</b> |
| 0C7C<br>D564<br>D568<br>D612<br>D521<br>D523<br>M522<br>M642<br>LT-790<br>LM-637 | Tower LT-711<br>LD564 Primary Cryst Separator<br>LD568 Primary Cryst Hot Well<br>LD612 Concentrator Condensate Drum<br>LD521 Primary Settler<br>LD523 Centrate Condenser<br>LM522 Primary Centrifuge<br>LM642 Scavenger Centrifuge<br>MCB Cleanup Tower<br>LM637 Centrifuge | 40 CFR 63 Subpart FFFF <sup>2,3</sup> | 0C7A<br><b>0A1A and<br/>0A1B</b>                  | Condenser LE-680<br><b>Voluntary<br/>Carbon<br/>Adsorption<br/>System LF-1673<br/>and LF-1674</b> |
| LD-466<br>LD435<br>LD-800<br>LD-425<br>LD-721<br>LF-1618                         | Sulfone Dehydration Decanter LD-466<br>Sulfone Make-up Water Tank LD-435<br>Sulfone Melt Drum LD-800 (0C8G)<br>Sulfone Recycle Water Tank LD-425<br>Sulfone Tar Tank LD-721<br>Sulfone Treated Water Storage Tank LF-1618 (out of service)                                  | 40 CFR 63 Subpart FFFF <sup>2</sup>   | None  | None  |
| LD-671<br>D664<br>D668<br>LD-631   | LD-671 Scavenger Crystallizer<br>LD664 Scav Cryst Vac. Liq. Separator<br>LD668 Scav Cryst Hot Well<br>LD-631 Scavenger Crystallizer   | 40 CFR 63 Subpart FFFF <sup>2</sup>   | C7D<br><b>0A1A and<br/>0A1B</b>                   | Condenser LE-679<br><b>Voluntary<br/>Carbon<br/>Adsorption<br/>System LF-1673<br/>and LF-1674</b> |
| LT-790<br>LD-792<br>LR-350<br>LT-363   | MCB Cleanup Tower<br>Recycle MCB Purification<br>MIS Cracking<br>MIS Cracking Phase I & II  | 40 CFR 63 Subpart FFFF <sup>2</sup>   | 0S7D  | Condenser LE-368  |
| LD-367   | MIS Cracking Phase III  | 40 CFR 63 Subpart FFFF <sup>2</sup>   | CD363<br>C7D (Phase II & III)                     | Carbon Drum<br>Condenser LE-679   |
| LD-425   | MCB Cleanup Feed Drum (Phase III)   | 40 CFR 63 Subpart FFFF <sup>2</sup>   | 0C7A  | Condenser LE-680  |

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|--|--|--|-------------------------------|--------------------------|
| ID No.   | Description  |  | ID No.                        | Description              |
| LD-797   | MCB Cleanup Bottoms Drum (Phase III)   | 40 CFR 63 Subpart FFFF <sup>2</sup>    | C7D                           | Condenser LE-679         |
| LF-1601  | Sulfone Wastewater Equalization Tank LF-1601   | 40 CFR 63 Subpart FFFF <sup>2</sup>    | None                          | Carbon Bed Absorption    |
| LF-1615  | Carbon Bed Transfer Tank   | 40 CFR 63 Subpart FFFF <sup>2</sup>    | None                          | None                     |
| LF-1605  | Wastewater Decanter Vent Tank (out of service)   | 40 CFR 63 Subpart FFFF <sup>2</sup>    | None                          | None                     |
| EL   | Pumps, agitators, pressure relief devices, valves, connectors, and instrumentation systems   | 40 CFR 63 Subpart FFFF <sup>2</sup>    | None                          | None                     |
| SMW  | Maintenance Wastewater   | 40 CFR 63 Subpart FFFF <sup>2</sup>    | None                          | None                     |
| Sump 11  | Sump located West of LD-411  | 40 CFR 63 Subpart FFFF <sup>2</sup>    | None                          | None                     |
| Sump 16  | Sump located near LD-415   |  |                               |                          |
| Sump 23  | Sump located near LD-310/314 dike  |  |                               |                          |
| Sump 24  | Sump located near LF-1601 dike   |  |                               |                          |
| Sump 25  | Sump located near LF-1601 dike   |  |                               |                          |
| Sump 28  | Sump located near LD-310/314 dike  |  |                               |                          |
| LM-170<br>LE-172<br>LR-180<br>LE-182<br>LT-191   | Burner<br>Cooler<br>Converter<br>Condenser<br>Scrubber   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | LT-195                        | SO <sub>2</sub> Scrubber |
| None   | Raw Material Storage   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None                          | None                     |
| LT-485<br>LT-495   | Acid Extraction<br>Neutralizer   | None                                   | LE-488                        | Condenser                |
| LR-320<br>LE-331<br>LT-333<br>LD-335<br>LD-791   | Cracking Reactor<br>Condenser<br>Scrubber<br>Decanter<br>Surge Drum  | 40 CFR 63 Subpart FFFF <sup>2</sup>    | LE-347                        | Condenser                |
| LH-337   | MIS Cracking Line Coalescer  | 40 CFR 63 Subpart FFFF <sup>2</sup>    | None                          | None                     |
| LD-441<br>LR-375<br>LD-585<br>LD-688<br>LD-788<br>LD-880<br>LT-681<br>LT-781<br>LT-881<br>LD-890<br>LE-782 | Surge Drum<br>Sulfonylation Column<br>MCB Surge Drum<br>Surge Drum<br>Surge Drum<br>Surge Drum<br>Tower<br>Tower<br>Tower<br>Dissolver Drum<br>Condenser | None                                   | LE-580                        | Condenser                |
| LM-991   | Line II Melt Crystallizer #1   | None                                   | None                          | None                     |
| LM-992   | Line I Melt Crystallizer #2  | None                                   | None                          | None                     |
| None   | Production Granulation   | None                                   | C13G<br>C13H<br>C13I          | Baghouses                |

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|--------------------------------------|--|---|-------------------------------|---------------------------|
| ID No.                               | Description  |   | ID No.                        | Description               |
| LM-990                               | Melt Crystallizer and Feed Drum                                    | None  | None                          | None                      |
| None                                 | Molten Storage Tanks (3)   | None  | None                          | None                      |
| <b>KETASPIRE/NOVASPIRE PROCESS</b>   |  |   |                               |                           |
| PF-800                               | Emission Unit Group HE-1 HCL Storage Tank                          | 40 CFR 63 Subpart FFFF <sup>2</sup>   | SC-2                          | Scrubber                  |
| PR-200                               | Emission Unit Group HE-2 Process Reactor                           | 40 CFR 63 Subpart FFFF <sup>2</sup>   | SC-1                          | Scrubber                  |
| PM-250                               | Emission Unit Group DE-4 HQ Unloading Station                      | 40 CFR 63 Subpart FFFF <sup>2</sup><br>391-3-1-.02(2)(n)                                  | BH-4                          | Baghouse                  |
| PH-245<br>PH-255                     | Emission Unit Group DE-8 DFBP and HQ Conveying Line                | 40 CFR 63 Subpart FFFF <sup>2</sup><br>391-3-1-.02(2)(n)                                  | BH-8<br>BH-9                  | Baghouse                  |
| PF-252<br>PF-260                     | Emission Unit Group DE-11 HQ Storage Tank and Mix Monomer Bin Vent | 40 CFR 63 Subpart FFFF <sup>2</sup><br>391-3-1-.02(2)(n)                                  | BH-11                         | Baghouse                  |
| PM-300<br>PM-301<br>PM-302           | Emission Unit Group DE-13 Fugitive Dust Collector                  | 40 CFR 63 Subpart FFFF <sup>2</sup><br>391-3-1-.02(2)(n)                                  | BH-13                         | Baghouse                  |
| PM-710                               | Emission Unit Group DE-19 Product Packaging                        | 391-3-1-.02(2)(n)   | BH-19                         | Baghouse                  |
| BE-01                                | Hot Oil Heater   | 40 CFR 63 Subpart DDDDD<br>391-3-1-.02(2)(d)<br>391-3-1-.02(2)(g)                         | None                          | None                      |
| BE-02                                | Boiler   | 40 CFR 60 Subpart Dc<br>40 CFR 63 Subpart DDDDD<br>391-3-1-.02(2)(d)<br>391-3-1-.02(2)(g) | None                          | None                      |
| PF-502<br>PF-503<br>PF-504<br>PF-506 | Slop Tanks   | None  | None                          | None                      |
| PD-401<br>PD-402<br>PD-403<br>PD-404 | Solvent Tanks  | None  | CD-1                          | Non-VOC Solvent Condenser |
| PH-2261 /<br>PF-2262                 | Raw Material Bin Vent  | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | PH-2261 / PF-2262 BH          | Baghouse                  |
| PH-2241 /<br>PF-2242                 | Raw Material Bin Vent  | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | PH-2241 / PF-2242 BH          | Baghouse                  |
| PH / PM-240                          | Raw Material Sack Unloading Vent                                   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | PH / PM-240 BH                | Baghouse                  |
| PF-2260                              | Monomer Bin Vent   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | PF-2260 BH                    | Baghouse                  |
| PH-2251 /<br>PF-2252                 | Raw Material Bin Vent 2  | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | PH-2251 / PF-2252 BH          | Baghouse                  |
| PF-260                               | Monomer Bin Vent   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | PF-260 BH                     | Baghouse                  |
| PD-2203<br>PD-2204                   | Raw Material Termination Pot Vents                                 | None  | None                          | None                      |
| PD-2210                              | Raw Material Bin Vent  | None  | None                          | None                      |
| PD-286                               | Molten Raw Material Bin Vent                                       | None  | None                          | None                      |

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|-----------------------------|--|---|-------------------------------|---|
| ID No.                      | Description  |   | ID No.                        | Description   |
| PM-755                      | UP Ground Powder                                   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | PM-755 BH                     | Baghouse  |
| PM-765                      | PEEK Ground Powder                                 | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | PM-765 BH                     | Baghouse  |
| PR-2200                     | Process Reactor                                    | 40 CFR 63 Subpart FFFF <sup>2</sup>   | SC-3                          | Reactor Scrubber  |
| PM-3100                     | Hot Oil Heater                                     | 40 CFR 63 Subpart DDDDD<br>391-3-1-.02(2)(d)<br>391-3-1-.02(2)(g)                               | None                          | None  |
| PM-2701 /<br>2714           | Fluidized Bed Dryer                                | 391-3-1-.02(2)(e)   | None                          | None  |
| PM-2700                     | APNF   | None  | None                          | None  |
| PD-440                      | Extractor  | None  | CD-3                          | Extractor Condenser   |
| PD-2605                     | Distillation Columns,<br>solvent tanks             | None  | CD-3                          | Extractor Condenser   |
| PT-680                      | Distillation Columns,<br>solvent tanks             | None  | CD-1                          | Non-VOC Solvent Condenser   |
| <b>XYDAR/VERIAN PROCESS</b> |  |   |                               |   |
| 00P1                        | Hot Oil Heater H-601                               | 40 CFR 63 Subpart DDDDD<br>391-3-1-.02(2)(d)<br>391-3-1-.02(2)(g)                               | None                          | None  |
| 00P2                        | Hot Oil Heater H-603                               | 40 CFR 63 Subpart DDDDD<br>391-3-1-.02(2)(d)<br>391-3-1-.02(2)(g)                               | None                          | None  |
| RX01                        | Reactors R-201 A/B/C                               | 40 CFR 63 Subpart FFFF <sup>A,2</sup><br>(Xydar Only)<br>391-3-1-.02(2)(b)<br>391-3-1-.02(2)(c) | 0X2T                          | Caustic Scrubber T-701  |
| 0X2G                        | Mixer R-202A                                       | 40 CFR 63 Subpart FFFF <sup>A,2</sup><br>(Xydar Only)<br>391-3-1-.02(2)(b)<br>391-3-1-.02(2)(c) | 0X2T<br>0X2U                  | Caustic Scrubber T-701<br>Venturi Scrubber ME- 252A               |
| 0X2H                        | Mixer R-202B                                       | 40 CFR 63 Subpart FFFF <sup>A,2</sup><br>(Xydar Only)<br>391-3-1-.02(2)(b)<br>391-3-1-.02(2)(c) | 0X2T<br>0X2V                  | Caustic Scrubber T-701<br>Venturi Scrubber ME- 252B               |
| 0X2I                        | Mixer R-202C                                       | 40 CFR 63 Subpart FFFF <sup>A,2</sup><br>(Xydar Only)<br>391-3-1-.02(2)(b)<br>391-3-1-.02(2)(c) | 0X2T<br>0X2W                  | Caustic Scrubber T-701<br>Venturi Scrubber ME- 252C               |
| RM01<br>RM02<br>RM03        | Raw Material Super Sack Unloading V109, V110, V111 | 40 CFR 63 Subpart FFFF <sup>A,2</sup><br>(Xydar Only)<br>391-3-1-.02(2)(n)                      | 0X1P                          | Baghouse F-146  |
| <b>UDEL PROCESS</b>         |  |   |                               |   |
| 0U4A<br>0U4B                | Tank PD-411<br>Tank PD-412                         | 40 CFR 60 Subpart Kb  | 00C1<br>00C2<br>00C3          | Udel Vent Condenser<br>Udel Thermal Oxidizer<br>Acid Gas Scrubber |

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|------------------------------|---|--|-------------------------------|---|
| ID No.                       | Description   |  | ID No.                        | Description   |
| 0U6A<br>0U6B                 | Tank PD-603<br>Tank PD-604  | 40 CFR 60 Subpart Kb                   | 00C1<br>00C2<br>00C3          | Udel Vent<br>Condenser<br>Udel Thermal<br>Oxidizer<br>Acid Gas Scrubber |
| 00C2                         | Udel Thermal Oxidizer   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(g) | 00C3                          | Acid Gas Scrubber   |
| 0U4D                         | Reactor PR-401  | 391-3-1-.02(2)(b)                      | 00C1<br>00C2<br>00C3          | Udel Vent<br>Condenser<br>Udel Thermal<br>Oxidizer<br>Acid Gas Scrubber |
| 0U7I                         | Column PT-715   | None                                   | 00C1<br>00C2<br>00C3          | Udel Vent<br>Condenser<br>Udel Thermal<br>Oxidizer<br>Acid Gas Scrubber |
| 0U4E                         | Drum PD-425   | None                                   | 00C1<br>00C2<br>00C3          | Udel Vent<br>Condenser<br>Udel Thermal<br>Oxidizer<br>Acid Gas Scrubber |
| 0U2A                         | Tank PD-202   | None                                   | 00C1<br>00C2<br>00C3          | Udel Vent<br>Condenser<br>Udel Thermal<br>Oxidizer<br>Acid Gas Scrubber |
| 0U5A<br>0U5B                 | Tank PD-501<br>Tank PD-502  | None                                   | None                          | None  |
| 0U5C                         | Tank PD-503   | None                                   | 00C1<br>00C2<br>00C3          | Udel Vent<br>Condenser<br>Udel Thermal<br>Oxidizer<br>Acid Gas Scrubber |
| 0U6C<br>0U7A<br>0U7B<br>0U7D | Tank PD-610<br>Tank PD-701<br>Tank PD-706<br>Tank PD-719                                      | None                                   | None                          | None  |
| 0U7G                         | Tank PD-730   | None                                   | 00C1<br>00C2<br>00C3          | Udel Vent<br>Condenser<br>Udel Thermal<br>Oxidizer<br>Acid Gas Scrubber |
| 0U7H                         | Tank PD-735   | None                                   | None                          | None  |
| <b>PUSH PROCESS</b>          |   |  |                               |   |
| FD01                         | Unit FD-1220: mDBC Storage  | 40 CFR 63 Subpart FFFF <sup>2</sup>    | FA01                          | Carbon Drum   |
| FD02                         | Unit FD-1210:2.5-DCBP Mix Tank  | 40 CFR 63 Subpart FFFF <sup>2</sup>    | FE01<br>FT01<br>FA01          | Condenser<br>Scrubber<br>Carbon Drum                                    |
| FD05<br>FD06<br>FD07         | Unit FR-100: Polymerization Reactor<br>Unit FD-150: Quench Tank<br>Unit FD-130: Catalyst Tank | 40 CFR 63 Subpart FFFF <sup>2</sup>    | FE02<br>FA06                  | Condenser<br>Carbon Drum  |

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|--|--|-------------------------------------|-------------------------------|--|
| ID No.   | Description  |                                     | ID No.                        | Description  |
| FD08   | Unit FR-200: Digestion Tank  | 40 CFR 63 Subpart FFFF <sup>2</sup> | FT02<br>FA06                  | Scrubber<br>Carbon Drum<br>Membrane Control (HSS)              |
| FD09<br>FD11<br>FD12   | Unit FD-215: Feed Tank<br>Unit FD-300: Polymer Slurry Preparation Tank<br>Unit FD-310: Filtrate Collection Tank  | 40 CFR 63 Subpart FFFF <sup>2</sup> | FE02<br>FA06                  | Condenser<br>Carbon Drum                                       |
| FD13   | Unit FD-400: 1 <sup>st</sup> Wash Tank   | 40 CFR 63 Subpart FFFF <sup>2</sup> | FE03<br>FT03<br>FA07          | Condenser<br>Scrubber<br>Membrane Control (HSS)                |
| FD14<br>FD15<br>FD16<br>FD17<br>FD18<br>FD19<br>FD20<br>FD21<br>FD22<br>FD23<br>FD24<br>FD25<br>FD26<br>FD27 | Unit FD-410: Solvent Hold Tank<br>Unit FD-415: Solvent Hold Tank<br>Unit FD-420: 2 <sup>nd</sup> Wash Tank<br>Unit FD-500: Heat Treatment Vessel<br>Unit FD-605: Dryer Filtrate Tank<br>Unit FD-600: Polymer Dryer<br>Unit FD-710: Antisolvent Batch Column<br>Unit FD-719: Batch Column Receiver<br>Unit FD-720: Process Hold Tank<br>Unit FD-727: Condensate Receiver<br>Unit FD-725: Evaporator<br>Unit FD-709: Spray Condenser<br>Unit FD-731: Batch Still<br>Unit FD-740: Batch Column Receiver | 40 CFR 63 Subpart FFFF <sup>2</sup> | FE03<br>FT03<br>FA07          | Condenser<br>Scrubber<br>Carbon Drum<br>Membrane Control (HSS) |
| FD28   | Units FD-750 and FD-770: Solvent Hold Tank   | 40 CFR 63 Subpart FFFF <sup>2</sup> | FE02<br>FA06                  | Condenser<br>Carbon Drum                                       |
| FD34<br>FD35<br>FD36   | Unit FT-790: Distillation Column<br>Unit FD-793: Distillate Receiver<br>Unit FD-905: Vent Header KO Pot  | 40 CFR 63 Subpart FFFF <sup>2</sup> | FE03<br>FT03<br>FA07          | Condenser<br>Scrubber<br>Carbon Drum<br>Membrane Control (HSS) |
| FM01   | Alcohol Tote   | 40 CFR 63 Subpart FFFF <sup>2</sup> | FA04                          | Carbon Drum  |
| FM03   | HCl Tote   | 40 CFR 63 Subpart FFFF <sup>2</sup> | None                          | None   |
| FM04   | Unit FM-312: Polymer Slurry Centrifuge   | 40 CFR 63 Subpart FFFF <sup>2</sup> | FE02<br>FA06                  | Condenser<br>Carbon Drum                                       |
| FF03<br>FF04   | Unit FF-700: Spent Solvent Storage Tank<br>Unit FF-780: Alcohol Storage Tank   | 40 CFR 63 Subpart FFFF <sup>2</sup> | FE03<br>FT03<br>FA07          | Condenser<br>Scrubber<br>Carbon Drum<br>Membrane Control (HSS) |

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|-----------------------------|---|--|---|--|
| ID No.                      | Description                             |  | ID No.                                  | Description  |
| FF05                        | Unit FF-705: Solvent Hold Tank          | 40 CFR 63 Subpart FFFF <sup>2</sup>  | FE03<br>FA07                            | Condenser<br>Carbon Drum<br>Membrane Control (HSS)             |
| FF06                        | Unit FF-800: Wastewater Collection Tank | 40 CFR 63 Subpart FFFF <sup>2</sup>  | FE03<br>FT03<br>FA07                    | Condenser<br>Scrubber<br>Carbon Drum<br>Membrane Control (HSS) |
| FF07                        | Terminating Agent Tank                  | 40 CFR 63 Subpart FFFF <sup>2</sup>  | FE02<br>FA06                            | Condenser<br>Carbon Drum                                       |
| <b>PROJECT SARSAPARILLA</b> |   |  |   |  |
| HD-1800<br>HD-1801          | Thermal Oxidizer Gas Buffers            | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)   | HB-1800/1801<br>HT-1800/1801            | Thermal Oxidizer Scrubbers                                     |
| HD-1810                     | Thermal Oxidizer Heavies                | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)   | HB-1800/1801<br>HT-1800/1801            | Thermal Oxidizer Scrubbers                                     |
| HD-102<br>A/B/C/D           | R142b Storage Tanks                     | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)   | None                                    | None   |
| HD-152<br>A/B/C/D           | VDF Storage Tanks                       | 40 CFR 60 Subpart Kb<br>391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)   | None                                    | None   |
| HF-1811<br>A/B/C            | HCl Storage Tanks                       | 40 CFR 63 Subpart FFFF <sup>1</sup><br>40 CFR 63 Subpart NNNNN<br>391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | HT-1811                                 | HCL Storage Scrubber   |
| HT-203<br>HT-223            | VDF Caustic Scrubber                    | 40 CFR 63 Subpart FFFF<br>40 CFR 63 Subpart NNNNN<br>391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)              | HB-1800/1801<br>HT-1800/1801            | Thermal Oxidizer*** Scrubbers                                  |
| HD-212<br>HD-204<br>HD-232  | Pyrolysis Cyclones                      | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)   | HT-1810<br>HB-1800/1801<br>HT-1800/1801 | Emergency Relief Scrubber** OR Thermal Oxidizer*** Scrubbers   |
| HD-213<br>HD-205<br>HD-233  | Pyrolysis Cyclone Solids Collectors     | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)   | HT-1810<br>HB-1800/1801<br>HT-1800/1801 | Emergency Relief Scrubber** OR Thermal Oxidizer*** Scrubbers   |
| HE-213<br>HE-223<br>HE-233  | MP Steam Production Boilers             | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)   | None                                    | None   |
| HB-211<br>HB-221<br>HB-231  | Cracking Furnaces                       | 40 CFR 63 Subpart DDDDD<br>391-3-1-.02(2)(b)<br>391-3-1-.02(2)(d)<br>391-3-1-.02(2)(e)                   | HT-1810                                 | Emergency Relief Scrubber** OR Thermal Oxidizer*** Scrubbers   |
| HD-306<br>HD-326            | R142b Rectification Reflux Drum         | 40 CFR 63 Subpart FFFF<br>391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)   | HB-1800/1801<br>HT-1800/1801            | Thermal Oxidizer Scrubbers                                     |
| HT-306<br>HT-326            | R142b Rectification Column              | 40 CFR 63 Subpart FFFF<br>391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)   | HB-1800/1801<br>HT-1800/1801            | Thermal Oxidizer*** Scrubbers                                  |

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|--|---|---|--|--|
| ID No.   | Description   |   | ID No.   | Description  |
| HT-305 <sup>1</sup><br>HT-325  | Lights Column   | 40 CFR 63 Subpart FFFF <sup>1</sup><br>391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | HB-1800/1801<br>HT-1800/1801                             | Thermal Oxidizer***<br>Scrubbers                                   |
| HT-304<br>HT-324   | VDF Rectification Column                              | 40 CFR 63 Subpart FFFF<br>391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)              | HB-1800/1801<br>HT-1800/1801                             | Thermal Oxidizer***<br>Scrubbers                                   |
| HC-203<br>HC-233   | Organic Gas Compressor                                | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | HB-1800/1801<br>HT-1800/1801                             | Thermal Oxidizer<br>Scrubbers                                      |
| HD-294<br>HD-296   | Water Accumulation Tank                               | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | HB-1800/1801<br>HT-1800/1801                             | Thermal Oxidizer***<br>Scrubbers                                   |
| HD-293<br>HD-295   | Molecular Sieve Dryer<br>Regeneration Water Separator | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | None   | None   |
| HD-203<br>A/B/C<br>HD-223<br>A/B/C   | Molecular Sieve Dryer                                 | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | HB-1800/1801<br>HT-1800/1801                             | Thermal Oxidizer<br>Scrubbers                                      |
| HT-201<br>HT-221   | HCl Absorption Column                                 | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | HT-1810<br>HB-1800/1801<br>HT-1800/1801                  | Emergency Relief Scrubber** OR<br>Thermal Oxidizer***<br>Scrubbers |
| HT-202<br>HT-222   | HCl Absorption Lateral Stripper                       | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | HT-1810<br>HB-1800/1801<br>HT-1800/1801                  | Emergency Relief Scrubber** OR<br>Thermal Oxidizer***<br>Scrubbers |
| HT-200 A/B<br>HT-230 A/B   | Alumina Tower   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | HT-1810<br>HB-1800/1801<br>HT-1800/1801                  | Emergency Relief Scrubber** OR<br>Thermal Oxidizer***<br>Scrubbers |
| HF-771<br>HF-772<br>HM-700<br>HN-785<br>HF-773<br>HF-774<br>HF-775<br>HF-776 | Powder Storage and Distribution System                | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | HH-771<br>HH-772<br>HH-773<br>HH-774<br>HH-775<br>HH-776 | Silo 1/2/3/4/5/6<br>Baghouses                                      |
| HD-505<br>HD-506   | Degassing Vacuum System Liquid/Gas Separator          | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | HB-1800/1801<br>HT-1800/1801                             | Thermal Oxidizer***<br>Scrubbers                                   |
| HC-468   | Moist Process Suction Blower                          | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | None   | None   |
| HT-865   | Alkaline Scrubber                                     | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | HB-1800/1801<br>HT-1800/1801                             | Thermal Oxidizer***<br>Scrubbers                                   |
| HD-500   | Purging Vacuum System Liquid/Gas Separator            | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | HB-1800/1801<br>HT-1800/1801                             | Thermal Oxidizer***<br>Scrubbers                                   |



## Title V Permit Amendment

Solvay Specialty Polymers USA, LLC

Permit No.: 2821-245-0126-V-06-1

| Emission Units                         |  | Applicable Requirements/Standards      | Air Pollution Control Devices |                                  |
|--|--|--|-------------------------------|----------------------------------|
| ID No.                                 | Description  |  | ID No.                        | Description                      |
| HD-852                                 | Recovered COMO1 Tank   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | HB-1800/1801<br>HT-1800/1801  | Thermal Oxidizer***<br>Scrubbers |
| HD-514<br>HD-524<br>HD-534             | Line 1 Degassers   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None                          | None                             |
| HD-544<br>HD-554<br>HD-564             | Line 2 Degassers   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None                          | None                             |
| HR-510<br>HR-520<br>HR-530             | Line 1 Polymerization Reactors                               | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None                          | None                             |
| HR-540<br>HR-550<br>HR-560             | Line 2 Polymerization Reactors                               | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None                          | None                             |
| HD-510 A/B<br>HD-520 A/B<br>HD-530 A/B | Line 1 Inhibitor Tanks 1 and 2                               | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None                          | None                             |
| HD-540 A/B<br>HD-550 A/B<br>HD-560 A/B | Line 2 Inhibitor Tanks 1 and 2                               | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None                          | None                             |
| HM-440                                 | Reactor Washing System Pressurization Package                | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None                          | None                             |
| HM-464                                 | ALC2 Bag Dump Station  | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | HP-478                        | Process Suction Baghouse****     |
| HD-464                                 | ALC2 Prep and Loading Tank                                   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None                          | None                             |
| HD-422                                 | X3 Prep and Feeding Vessel                                   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None                          | None                             |
| HF-450                                 | COMO3 Batching Tank  | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None                          | None                             |
| HF-452                                 | COMO3 Batching Tank 2  | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None                          | None                             |
| HF-460                                 | COMO7 Prep Tank  | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None                          | None                             |
| HD-461                                 | COMO6 Tank   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None                          | None                             |
| HD-428                                 | SA4 Loading Tank   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None                          | None                             |
| HM-428                                 | SA4 Bag Dump Station   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | HP-478                        | Process Suction Baghouse****     |
| HD-458                                 | SA4 Prep Tank  | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None                          | None                             |
| HD-462                                 | SA 2/3 Prep Tank   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None                          | None                             |
| HM-463                                 | SA 2/3 Bag Dump Station                                      | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | HP-478                        | Process Suction Baghouse****     |
| HD-463                                 | SA2 Loading Tank   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None                          | None                             |
| HD-465                                 | SA3 Loading Tank   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | None                          | None                             |
| HD-415<br>HD-474<br>HD-478             | MONO Storage Tank<br>MONO Storage Tank<br>COMO1 Storage Tank | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | HB-1800/1801<br>HT-1800/1801  | Thermal Oxidizer***<br>Scrubbers |

**Title V Permit Amendment**

Solvay Specialty Polymers USA, LLC

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| Emission Units   |  | Applicable Requirements/Standards                                | Air Pollution Control Devices                            |                               |
|--|--|--|--|-------------------------------|
| ID No.   | Description  |  | ID No.   | Description                   |
| HD-401<br>HR-402   | X1 Storage Vessel<br>X1 Dosing Vessel  | 40 CFR 63 Subpart FFFF<br>391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | HT-493   | X2 and X4 Scrubber            |
| HR-474<br>HR-476<br>HD-476   | X2 and X4 Reactor<br>X2 Dosing Vessel<br>X2 Storage Vessel                                     | 40 CFR 63 Subpart FFFF<br>391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e) | HT-493   | X2 and X4 Scrubber            |
| HD-485   | X4 Storage Tank  | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)                           | None   | None                          |
| HF-643<br>HF-645   | Line 2 Washing Dewatering Device Liquid/Gas Separator  | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)                           | None   | None                          |
| HD-866<br>HD-867   | MONO Recuperation System Dryer 1<br>MONO Recuperation System Dryer 2                           | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)                           | HB-1800/1801<br>HT-1800/1801                             | Thermal Oxidizer Scrubbers    |
| HD-856 A/B<br>HD-857<br>HD-858 A/B   | COD Reduction Stripping Vessel<br>Wastewater to Stripping Vessel<br>Stripped Wastewater Vessel | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)                           | None   | None                          |
| HC-875/A   | Gas Compressor   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)                           | HB-1800/1801<br>HT-1800/1801                             | Thermal Oxidizer Scrubbers    |
| HD-876   | Liquefied Gas Tank   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)                           | HB-1800/1801<br>HT-1800/1801                             | Thermal Oxidizer*** Scrubbers |
| HD-878   | Off Gas Buffer Tank  | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)                           | HB-1800/1801<br>HT-1800/1801                             | Thermal Oxidizer Scrubbers    |
| HT-870   | Lights Separation Column   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)                           | HB-1800/1801<br>HT-1800/1801                             | Thermal Oxidizer Scrubbers    |
| HT-880   | MONO Separation Column   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)                           | HB-1800/1801<br>HT-1800/1801                             | Thermal Oxidizer*** Scrubbers |
| HD-885   | Recycled MONO Tank   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)                           | HB-1800/1801<br>HT-1800/1801                             | Thermal Oxidizer*** Scrubbers |
| HT-830   | COMO1 Column   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)                           | HB-1800/1801<br>HT-1800/1801                             | Thermal Oxidizer Scrubbers    |
| None   | Wastewater pH Neutralization Process   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)                           | None   | None                          |
| HF-710<br>HF-720<br>HF-730<br>HF-740<br>HM-711<br>HM-721<br>HM-731<br>HM-741 | Packaging Silos and Machines   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)                           | HH-710<br>HH-720<br>HH-730<br>HH-740<br>HP-775<br>HP-779 | Baghouses                     |
| HF-423   | Line 2 COMO3 Tank  | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)                           | None   | None                          |

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Solvay Specialty Polymers USA, LLC

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| Emission Units   |   | Applicable Requirements/Standards   | Air Pollution Control Devices |                        |
|------------------|---|---|-------------------------------|------------------------|
| ID No.           | Description   |   | ID No.                        | Description            |
| HF-413           | Line 1 COMO3 Tank   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | None                          | None                   |
| HF-440           | Concentrated COMO3 Tank   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | HT-493                        | X2 and X4 Scrubber     |
| HC-467 A/B       | Water Degassing Vacuums   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | None                          | None                   |
| HF-610<br>HF-611 | Line 1 Slurry Treatment Tanks                                       | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | HE-680                        | Vent Condenser         |
| HF-620<br>HF-621 | Line 2 Slurry Treatment Tanks                                       | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | HE-680                        | Vent Condenser         |
| HF-677<br>HF-673 | Line 1 Washing Dewatering Device Vacuum System Liquid/Gas Separator | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | None                          | None                   |
| HM-611           | Line 1 Washing Dewatering Device                                    | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | None                          | None                   |
| HM-621           | Line 2 Washing Dewatering Device                                    | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | None                          | None                   |
| HD-610           | Line 1 Dryer  | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | HH-610                        | Line 1 Drying Baghouse |
| HF-687<br>HF-685 | Line 1 Dryer Dewatering Device Vacuum System Liquid/Gas Separator   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | None                          | None                   |
| HF-686           | Line 1 Recovered Water Storage Tank                                 | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | None                          | None                   |
| HM-612           | Line 1 Dryer Dewatering Device                                      | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | None                          | None                   |
| HF-612<br>HF-613 | Line 1 Slurry Storage   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | None                          | None                   |
| HD-620           | Line 2 Dryer  | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | HH-620                        | Line 2 Drying Baghouse |
| HF-697<br>HF-695 | Line 2 Dryer Dewatering Device Vacuum System Liquid/Gas Separator   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | None                          | None                   |
| HF-696           | Line 2 Recovered Water Storage Tank                                 | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | None                          | None                   |
| HM-622           | Line 2 Dryer Dewatering Device                                      | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | None                          | None                   |
| HF-622<br>HF-623 | Line 2 Slurry Storage   | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | None                          | None                   |
| HT-862<br>HD-871 | Ethanol Tower<br>Ethanol Storage                                    | 391-3-1-.02(2)(b)<br>391-3-1-.02(2)(e)  | None                          | None                   |
| UB-1310          | Boiler UB-1310  | 40 CFR 60 Subpart Dc<br>40 CFR 63 Subpart DDDDD<br>391-3-1-.02(2)(d)<br>391-3-1-.02(2)(g) | None                          | None                   |

\* Generally applicable requirements contained in this permit may also apply to emission units listed above. The lists of applicable requirements/standards are intended as a compliance tool and may not be definitive.

\*\*Flow to emergency scrubber is only during malfunctions.

\*\*\*Any emissions will ultimately end in the thermal oxidizer after traveling through other process equipment.

\*\*\*\*Baghouse in use when dumping powder into tanks.

<sup>1</sup>MON Group 1

<sup>2</sup>MON Group 2

<sup>3</sup>MON Group 2 with TRE between 1.9 and 5.0

<sup>A</sup>The Xydar process is subject to MON only when using HAP as a raw material.

### 3.2 Equipment Emission Caps and Operating Limits

#### MODIFIED CONDITION

3.2.1 The Permittee shall not discharge or cause the discharge into the atmosphere from the combination of all non-exempt Sulfur Dioxide-emitting equipment, including the 100 Area Sulfone raw material production process and the combustion equipment listed below, any gases which contain 100 tons or more of Sulfur Dioxide emissions during any consecutive 12-month period, or 100 tons or more of Nitrogen Oxide emissions during any consecutive 12-month period.

[40 CFR 52.21 Avoidance]

| Source Code    | Process Unit               | Equipment                       |
|----------------|----------------------------|---------------------------------|
| 0A15           | Amodel                     | Flare KB-807                    |
| 0A17           | Amodel                     | Hot Oil Heater KB-901           |
| 0A21           | Amodel                     | Boiler UB-1210                  |
| <b>0A22</b>    | <b>Amodel</b>              | <b>Boiler UB-1210-1</b>         |
| 00B8           | Sulfone                    | Waste Heat Boiler LM-731        |
| 00H1           | Sulfone                    | Hot Oil Heater #1               |
| 00H2           | Sulfone                    | Hot Oil Heater #2               |
| 00P1           | Xydar                      | Hot Oil Heater H-601            |
| 00P2           | Xydar                      | Hot Oil Heater H-603            |
| 00C2           | Udel                       | Udel Thermal Oxidizer           |
| BE-01          | KetaSpire/NovaSpire        | Hot Oil Heater                  |
| BE-02          | KetaSpire/NovaSpire        | Boiler                          |
| <b>PM-3100</b> | <b>KetaSpire/NovaSpire</b> | <b>Hot Oil Heater</b>           |
| <b>UB-1310</b> | <b>Sarsaparilla</b>        | <b>Boiler UB-1310</b>           |
| <b>HB-211</b>  | <b>Sarsaparilla</b>        | <b>Furnace HB-211</b>           |
| <b>HB-221</b>  | <b>Sarsaparilla</b>        | <b>Furnace HB-221</b>           |
| <b>HB-231</b>  | <b>Sarsaparilla</b>        | <b>Furnace HB-231</b>           |
| <b>HB-1800</b> | <b>Sarsaparilla</b>        | <b>Thermal Oxidizer HB-1800</b> |
| <b>HB-1801</b> | <b>Sarsaparilla</b>        | <b>Thermal Oxidizer HB-1801</b> |

### 3.3 Equipment Federal Rule Standards

#### MODIFIED CONDITION

3.3.4 The Permittee shall comply with all applicable provisions of the New Source Performance Standards as found in 40 CFR 60 Subpart A – “General Provisions” and 40 CFR 60 Subpart Dc – “Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units” for all units listed below.

[40 CFR 60 Subpart Dc]

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| Source Code    | Process Unit        | Equipment                |
|----------------|---------------------|--------------------------|
| 0A17           | Amodel              | Hot Oil Heater KB-901    |
| 0A21           | Amodel              | Boiler UB-1210           |
| <b>0A22</b>    | <b>Amodel</b>       | <b>Boiler UB-1210-1</b>  |
| 00B8           | Sulfone             | Waste Heat Boiler LM-731 |
| 00H1           | Sulfone             | Hot Oil Heater #1        |
| 00H2           | Sulfone             | Hot Oil Heater #2        |
| BE-02          | KetaSpire/NovaSpire | Boiler                   |
| <b>UB-1310</b> | <b>Sarsaparilla</b> | <b>Boiler UB-1310</b>    |

### MODIFIED CONDITION

- 3.3.5 The Permittee shall not fire any fuel oil that contains more than 0.5 percent sulfur, by weight, and the fuel oil shall meet the specifications for “distillate” fuel oil (No. 1 or No. 2) as defined by the American Society for Testing and Materials (ASTM) in ASTM D396 – “Standard Specifications for Fuel Oils” in any equipment listed below. The fuel oil sulfur limit applies at all times, including periods of startup, shutdown, or malfunction, [40 CFR 60.42c(d) and (i), 391-3-1-.02(2)(g) subsumed]

| Source Code    | Process Unit               | Equipment               |
|----------------|----------------------------|-------------------------|
| 0A17           | Amodel                     | Hot Oil Heater KB-901   |
| 0A21           | Amodel                     | Boiler UB-1210          |
| <b>0A22</b>    | <b>Amodel</b>              | <b>Boiler UB-1210-1</b> |
| 00H1           | Sulfone                    | Hot Oil Heater #1       |
| 00H2           | Sulfone                    | Hot Oil Heater #2       |
| BE-02          | KetaSpire/NovaSpire        | Boiler                  |
| <b>PM-3100</b> | <b>KetaSpire/NovaSpire</b> | <b>Hot Oil Heater</b>   |
| <b>UB-1310</b> | <b>Sarsaparilla</b>        | <b>Boiler UB-1310</b>   |

### MODIFIED CONDITION

- 3.3.6 The Permittee shall not discharge or cause the discharge into the atmosphere from any of the equipment listed below any gases which exhibit twenty percent (20%) opacity or greater, except for one six-minute period per hour of not more than twenty-seven percent (27%) opacity. The opacity standard applies at all times, except during periods of startup, shutdown, or malfunction. [40 CFR 60.43(c) and (d), 391-3-1-.02(2)(d)]

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| Source Code    | Process Unit               | Equipment               |
|----------------|----------------------------|-------------------------|
| 0A21           | Amodel                     | Boiler UB-1210          |
| <b>0A22</b>    | <b>Amodel</b>              | <b>Boiler UB-1210-1</b> |
| 00H1           | Sulfone                    | Hot Oil Heater #1       |
| 00H2           | Sulfone                    | Hot Oil Heater #2       |
| 00B8           | Sulfone                    | Waste Heat Boiler       |
| BE-02          | KetaSpire/NovaSpire        | Boiler                  |
| <b>PM-3100</b> | <b>KetaSpire/NovaSpire</b> | <b>Hot Oil Heater</b>   |
| <b>UB-1310</b> | <b>Sarsaparilla</b>        | <b>Boiler UB-1310</b>   |
| <b>HB-211</b>  | <b>Sarsaparilla</b>        | <b>Furnace HB-211</b>   |
| <b>HB-221</b>  | <b>Sarsaparilla</b>        | <b>Furnace HB-221</b>   |
| <b>HB-231</b>  | <b>Sarsaparilla</b>        | <b>Furnace HB-231</b>   |

### MODIFIED CONDITION

3.3.8 [Deleted]

### 40 CFR 63 Subpart FFFF and UU – Equipment Leaks

### MODIFIED CONDITIONS

- 3.3.11 The Permittee shall comply with the provisions of 40 63 Subpart UU for equipment leaks in **each applicable MCPU** as required under 40 CFR 63 Subpart FFFF.  
[40 CFR 63.2480(a)]
- 3.3.12 The Permittee may elect to comply with the following provisions of 40 CFR 63.2480(b)(1) through (5) as an alternative to the referenced provisions of Subpart UU:  
[40 CFR 63.2480(b)]
- a. – b. [no changes]
- c. [Deleted]**
- 3.3.14 The Permittee shall comply with the following requirements for equipment identification under the provisions of 40 CFR 63 Subpart UU.  
[40 CFR 63.1022]
- a. [no changes]
- b. In addition to the general identification required by paragraph a. of this condition, equipment subject to any of the provisions of Condition 3.3.15 through 3.3.23 shall be specifically identified as required in the following paragraphs, as applicable.
- i. – iii. [no changes]

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- iv. The identity, either by this list, location (area or group) or other method of equipment in regulated service less than 300 hours per calendar year subject to the provisions of 40 CFR 63 Subpart UU shall be recorded.  
[40 CFR 63.1022(b)(5)]

c. – e. [no changes]

3.3.19 The Permittee shall comply with the following for pumps in light liquid service that are subject to the provisions of 40 CFR 63 Subpart UU.  
[40 CFR 63.1026]

a. [no changes]

b. The Permittee shall comply with the following for percent leaking pumps calculations.  
[40 CFR 63.1026(c)]

i. [no changes]

ii. The number of pumps **in an MCPU** shall be the sum of all pumps in regulated material service, except that pumps found leaking in a MCPU within 1 month after start-up of the pump shall not count in the percent leaking pumps calculations for that one monitoring period only.  
[40 CFR 63.1026(c)(3)]

iii. [no changes]

c. – d. [no changes]

### **40 CFR 63 Subpart DDDDD – “Industrial, Commercial, and Institutional Boilers and Process Heaters.”**

#### MODIFIED CONDITION

3.3.25 The Permittee shall comply with all applicable provisions of the National Emission Standard for Hazardous Air Pollutants (NESHAP) as found in 40 CFR Part 63 in Subpart DDDDD – “Industrial, Commercial, and Institutional Boilers and Process Heaters” for the equipment listed below. These units are defined as “Gas 1” under this subpart.  
[40 CFR 63 Subpart DDDDD; 40 CFR 63.7500(a)(1)]

| Source Code | Process Unit        | Equipment               |
|-------------|---------------------|-------------------------|
| 0A17        | Amodel              | Hot Oil Heater KB-901   |
| 0A21        | Amodel              | Boiler UB-1210          |
| <b>0A22</b> | <b>Amodel</b>       | <b>Boiler UB-1210-1</b> |
| 00H1        | Sulfone             | Hot Oil Heater #1       |
| 00H2        | Sulfone             | Hot Oil Heater #2       |
| 00P1        | Xydar               | Hot Oil Heater H-601    |
| 00P2        | Xydar               | Hot Oil Heater H-603    |
| BE-01       | KetaSpire/NovaSpire | Hot Oil Heater          |

| Source Code    | Process Unit               | Equipment             |
|----------------|----------------------------|-----------------------|
| BE02           | KetaSpire/NovaSpire        | Boiler                |
| <b>PM3100</b>  | <b>KetaSpire/NovaSpire</b> | <b>Hot Oil Heater</b> |
| RB-1*          | Admin. Building            | Water Heater RB-1     |
| RB-2*          | Admin. Building            | Water Heater RB-2     |
| <b>UB-1310</b> | <b>Sarsaparilla</b>        | <b>Boiler UB-1310</b> |
| <b>HB-211</b>  | <b>Sarsaparilla</b>        | <b>Furnace HB-211</b> |
| <b>HB-221</b>  | <b>Sarsaparilla</b>        | <b>Furnace HB-221</b> |
| <b>HB-231</b>  | <b>Sarsaparilla</b>        | <b>Furnace HB-231</b> |

*\*Not listed in Table 3.1.1.*

## NEW CONDITIONS

### 40 CFR 63 Subpart FFFF

- 3.3.27** For each piece of equipment that is subject to Table 6 to 40 CFR 63 Subpart FFFF and is also subject to periodic monitoring with EPA Method 21 of 40 CFR Part 60, Appendix A-7, and is added to an affected source after December 17, 2019, or replaces equipment at an affected source after December 17, 2019, the Permittee must initially monitor for leaks within 30 days of initial startup of the equipment. Equipment that is designated as unsafe- or difficult-to-monitor is not subject to §63.2480(b)(7).  
[40 CFR 63.2480(b)(7)]
- 3.3.28** The Permittee must operate and maintain any 40 CFR 63 Subpart FFFF-affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Division 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 63.2450(u)]
- 3.3.29** The Permittee shall control emissions from all Group 1 process vents by venting emissions through a closed-vent system to reduce HAP emissions as follows:  
[40 CFR 63.2455 and Table 1 to 40 CFR 63 Subpart FFFF]
- a. For Group 1 continuous process vents:
    - i. Reduce emissions of total organic HAP by  $\geq 98$  percent by weight or to an outlet process concentration  $\leq 20$  ppmv as organic HAP or TOC by venting emissions through a closed-vent system to any combination of control devices (except a flare); or



- ii. Reduce emissions of total organic HAP by venting emissions through a closed vent system to a flare; or
    - iii. Use a recovery device to maintain the TRE above 1.9 for an existing source or above 5.0 for a new source.
  - b. For Halogenated Group 1 process vents:
    - i. Use a halogen reduction device after the combustion device to reduce emissions of hydrogen halide and halogen HAP by  $\geq 99$  percent by weight, or to  $\leq 0.45$  kg/hr, or to  $\leq 20$  ppmv; or
    - ii. Use a halogen reduction device before the combustion device to reduce the halogen atom mass emission rate to  $\leq 0.45$  kg/hr or to a concentration  $\leq 20$  ppmv.
- 3.3.30 The Permittee shall comply with the following for operation of HCl storage tanks HF-1811A, HF-1811B, and HF-1811C:  
[Item 1 of Table 4 to 40 CFR 63 Subpart FFFF]
  - a. Reduce total HAP emissions by  $\geq 95$  percent by weight, or to  $\leq 20$  ppmv of TOC or organic HAP and  $\leq 20$  ppmv of hydrogen halide and halogen HAP by venting emissions through a closed vent system to the HCl Storage Scrubber (Source Code HT-1811) or to any combination of control devices demonstrated to meet these requirements.
- 3.3.31 The Permittee shall meet the applicable requirements of 40 CFR 63.983 and 63.988 for the operation of the closed vent systems and control devices used to comply with the provisions of 40 CFR 63 Subpart FFFF.  
[40 CFR 63.2450(e)]
- 3.3.32 The use of a bypass line at any time on a closed vent system to divert emissions subject to the control requirements of 40 CFR 63 Subpart FFFF to the atmosphere or to a control device not meeting the requirements of 40 CFR 63 Subpart FFFF is an emissions standard deviation.  
[40 CFR 63.2450(e)(6); 40 CFR 63 Subpart SS]
  - a. If the bypass monitoring requirements of 40 CFR 63.983(a)(3) of Subpart SS are applicable, then the Permittee must continue to comply with the requirements in 40 CFR 63.983(a)(3) of Subpart SS and the recordkeeping and reporting requirements in 40 CFR 63.998(d)(1)(ii) and 63.999(c)(2) of Subpart SS, in addition to the requirements specified in 40 CFR 63.2450(e)(4), the recordkeeping requirements specified in 40 CFR 63.2525(n), and the reporting requirements specified in 40 CFR 63.2520(e)(12).  
[40 CFR 63.2450(e)(6)(iii)]

- b. For purposes of compliance with this condition, the following exemptions apply:  
[40 CFR 63.2450(e)(6)(v)]**
- i. Except for pressure relief devices subject to 40 CFR 63.2480(e)(4), equipment such as low leg drains and equipment subject to the requirements specified in 40 CFR 63.2480 are not subject to this condition.**
  - ii. Open-ended valves or lines that use a cap, blind flange, plug, or second valve and follow the requirements specified in 40 CFR 60.482-6(a)(2), (b), and (c) or follow requirements codified in another regulation that are the same as 40 CFR 60.482-6(a)(2), (b), and (c) are not subject to this condition.**

**3.3.33 For all applicable equipment, the Permittee must comply with the requirements specified in paragraphs a. and b. below for pressure relief devices, such as relief valves or rupture disks in organic HAP gas or vapor service. Except as specified in paragraphs d. and e. of this condition, the Permittee must comply with the requirements specified in paragraphs c., f., g., and h. below for all pressure relief devices in organic HAP service.**

**[40 CFR 63.2480(e)]**

- a. Except during a pressure release, operate each pressure relief device in organic HAP gas or vapor service with an instrument reading of less than 500 ppm above background as measured by the method specified in Condition 4.2.2.**
- b. For pressure relief devices in organic HAP gas or vapor service, the Permittee must comply with i. through iii. below following a pressure release.**
  - i. If the pressure relief device does not consist of or include a rupture disk, conduct instrument monitoring, as specified in Condition 4.2.2, no later than 5 calendar days after the pressure relief device returns to organic HAP gas or vapor service following a pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm.**
  - ii. If the pressure relief device includes a rupture disk, either comply with the requirements in paragraph b.i. of this condition (and do not replace the rupture disk) or install a replacement disk as soon as practicable after a pressure release, but no later than 5 calendar days after the pressure release. The Permittee must conduct instrument monitoring no later than 5 calendar days after the pressure relief device returns to organic HAP gas or vapor service following a pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm.**

- iii. If the pressure relief device consists only of a rupture disk, install a replacement disk as soon as practicable after a pressure release, but no later than 5 calendar days after the pressure release. The Permittee must not initiate startup of the equipment served by the rupture disk until the rupture disc is replaced. The Permittee must conduct instrument monitoring no later than 5 calendar days after the pressure relief device returns to organic HAP gas or vapor service following a pressure release to verify that the pressure relief device is operating with an instrument reading of less than 500 ppm.**
  
- c. Except as specified in paragraphs d. and e. of this condition, the Permittee must comply with the requirements specified in c.i. through c.v. below for all pressure relief devices in organic HAP service.**

  - i. The Permittee must equip each affected pressure relief device with a device(s) or use a monitoring system that is capable of:**

    - (A) Identifying the pressure release;**
    - (B) Recording the time and duration of each pressure release; and**
    - (C) Notifying operators immediately that a pressure release is occurring. The device or monitoring system must be either specific to the pressure relief device itself or must be associated with the process system or piping, sufficient to indicate a pressure release to the atmosphere. Examples of these types of devices and systems include, but are not limited to, a rupture disk indicator, magnetic sensor, motion detector on the pressure relief valve stem, flow monitor, or pressure monitor.**
  
  - ii. The Permittee must apply at least three redundant prevention measures to each affected pressure relief device and document these measures. Examples of prevention measures include:**

    - (A) Flow, temperature, liquid level and pressure indicators with deadman switches, monitors, or automatic actuators. Independent, non-duplicative systems within this category count as separate redundant prevention measures.**
    - (B) Documented routine inspection and maintenance programs and/or operator training (maintenance programs and operator training may count as only one redundant prevention measure).**
    - (C) Inherently safer designs or safety instrumentation systems.**
    - (D) Deluge systems.**
    - (E) Staged relief system where the initial pressure relief device (with lower set release pressure) discharges to a flare or other closed vent system and control device.**

- iii. **If any affected pressure relief device releases to the atmosphere as a result of a pressure release event, the Permittee must perform root cause analysis and corrective action analysis according to the requirements of paragraph f. of this condition and implement corrective actions according to the requirements in paragraph g. of this condition. The Permittee must calculate the quantity of organic HAP released during each pressure release event and report this quantity as required in 40 CFR 63.2520(e)(15) and Condition 6.2.20. Calculations may be based on data from the pressure relief device monitoring alone or in combination with process parameter monitoring data and process knowledge.**
- iv. **The Permittee must determine the total number of release events that occurred during the calendar year for each affected relief device separately.**
- v. **Except for pressure relief devices described in paragraphs d. and e. of this condition, the following release events from an affected pressure relief device are a deviation of the pressure release management work practice standards.**
  - (A) **Any release event for which the root cause of the event was determined to be operator error or poor maintenance.**
  - (B) **A second release event from a single pressure relief device in a 3-calendar year period for the same root cause for the same equipment.**
  - (C) **A third release event from a single pressure relief device in a 3-calendar year period for any reason.**
- d. **For pressure relief devices routed to a control device, process, fuel gas system, or drain system:**
  - i. **If all releases and potential leaks from a pressure relief device are routed through a closed vent system to a control device, back into the process, to the fuel gas system, or to a drain system, then the Permittee is not required to comply with paragraphs a., b., or c. of this condition.**
  - ii. **Both the closed vent system and control device (if applicable) referenced in d.i. of this condition must meet the applicable requirements specified in 40 CFR 63.982(c)(2), 40 CFR 63.983, and 40 CFR 63.2450(e)(4) through (6).**
  - iii. **The drain system (if applicable) referenced in paragraph d.i. of this condition must meet the applicable requirements specified in 40 CFR 63.2485(e).**
- e. **The following types of pressure relief devices are not subject to the pressure release management requirements in paragraph c. of this condition.**
  - i. **Pressure relief devices in heavy liquid service, as defined in 40 CFR 63.1020 of 40 CFR 63 Subpart UU.**

- ii. **Thermal expansion relief valves.**
- iii. **Pressure relief devices on mobile equipment.**
- iv. **Pilot-operated pressure relief devices where the primary release valve is routed through a closed vent system to a control device or back into the process, to the fuel gas system, or to a drain system.**
- v. **Balanced bellows pressure relief devices where the primary release valve is routed through a closed vent system to a control device or back into the process, to the fuel gas system, or to a drain system.**
  
- f. **A root cause analysis and corrective action analysis must be completed as soon as possible, but no later than 45 days after a release event. Special circumstances affecting the number of root cause analyses and/or corrective action analyses are provided in 40 CFR 63.2480(e)(6)(i) through (iii).**
  
- g. **The Permittee must conduct a root cause analysis and implement the corrective action(s) identified in the corrective action analysis in accordance with paragraphs g.i. through g.iii. below:**
  - i. **All corrective action(s) must be implemented within 45 days of the event for which the root cause and corrective action analyses were required or as soon thereafter as practicable. If the Permittee concludes that no corrective action should be implemented, the Permittee must record and explain the basis for that conclusion no later than 45 days following the event.**
  
  - ii. **For corrective actions that cannot be fully implemented within 45 days of the event for which the root cause and corrective action analysis were required, the Permittee must develop an implementation schedule to complete the corrective action(s) as soon as practicable.**
  
  - iii. **No later than 45 days following the event for which a root cause and corrective action analyses were required, the Permittee must record the corrective action(s) completed to date, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.**
  
- h. **The Permittee must follow the prohibitions for installation of flowing pilot-operated pressure relief devices of 40 CFR 63.2480(e)(8), as applicable.**

**40 CFR 63 Subpart SS**

- 3.3.34 The Permittee shall comply with the applicable requirements of 40 CFR 63.983 for closed vent systems when required by 40 CFR 63 Subpart FFFF.  
[40 CFR 63.2450(e)]**
- a. Except for closed vent systems operated and maintained under negative pressure, the provisions of this paragraph apply to closed vent systems collecting regulated material from a regulated source.  
[40 CFR 63.983(a)]**
- i. Each closed vent system shall be designed and operated to collect the regulated material vapors from the emission point, and to route the collected vapors to a control device.  
[40 CFR 63.983(a)(1)]**
- ii. Closed vent systems shall be operated at all times when emissions are vented to, or collected by, them.  
[40 CFR 63.983(a)(2)]**
- iii. The Permittee shall comply with the provisions of either of the following paragraphs for each closed vent system that contains bypass lines that could divert a vent stream to the atmosphere.  
[40 CFR 63.983(a)(3); 40 CFR 63.2450(e)(4)(i)]**
- (A) Properly install, maintain, and operate a flow indicator that is capable of taking periodic readings. Records shall be generated as specified in Condition 6.2.25.a.ii.A. The flow indicator shall be installed at the entrance to any bypass line.  
[40 CFR 63.983(a)(3)(i)]**
- (B) Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. Records shall be generated as specified in Condition 6.2.25.a.ii.B.  
[40 CFR 63.983(a)(3)(ii)]**
- b. The provisions of this paragraph apply to closed vent systems collecting regulated material from a regulated source. Inspection records shall be generated as specified in Conditions 6.2.25.a.iii and a.iv.  
[40 CFR 63.983(b)]**
- i. Except for any closed vent systems that are designated as unsafe or difficult to inspect as provided in paragraphs b.ii. and b.iii. of this condition, each closed vent system shall be inspected as specified in one of the following paragraphs.  
[40 CFR 63.983(b)(1)]**

- (A) **If the closed vent system is constructed of hard-piping, the Permittee shall conduct an initial inspection according to the procedures in Condition 4.2.2 and conduct annual inspections for visible, audible, or olfactory indications of leaks.**  
[40 CFR 63.983(b)(1)(i)]
  - (B) **If the closed vent system is constructed of ductwork, Permittee shall conduct an initial and annual inspections according to the procedures in Condition 4.2.2.**  
[40 CFR 63.983(b)(1)(ii)]
- ii. **Any parts of the closed vent system that are designated, as described in Condition 6.2.25.a.i, as unsafe to inspect are exempt from the inspection requirements of paragraph b.i. of this condition if the conditions of the following paragraphs are met.**  
[40 CFR 63.983(b)(2)]
  - (A) **The Permittee determines that the equipment is unsafe-to-inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with paragraph b.i. of this condition; and**  
[40 CFR 63.983(b)(2)(i)]
  - (B) **The Permittee has a written plan that requires inspection of the equipment as frequently as practical during safe-to-inspect times. Inspection is not required more than once annually.**  
[40 CFR 63.983(b)(2)(ii)]
- iii. **Any parts of the closed vent system that are designated, as described in Condition 6.2.25.a.i, as difficult-to-inspect are exempt from the inspection requirements of paragraph b.i. of this condition if the provisions of the following paragraphs apply.**  
[40 CFR 63.983(b)(3)]
  - (A) **The Permittee determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters (7 feet) above a support surface; and**  
[40 CFR 63.983(b)(3)(i)]
  - (B) **The Permittee has a written plan that requires inspection of the equipment at least once every 5 years.**  
[40 CFR 63.983(b)(3)(ii)]

- iv. For each bypass line, the Permittee shall comply with one of the following paragraphs.  
[40 CFR 63.983(b)(4)]
- (A) If a flow indicator is used, take a reading at least once every 15 minutes.  
[40 CFR 63.983(b)(4)(i)]
- (B) If the bypass line valve is secured in the non-diverting position, visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position, and the vent stream is not diverted through the bypass line.  
[40 CFR 63.983(b)(4)(ii)]
- c. The provisions of this paragraph apply to closed vent systems collecting regulated material from a regulated source.  
[40 CFR 63.983(d)]
- i. If there are visible, audible, or olfactory indications of leaks at the time of the annual visual inspections required by paragraph b.i.(A) of this condition, the Permittee shall eliminate the leak or monitor the equipment according to the procedures in Condition 4.2.2.  
[40 CFR 63.983(d)(1)]
- ii. Leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practical, except as provided in paragraph c.iii of this condition. Records shall be generated as specified in Condition 6.2.25.a.iii when a leak is detected.  
[40 CFR 63.983(d)(2)]
- (A) A first attempt at repair shall be made no later than 5 days after the leak is detected.  
[40 CFR 63.983(d)(2)(i)]
- (B) Except as provided in paragraph c.iii. of this condition, repairs shall be completed no later than 15 days after the leak is detected or at the beginning of the next introduction of vapors to the system, whichever is later.  
[40 CFR 63.983(d)(2)(ii)]
- iii. Delay of repair of a closed vent system for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible or unsafe without a closed vent system shutdown, as defined in 40 CFR 63.981, or if the Permittee determines that emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment shall be completed as soon as practical, but not later than the end of the next closed vent system shutdown.  
[40 CFR 63.983(d)(3)]



**3.4 Equipment SIP Rule Standards**

**MODIFIED CONDITION**

3.4.1 The Permittee shall not cause, let, suffer, permit, or allow emissions of any gases which exhibit forty percent (40%) opacity or greater from all processes, unless otherwise specified. [391-3-1-.02(2)(b)(1)]

**MODIFIED CONDITION**

3.4.2 The Permittee shall not cause, let, suffer, permit, or allow the emission from any source, PM in total quantities equal to or exceeding the allowable rate as calculated using the applicable equation below, unless otherwise specified in this permit. [391-3-1-.02(2)(e)1.(i)]

$E = 4.1P^{0.67}$ , for process input weight rate up to and including 30 tons per hour;  
 $E = 55P^{0.11} - 40$ , for process input weight rate in excess of 30 tons per hour.

Where:

E = allowable emission rate in pounds per hour;

P = process input weight rate in tons per hour.

**MODIFIED CONDITION**

3.4.3 The Permittee shall not cause, let, suffer, permit, or allow visible emissions from the equipment listed below, the opacity of which is equal to or greater than twenty percent (20%) except for one six-minute period per hour of not more than twenty-seven percent (27%). [391-3-1-.02(2)(d)3.]

| <b>Source Code</b> | <b>Process Unit</b> | <b>Equipment</b>        |
|--------------------|---------------------|-------------------------|
| 0A17               | Amodel              | Hot Oil Heater KB-901   |
| <b>0A22</b>        | <b>Amodel</b>       | <b>Boiler UB-1210-1</b> |
| 00P1               | Xydar               | Hot Oil Heater H-601    |
| 00P2               | Xydar               | Hot Oil Heater H-603    |
| BE-01              | KetaSpire/NovaSpire | Hot Oil Heater          |
| BE-02              | KetaSpire/NovaSpire | Boiler                  |
| <b>UB-1310</b>     | <b>Sarsaparilla</b> | <b>Boiler UB-1310</b>   |
| <b>HB-211</b>      | <b>Sarsaparilla</b> | <b>Furnace HB-211</b>   |
| <b>HB-221</b>      | <b>Sarsaparilla</b> | <b>Furnace HB-221</b>   |
| <b>HB-231</b>      | <b>Sarsaparilla</b> | <b>Furnace HB-231</b>   |

**MODIFIED CONDITION**

3.4.4 The Permittee shall not cause, let, suffer, permit, or allow the emissions of fly ash and/or other particulate matter from any equipment listed below in amounts equal to or exceeding the rate derived from  $P = 0.5(10/R)^{0.5}$  pounds per million BTU heat input, where P equals the allowable weight of emissions of fly ash and/or particulate matter in pounds per million BTU heat input and R equals the heat input of fuel-burning equipment in million BTU per hour. [391-3-1-.02(2)(d)2.(ii)]

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| Source Code    | Process Unit        | Equipment             |
|----------------|---------------------|-----------------------|
| 0A17           | Amodel              | Hot Oil Heater KB-901 |
| 0A21           | Amodel              | Boiler UB-1210        |
| 00H1           | Sulfone             | Hot Oil Heater #1     |
| 00H2           | Sulfone             | Hot Oil Heater #2     |
| 00P1           | Xydar               | Hot Oil Heater H-601  |
| 00P2           | Xydar               | Hot Oil Heater H-603  |
| BE-01          | KetaSpire/NovaSpire | Hot Oil Heater        |
| BE-02          | KetaSpire/NovaSpire | Boiler                |
| <b>UB-1310</b> | <b>Sarsaparilla</b> | <b>Boiler UB-1310</b> |
| <b>HB-211</b>  | <b>Sarsaparilla</b> | <b>Furnace HB-211</b> |
| <b>HB-221</b>  | <b>Sarsaparilla</b> | <b>Furnace HB-221</b> |
| <b>HB-231</b>  | <b>Sarsaparilla</b> | <b>Furnace HB-231</b> |

### NEW CONDITION

**3.4.8** The Permittee shall take all reasonable precautions to prevent fugitive dust from becoming airborne from any operation, process, handling, and transportation or storage facility. The opacity from any fugitive dust source shall not equal or exceed twenty percent. Reasonable precautions that should be taken to prevent dust from becoming airborne include, but are not limited to, the following:

[391-3-1-.02(2)(n)]

- a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
- b. Application of asphalt, water, or suitable chemicals on dirt roads, materials, stockpiles, and other surfaces that can give rise to airborne dusts;
- c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods can be employed during sandblasting or other similar operations;
- d. Covering, at all times when in motion, open-bodied trucks, transporting materials likely to give rise to airborne dust; and
- e. The prompt removal of earth or other material from paved streets onto which earth or other material has been deposited.

**3.5 Equipment Standards Not Covered by a Federal or SIP Rule and Not Instituted as an Emission Cap or Operating Limit**

MODIFIED CONDITION

3.5.4 The Permittee shall not fire any fuel oil that contains more than 0.5 percent sulfur, by weight, and the fuel oil shall meet the specifications for “distillate” fuel oil (No. 1 or No. 2) as defined by the American Society for Testing and Materials (ASTM) in ASTM D396-86, “Standard Specifications for Fuel Oils” in any equipment listed below.  
 [391-3-1-.03(2)(c), 391-3-1-.02(2)(g) subsumed]

| <b>Source Code</b> | <b>Process Unit</b>        | <b>Equipment</b>        |
|--------------------|----------------------------|-------------------------|
| 00C2               | Udel                       | Udel Thermal Oxidizer   |
| 00P1               | Xydar                      | Hot Oil Heater H-601    |
| 00P2               | Xydar                      | Hot Oil Heater H-603    |
| BE-01              | KetaSpire/NovaSpire        | Hot Oil Heater          |
| BE-02              | KetaSpire/NovaSpire        | Boiler                  |
| <b>PM-3100</b>     | <b>KetaSpire/NovaSpire</b> | <b>Hot Oil Heater</b>   |
| <b>0A22</b>        | <b>Amodel</b>              | <b>Boiler UB-1210-1</b> |
| <b>UB-1310</b>     | <b>Sarsaparilla</b>        | <b>Boiler UB-1310</b>   |

**PART 4.0 REQUIREMENTS FOR TESTING****4.1 General Testing Requirements**

4.1.3 Performance and compliance tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division's Procedures for Testing and Monitoring Sources of Air Pollutants. The methods for the determination of compliance with emission limits listed under Sections 3.2, 3.3, 3.4 and 3.5 are as follows:

a. – w. [no changes]

**NEW CONDITION**

x. **ASTM E224 for the determination of HCl concentration in liquid products.**  
[40 CFR 63.9020(e)]

**4.2 Specific Testing Requirements****NEW CONDITION**

4.2.6 **Within 60 days after achieving the maximum production rate for the 100 Area Sulfone raw material production process, but not later than 180 days after the initial startup, the Permittee shall establish SO<sub>2</sub> emissions factors for use in demonstrating compliance with Condition 3.2.1.**  
[391-3-1-.02(3) and 391-3-1-.03(2)(c)]

**40 CFR 63 Subpart FFFF****NEW CONDITIONS**

4.2.7 **Within 60 days after achieving the maximum production rate for the PR-200/PR-2200 reactor(s) in the KetaSpire / NovaSpire process, but not later than 180 days after the initial startup after the changes described in Application No. 29216, the Permittee shall conduct a performance test for HF from the SC-1 and/or SC-3 Reactor Scrubber(s) to confirm combined uncontrolled hydrogen halide and halogen HAP emissions are less than or equal to 1,000 lb/yr.**  
[391-3-1-.02(3) and 391-3-1-.03(2)(c)]

4.2.8 **Within 60 days after achieving the maximum production rate for the D7 extruder, but not later than 180 days after the initial startup, the Permittee shall conduct a performance test for methanol from the vacuum pump vent in the Compounding process to verify the TRE calculation.**  
[391-3-1-.02(3) and 391-3-1-.03(2)(c)]

- 4.2.9** Within 180 days after initial startup of each Condenser LE-679, LE-576, and LE-680, after the changes made as described in Application No. 29216, the Permittee shall conduct a performance test to verify TRE calculations for each of these units. During the testing, the Permittee shall establish a range for the condenser exit (product side) temperature that indicates proper operation of the control or recovery device. In order to establish the range, the information required in §63.999(b)(3) shall be submitted in each Notification of Compliance Status Report and in accordance with 40 CFR 63.2520(d) and 40 CFR 63.9(h).  
[40 CFR 63.2455(c)1, 40 CFR 63.993 and 63.996(c)(6)]
- 4.2.10** Within 60 days after achieving the maximum production rate at which sources in the Sarsaparilla Process directed to each of the Thermal Oxidizers (Source Codes HB-1800 and HB-1801) and each of the Thermal Oxidizer Scrubbers (Source Codes HT-1800 and HT-1801) will be operated, but not later than 180 days after the initial startup, the Permittee shall conduct performance testing on the thermal oxidizer/scrubber system to which the applicable Project Sarsaparilla process vents. Testing shall be conducted under maximum representative operating conditions. The performance test shall also be conducted in accordance with the provisions of 40 CFR 63.2450(g) and any other applicable provisions of 40 CFR 63 Subpart SS and 40 CFR 63 Subpart FFFF. The Permittee shall establish operating limits for each thermal oxidizer and scrubber as described in 40 CFR 63.998(a)(2)(ii)(B)(I) and 40 CFR 63.998(a)(2)(ii)(D). The Permittee shall also establish SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC emissions factors for use in demonstrating compliance with Conditions 3.2.1, 3.2.2 and 3.2.3 during this testing.  
[40 CFR 63.2450(k), 40 CFR 63.994(b)(1), 40 CFR 63.997]
- 4.2.11** Within 180 days after placing HCl Storage Tanks HF-1811 A/B/C into HCl service the Permittee shall conduct performance testing on the associated scrubber system(s) to which the applicable HCl storage tank vents. Testing shall be conducted under maximum representative operating conditions. The performance test shall also be conducted in accordance with the provisions of 40 CFR 63.2450(g) and any other applicable provisions of 40 CFR 63 Subpart SS and 40 CFR 63 Subpart FFFF. The Permittee shall establish operating limits for each applicable scrubber as described in 40 CFR 63.998(a)(2)(ii)(D). For the purposes of placing the HCl Storage Tanks into service in order to produce HCl for sale, additional applicable requirements of 40 CFR 63 Subpart NNNNN are included in Section 7.0 of this permit.  
[391-3-1-.02(3) and 391-3-1-.03(2)(c)]

**40 CFR 60 Subpart Dc**

**NEW CONDITIONS**

**4.2.12** Within 60 days after the first firing of fuel oil in boilers UB-1210 (Source Code 0A21), UB-1210-1 (Source Code 0A22), Hot Oil Heater #1 (Source Code 00H1), Hot Oil Heater #2 (Source Code 00H2), the KetaSpire/NovaSpire Boiler (Source Code BE-02), or Boiler UB-1310 (Source Code UB-1310), the Permittee shall conduct a Method 9 performance test for visible emissions from the applicable boiler or heater stack while burning distillate fuel oil at the maximum expected firing rate, to demonstrate compliance with the opacity limits specified in Condition 3.3.6. If, during the initial 60 minutes of observation, all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent, the observation period may be reduced from 3 hours to 60 minutes.

The Permittee shall notify the Division in writing, within 15 days after the first firing of fuel oil, that fuel oil was burned in the boiler(s). This notice shall indicate the Permittee’s intent to conduct the performance test and the planned day of the test. The results of the performance test(s) shall be submitted to the Division within 30 days of the completion of testing. Subsequent performance tests shall be conducted in accordance with the procedures as outlined in 40 CFR 60.47c(a)].

[40 CFR 60.45c(a)(8) and 40 CFR 60.47c(a)]

**4.2.13** Following the initial performance test required by Condition 4.2.12, subsequent Method 9 performance testing shall be conducted, while the applicable boilers are firing fuel oil, at a frequency specified in the table below in order to monitor compliance with the emission limit specified in Condition 3.3.6. If, during the initial 60 minutes of observation, all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent, the observation period may be reduced from 3 hours to 60 minutes.

[40 CFR 60.47c(a)(1) and (c), 40 CFR 70.6(a)(3)(i), and 391-3-1-.02(6)(b)1]

| <b>Highest 6-minute Average Opacity Observed</b> | <b>Subsequent testing shall be conducted within:</b>   |
|--|--|
| 0%   | 12 Calendar Months, or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later. |
| >0% - 5%   | 6 Calendar Months, or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later.  |
| >5% - 10%  | 3 Calendar Months, or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later.  |
| >10%   | 45 Calendar Days, or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later.   |

**4.2.14 If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 performance test required by Condition 4.2.12 or 4.2.13, the Permittee may, as an alternative to performing subsequent Method 9 tests, elect to perform subsequent monitoring using Method 22 according to the procedures outlined in 40 CFR 60.47c(a)(2).**

**[40 CFR 60.47c(a)(2) and 391-3-1-.02(6)(b)1]**

**VOC LIMIT COMPLIANCE**

**4.2.15 Within 60 days after achieving the maximum production rate in the Sarsaparilla process the following equipment ID Nos HT-1800, HT-1801, HT-493, HH-610, HH-620, and HE-680 or control device that emits VOC emissions to the atmosphere shall be tested, but not later than 180 days after each unit is placed into service or modified as described in Application No. 29216, a test for VOC emissions shall be performed to determine emission factors and/or control efficiency for determining compliance with the emissions limit of Condition 3.2.2.**

**[391-3-1-.02(3) and 391-3-1-.03(2)(c)]**

**PART 5.0 REQUIREMENTS FOR MONITORING (Related to Data Collection)****5.2 Specific Monitoring Requirements**

## MODIFIED CONDITION

- 5.2.1 The Permittee shall install, calibrate, maintain, and operate a system to continuously monitor and record the indicated pollutants on the following equipment. Each system shall meet the applicable performance specification(s) of the Division's monitoring requirements.  
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

Amodel and Sulfone Processes

- a. – b. [no changes]  
c. – f. [reserved]

## MODIFIED CONDITION

- g. Outlet coolant temperature for Condensers 0C7A (LE-680), C7D (LE-679), and D576 (LE-576). The temperature monitor shall be operated and maintained in accordance with 40 CFR 63.2450(k) and 40 CFR 63 Subpart SS. The temperature data shall be maintained in accordance with Conditions 6.2.23 and 6.2.24. The parameter shall be recorded during periods each condenser is used. Data shall be recorded at least once every 15 minutes unless TRE values are determined to be more than 5.0, in which case data recording may be reduced to once per working shift.  
[40 CFR 63.982(e), 63.993(c)(2) and 40 CFR 63.2455]

- h. – i. [reserved]  
j. – l. [no changes]

Xydar and Compounding Processes

- m. – o. [reserved]

Udel Process

- p. – r. [reserved]

KetaSpire/NovaSpire Processes

- s. – y. [reserved]



**NEW CONDITIONS****Sarsaparilla Process**

- z. Temperature for the Sarsaparilla thermal oxidizers (Source Codes HB-1800 and HB-1801) at the fire box or in the ductwork immediately downstream of the fire box in a position before any substantial heat exchange occurs. The temperature monitors shall be operated and maintained in accordance with 40 CFR 63.2450(k) and 40 CFR 63 Subpart SS. The temperature data shall be maintained in accordance with Conditions 6.2.23 and 6.2.24. The parameter shall be recorded for each thermal oxidizer during periods that the subject thermal oxidizer is used. [40 CFR 63.988(c)(1), 40 CFR 63.2450(k)]**
- aa. pH of the effluent liquid from each of the thermal oxidizer scrubbers (Source Codes HT-1800 and HT-1801). The data shall be maintained in accordance with Conditions 6.2.23 and 6.2.24. The parameters shall be recorded for the scrubber during periods that the subject scrubber is used. [40 CFR 63.2450(k), 40 CFR 63.998(a)(2)(ii)(D)(2) and 40 CFR 63.994(c)(1)(i)]**
- ab. Liquid flow of the influent to the thermal oxidizer scrubbers (Source Codes HT-1800 and HT-1801). The data shall be maintained in accordance with Conditions 6.2.23 and 6.2.24. The parameters shall be recorded for the scrubber during periods that the subject scrubber is used. [40 CFR 63.2450(k), 40 CFR 63.998(a)(2)(ii)(D)(3) and 40 CFR 63.994(c)(1)(ii)]**
- ac. Gas stream inlet flow to the thermal oxidizer scrubbers (Source Codes HT-1800, and HT-1801). The data shall be maintained in accordance with Conditions 6.2.23 and 6.2.24. The parameter shall be recorded for the scrubber during periods that the subject scrubber is used. Gas stream inlet flow to the thermal oxidizer scrubbers shall be monitored using one of the procedures specified in paragraphs (A) through (D) as follows:  
[40 CFR 63.2450(k) and 40 CFR 63.994(c)(1)(ii)(A)]**
- (A) Determine gas stream flow using the design blower capacity, with appropriate adjustments for pressure drop.**
- (B) Measure the gas stream flow at the scrubber inlet.**
- (C) [reserved]**

- (D) Prepare and implement a gas stream flow determination plan that documents an appropriate method that will be used to determine the gas stream flow. The plan shall require determination of gas stream flow by a method that will at least provide a value for either a representative or the highest gas stream flow anticipated in the scrubber during representative operating conditions other than start-ups, shutdowns, or malfunctions. The plan shall include a description of the methodology to be followed and an explanation of how the selected methodology will reliably determine the gas stream flow, and a description of the records that will be maintained to document the determination of gas stream flow. The Permittee shall maintain the plan as specified in 40 CFR 63 Subpart FFFF.**
- ad. pH of the effluent liquid from the HCl Storage Scrubber (Source Code HT-1811). Data shall be recorded once every 15 minutes. The data shall be maintained in accordance with Conditions 6.2.23 and 6.2.24. The parameters shall be recorded for the scrubber during periods that the subject scrubber is used.  
[40 CFR 63.2450(k), 40 CFR 63.998(a)(2)(ii)(D)(2) and 40 CFR 63.994(c)(1)(i)]**
- ae. Liquid flow of the influent to the HCl Storage Scrubber (Source Code HT-1811). Data shall be recorded once every 15 minutes. The data shall be maintained in accordance with Conditions 6.2.23 and 6.2.24. The parameters shall be recorded for the scrubber during periods that the subject scrubber is used.  
[40 CFR 63.2450(k), 40 CFR 63.998(a)(2)(ii)(D)(3) and 40 CFR 63.994(c)(1)(ii)]**
- af. Gas stream inlet flow to the HCl Storage Scrubber (Source Code HT-1811). The data shall be maintained in accordance with Conditions 6.2.23 and 6.2.24. The parameter shall be recorded for the scrubber during periods that the subject scrubber is used. Gas stream inlet flow to the HCl Storage Scrubber (Source Code HT-1811) shall be monitored using one of the procedures specified in paragraphs (A), (B), and (D) as follows:  
[40 CFR 63.2450(k) and 40 CFR 63.994(c)(1)(ii)(A)]**
- (A) Determine gas stream flow using the design blower capacity, with appropriate adjustments for pressure drop.**
- (B) Measure the gas stream flow at the scrubber inlet.**
- (C) [reserved]**

- (D) Prepare and implement a gas stream flow determination plan that documents an appropriate method that will be used to determine the gas stream flow. The plan shall require determination of gas stream flow by a method that will at least provide a value for either a representative or the highest gas stream flow anticipated in the scrubber during representative operating conditions other than start-ups, shutdowns, or malfunctions. The plan shall include a description of the methodology to be followed and an explanation of how the selected methodology will reliably determine the gas stream flow, and a description of the records that will be maintained to document the determination of gas stream flow. The Permittee shall maintain the plan as specified in 40 CFR Subpart FFFF.
- ag. pH of the effluent liquid from the X2 and X4 scrubber (Source Code HT-493). Data shall be recorded once every 15 minutes. The data shall be maintained in accordance with Conditions 6.2.23 and 6.2.24. The parameters shall be recorded for the scrubber during periods that the subject scrubber is used.  
[40 CFR 63.2450(k), 40 CFR 63.998(a)(2)(ii)(D)(2) and 40 CFR 63.994(c)(1)(i)]

#### NEW CONDITION

- 5.2.3 The Permittee shall install, calibrate, maintain, and operate monitoring devices for the measurement of the indicated parameters on the following equipment. Data shall be recorded at the frequency specified below. Where such performance specification(s) exist, each system shall meet the applicable performance specification(s) of the Division's monitoring requirements.  
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

#### Amodel and Sulfone Processes

- a. Pressure drop from Scrubber KT-1001 (Source Code A10A). Data shall be recorded once per working shift.
- b. Scrubbant flow rate from Scrubber KT-1001 (Source Code A10A). Data shall be recorded once per working shift.
- c. Pressure drop from Scrubber KF-633 (Source Code 0A6B). Data shall be recorded once per working day.
- d. Scrubbant flow rate from Scrubber KF-633 (Source Code 0A6B). Data shall be recorded once per working day.
- e. Exit gas temperature for Condenser C-803 (Source Code 0A8C) at the liquid condensate (KT1820) and exit gas temperature at the common vent point of Seal Drum KF613 and Vacuum Pump C603 (KT1664). Data shall be recorded once per working shift.
- f. Pressure drop across the Waste Heat Boiler LM-731 demister (Source Code 0C7L). Data shall be recorded once per working shift when burning waste fuel in Waste Heat Boiler LM-731.

- g. Outlet coolant temperature for Condensers with the following Source Codes: 0C2A (LE-114), 0C2G (LE-208), 0C2L (LE-210), 0C5A (LE-309), 0C6A (LE-405), 0C6C (LE-467), 0C5B (LE-330), 0C7B (LE-448), C6F (LE-477), LE-488, LE-580, LE-368, and LE-347. Data shall be recorded once per working shift.**
- h. Pressure drop from Scrubber LT-103 (Source Code 0C1A). Data shall be recorded once per working shift.**
- i. Pressure drop from Scrubbers LT-740 and LT-750 (Source Codes 0C8A and 0C8B), except as provided for in Condition 3.4.7. Data shall be recorded once per working shift when burning waste fuel in Waste Heat Boiler LM-731.**

#### **Xydar & Compounding Processes**

- j. Pressure drop from Caustic Scrubber T-701 (Source Code 0X2T). Data shall be recorded once per working shift.**
- k. pH from Caustic Scrubber T-701 (Source Code 0X2T). Data shall be recorded once per working shift.**
- l. Scrubbant flow rate from Caustic Scrubber T-701 (Source Code 0X2T). Data shall be recorded once per working shift.**

#### **Udel Process**

- m. Pressure drop of the gas stream through the Acid Gas Scrubber (Source Code 00C3). Data shall be recorded once per working shift.**
- n. Scrubbing liquid flow rate in the Acid Gas Scrubber (Source Code 00C3). Data shall be recorded once per working shift.**
- o. pH of the scrubbant in the Acid Gas Scrubber (Source Code 00C3). Data shall be recorded once per working shift.**

#### **KetaSpire/NovaSpire**

- p. Pressure drop of the gas stream through the Water Scrubber (Source Code SC-2) and Carbonate Scrubbers (Source Codes SC-1 and SC-3). Data shall be recorded once per working shift.**

#### **PUSH Process**

- q. Pressure drop of the gas stream through the FT01 Scrubber. Data shall be recorded once per working shift.**
- r. Pressure drop of the gas stream through the FT02 Scrubber. Data shall be recorded once per working shift.**

- s. **Pressure drop of the gas stream through the FT03 Scrubber. Data shall be recorded once per working shift.**
- t. **pH of the effluent liquid from the FT01 Scrubber. Data shall be recorded once per working shift.**
- u. **When operating in HSS mode, pressure drop of the gas stream through the membrane control device (Source Code FA07). Data shall be recorded once per working shift, when operating in HSS mode.**

**NEW CONDITION**

- 5.2.4 The Permittee shall monitor the pressure drop of each new control equipment associated with Application No. 29216. Data shall be recorded once per working day. [391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]**

**NEW CONDITION**

- 5.2.5 The Permittee shall implement a Preventative Maintenance Program for the baghouses and dust collectors to assure that the provisions of Condition 8.17.1 are met. All QA/QC practices and criteria shall be stated in the Preventative Maintenance Program. The program shall be subject to review and, if necessary to assure compliance, modification by the Division and shall include the pressure drop ranges that indicate proper operation for each baghouse. At a minimum, the following operation and maintenance checks shall be made on at least a weekly basis, and a record of the findings and corrective actions taken shall be kept in a maintenance log: [391-3-1-302(6)(b)1 and 40 CFR 70.6(a)(3)(i)]**

- a. **For baghouses equipped with compressed air cleaning systems, check the system for proper operation. This may include checking for low pressure, leaks, proper lubrication, and proper operation of timer and valves.**
- b. **For baghouse equipped with reverse air cleaning systems, check the system for proper operation. This may include checking damper, bypass, and isolation valves for proper operation**
- c. **For baghouse equipped with shaker cleaner systems, check the system for proper operation. This may include checking shaker mechanism for loose or worn bearings, drive components, mountings; proper operation of outlet/isolation valves; proper lubrication.**
- d. **Check dust collector hoppers and conveying systems for proper operation.**

**NEW CONDITION**

**5.2.6** The Permittee shall perform checks of visible emissions from all baghouse and dust collector stacks. Checks shall be carried out for each day of operation. The Permittee shall retain a record in a daily visible emissions (VE) log suitable for inspection or submittal. The check shall be conducted at least once for each day or portion of each day of operation using procedures a. through c. below except when scheduling atmospheric conditions or sun positioning prevent any opportunity to perform the daily VE check. Any operational day when scheduling, atmospheric conditions, or sun position prevent a daily reading shall be reported as monitor downtime in the report required by Condition 6.1.7c. Scheduling prevents a daily VE check only when an emission unit is not operating during a regularly scheduled time period established for the daily VE checks.  
[391-3-1-.02(6)(b)1]

- a. Determine, in accordance with the procedures specified in paragraph c. of this condition, if visible emissions are present at the discharge point to the atmosphere from each of the sources and record the results in the daily (VE) log. For sources that exhibit visible emissions, the Permittee shall comply with Condition 5.2.6b.
- b. For each source that requires action in accordance with paragraph a. of this condition, the Permittee shall determine the cause of the visible emissions and correct the problem in the most expedient manner possible. The Permittee shall note the cause of the visible emissions, the pressure drop, any other pertinent operating parameters, and the corrective action taken in the maintenance log.
- c. The person performing the determination shall stand at a distance of at least 15 feet which is sufficient to provide a clear view of the plume against a contrasting background with the sun in the 140° sector at his/her back. Consistent with this requirement, the determination shall be made from a position such that the line of vision is approximately perpendicular to the plume direction. Only one plume shall be in the line of sight at any time when multiple stacks are in proximity to each other.

**40 CFR 63 Subpart FFFF****NEW CONDITION**

**5.2.7** The Permittee shall comply with the following requirements for all continuous parameter monitoring systems in addition to the applicable requirements of 40 CFR 63 Subpart SS for continuous parameter monitoring systems (CPMS):  
[40 CFR 63.2450(k)]

- a. The Permittee must record the results of each calibration check and all maintenance performed on the CPMS as specified in 40 CFR 63.998(c)(1)(ii)(A). The Permittee must record all maintenance, not just preventative maintenance.  
[40 CFR 63.2450(k)(1)(i) and ii]

- b. The manufacturer’s specifications or the Permittee’s written procedures must include a schedule for calibrations, preventative maintenance procedures, a schedule for preventative maintenance, and corrective actions to be taken if a calibration fails. If a CPMS calibration fails, the CPMS is considered inoperative until corrective action is taken and the system passes calibration. The Permittee must record the nature and cause of instances when the CPMS is inoperative and the corrective action taken.**  
[40 CFR 63.2450(k)(7)]

**NEW CONDITION**

- 5.2.8 If flow from Group 1 Batch Process vents to a control device used to comply with 40 CFR 63 Subpart FFFF could be intermittent, the Permittee shall install, calibrate, and operate a flow indicator at the inlet or outlet of any control device to identify periods of no flow. Periods of no flow may not be used in daily averages and it may not be used in fulfilling a minimum data availability requirement.**  
[40 CFR 63.2460(c)(7)]

**PART 6.0 OTHER RECORD KEEPING AND REPORTING REQUIREMENTS****6.1 General Record Keeping and Reporting Requirements**

## MODIFIED CONDITION

6.1.7 For the purpose of reporting excess emissions, exceedances or excursions in the report required in Condition 6.1.4, the following excess emissions, exceedances, and excursions shall be reported:

[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

- a. [no changes]
- b. Exceedances: (means for the purpose of this Condition and condition 6.1.4, any condition that is detected by monitoring or record keeping that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) do not meet the applicable emission limitation or standard consistent with the averaging period specified for averaging the results of the monitoring)
  - i. – ii. [no changes]

## NEW CONDITIONS

- iii. **Any 12-month rolling period during which the total SO<sub>2</sub> emissions from the facility-wide sources of SO<sub>2</sub> calculated in accordance with Condition 6.2.9, are in excess of the 100-ton limit in Condition 3.2.1. [Avoidance of 40 CFR Part 52.21]**
- iv. **Any 12-month rolling period during which the total NO<sub>x</sub> emissions from the facility-wide sources of NO<sub>x</sub> calculated in accordance with Condition 6.2.9, are in excess of the 100-ton limit in Condition 3.2.1. [Avoidance of 40 CFR Part 52.21]**
- v. **Any 12-month rolling period during which the total VOC emissions from all facility-wide sources of non-exempt equipment calculated in accordance with Condition 6.2.9, are in excess of the 100-ton limit in Condition 3.2.2. [Avoidance of 40 CFR Part 52.21]**
- vi. **Any 12-month rolling period during which the CO emissions from all facility-wide sources of non-exempt equipment calculated in accordance with Condition 6.2.9, are in excess of the 100-ton limit in Condition 3.2.3. [Avoidance of 40 CFR Part 52.21]**



**Boilers**

- vii. **Any time a fuel that does not meet the sulfur content requirements of Condition 3.3.5 is burned in the boilers subject to that condition. [40 CFR 60 Subpart Dc Avoidance for Monitoring Opacity, SO<sub>2</sub> and PM; 391-3-1-.02(2)(g) Subsumed]**
- c. Excursions: (means for the purpose of this Condition and Condition 6.1.4, any departure from an indicator range or value established for monitoring consistent with any averaging period specified for averaging the results of the monitoring)
- i. – iii. [no changes]

**Sulfone Process****MODIFIED CONDITION**

- iv. Any determination of outlet coolant temperature for Condensers with Source Codes 0C2A, 0C2G, 0C2L, 0C5A, 0C5B, 0C6A, 0C6C, 0C7B, C6F, **LE-488, LE-580, LE-368, and LE-347** greater than 12.8°C, unless the emissions routed to a given condenser are routed to a carbon adsorber within 15 minutes of a temperature determination greater than 12.8°C.
- (A) **Any daily average outlet coolant temperature for Condensers with Source Codes 0C7A (LE-680), C7D (LE-679), and D576 (LE-576) greater than the temperature determined as required by Permit Condition 4.2.9. For the purposes of this condition, a “daily average” is defined as the 24-hour period from 12 am to 12 am (or other 24-hour period agreed upon by the Permittee and the Division). Prior to the modifications described in Application No. 29216, the maximum temperature for the existing condensers is 12.8°C. If the TRE values are determined to be more than 5.0, thus allowing the required temperature recording to be reduced to once per working shift, any determination of outlet coolant temperature for these Condensers greater than the temperature determined as required by Permit Condition 4.2.9 shall be reported instead. If the TRE is determined to be more than 5.0, no reporting is required if the emissions from the subject condensers are temporarily sent to a carbon adsorber within 15 minutes of a temperature determination greater than 12.8°C or the temperature determined as required by Permit Condition 4.2.9. Any emissions diversion to a carbon adsorber subject to these requirements must be reported to the Division if the emissions are diverted more than 48 consecutive hours.**
- v. – xv. [no changes]

KetaSpire/NovaSpire Process

## MODIFIED CONDITION

xvi. Any determination of pressure drop from:

(A) Carbonate Scrubber SC-1 **and SC-3** (controlling Source Codes PR-200 **and PR-2200**) greater than 15 inches water column.

(B) [no change]

xvii. – xviii. [no changes]

## NEW CONDITIONS

Sarsaparilla Process

For the purpose of this condition a “daily average” is defined as the 24-hour period from 12 AM to 12 AM (or other 24-hour period agreed upon by the Permittee and the Division).

xix. **Any daily average fire box chamber temperature for either of the thermal oxidizers (Source Codes HB-1800 and HB-1801) that is less than the value determined for each thermal oxidizer from the initial performance test or through subsequent approved performance testing.**  
[40 CFR 63.2460(a) and 63.2470(a); 40 CFR 63.998(b)(6)(i)]

xx. **Any daily average pH of the effluent liquid from either of the thermal oxidizer scrubbers (Source Codes HT-1800 and HT-1801) that is less than the value determined from the initial performance test or through subsequent approved performance testing.**  
[40 CFR 63.2450(k)(2), 63.2460(a) and 63.2470(a); 40 CFR 63.998(b)(6)(i)]

xxi. **Any daily average liquid flow of the influent to either of the thermal oxidizer scrubbers (Source Codes HT-1800 and HT-1801) that is less than the value determined from the initial performance test or through subsequent approved performance testing.**  
[40 CFR 63.2450(k)(2), 63.2460(a) and 63.2470(a); 40 CFR 63.998(b)(6)(i)]

xxii. **Any daily average gas stream inlet flow to either of the thermal oxidizer scrubbers (Source Codes HT-1800 and HT-1801) that is greater than the value determined during the initial performance test or through subsequent approved performance testing.**  
[40 CFR 63.2450(k)(2), 63.2460(a) and 63.2470(a); 40 CFR 63.998(b)(6)(i)]

- xxiii. Any daily average pH of the effluent liquid from the HCl storage scrubber (Source Code HT-1811) that is less than the value determined during the initial performance test or through subsequent approved performance testing.  
[40 CFR 63.2450(k)(2), 63.2460(a) and 63.2470(a); 40 CFR 63.998(b)(6)(i)]
- xxiv. Any daily average scrubber inlet liquid or recirculating liquid flow rate to the HCl storage scrubber (Source Code HT-1811) that is less than the value determined during the initial performance test or through subsequent approved performance testing.  
[40 CFR 63.2450(k)(2), 63.2460(a) and 63.2470(a); 40 CFR 63.998(b)(6)(i)]
- xxv. Any daily average gas stream inlet flow to the HCl Scrubber (Source Code HT-1811) that is greater than the value determined during the initial performance test or through subsequent approved performance testing.  
[40 CFR 63.2450(k)(2), 63.2460(a) and 63.2470(a); 40 CFR 63.998(b)(6)(i)]
- xxvi. pH of the effluent liquid from the X2 and X4 Scrubber (Source Code HT-493) less than the value provided by the manufacturer's recommendation.
- xxvii. Any two consecutive required daily determinations of visible emissions from a baghouse or dust collector per Condition 5.2.6.  
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]
- xxviii. Any adverse condition as discovered by the weekly baghouse inspection required by Condition 5.2.5 that is not corrected within 24 hours.  
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]
- xxvix. Any time the pressure drop for a baghouse is outside of the applicable range and corrective action fails to return the pressure drop into the specified range within 24 hours of operation.  
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

## 6.2 Specific Record Keeping and Reporting Requirements

### MODIFIED CONDITION

- 6.2.13 The Permittee shall keep records of each incidence the condensers with Source Codes 0C2A, 0C2G, 0C2L, 0C5A, 0C5B, 0C6A, 0C6C, 0C7A, 0C7B, C6F, C7D, D576, **LE-488, LE-580, LE-368, and LE-347** vent to the carbon adsorber, when carbon is replaced, and when breakthrough occurs. These records shall be submitted with the report required by Condition 6.1.4.  
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

## MODIFIED CONDITION

6.2.20 The Permittee shall submit 40 CFR 63 Subpart FFFF semiannual compliance reports covering the semiannual period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Each compliance report must be postmarked or delivered no later than August 31 or February 28, whichever date is the first date following the end of the semiannual reporting periods. **Once the reporting template for 40 CFR 63 Subpart FFFF has been available on the CEDRI website for one year all subsequent reports shall also go to the EPA via CEDRI.** The semiannual compliance report must include the following information:

[40 CFR 63.2450(m), 40 CFR 63.2520(b) and 40 CFR 63.2520(e)]

- a. Company name and address.  
[40 CFR 63.2520(e)(1)]
- b. Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.  
[40 CFR 63.2520(e)(2)]
- c. Date of report and beginning and ending dates of the reporting period.  
[40 CFR 63.2520(e)(3)]
- d. [Reserved]
- e. The compliance report must contain the information on deviations, as defined in 40 CFR 63.2550, according to the following paragraphs.  
[40 CFR 63.2520(e)(5)]
  - i. If there are no deviations from any emission limit, operating limit or work practice standard specified in 40 CFR 63 Subpart FFFF, include a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.  
[40 CFR 63.2520(e)(5)(i)]
  - ii. For each deviation from an emission limit, operating limit, and work practice standard that occurs at an affected source where the Permittee is not using a continuous monitoring system (CMS) to comply with the emission limit or work practice standard in **40 CFR 63 Subpart FFFF**, the Permittee must include the information **in the following paragraphs**. This includes periods of SSM.  
[40 CFR 63.2520(e)(5)(ii)]
    - (A) The total operating time of the affected source during the reporting period.  
[40 CFR 63.2520(e)(5)(ii)(A)]
    - (B) [Reserved]

- (C) Operating logs of processes with batch vents from batch operations for the day(s) during which the deviation occurred, except operating logs are not required for deviations of the work practice standards for equipment leaks. The Xydar Process is subject to these provisions for campaigns that meet the applicability requirements of 40 CFR 63.2435(b).  
[40 CFR 63.2520(e)(5)(ii)(C)]
  
- (D) **Information for each deviation to meet an applicable standard. For each instance, report the start date, start time, and duration in hours of each deviation. For each deviation, the report must include a list of the affected sources or equipment, an estimate of the quantity in pounds of each regulated pollutant emitted over any emission limit, a description of the method used to estimate the emissions, the cause of the deviation (including unknown cause, if applicable), as applicable, and the corrective action taken.**  
[40 CFR 63.2520(e)(5)(ii)(D)]
  
- iii. **For each deviation from an emission limit or operating limit occurring at an affected source where the Permittee is using a CMS to comply with an emission limit in 40 CFR 63 Subpart FFFF, the Permittee must include the information in the following paragraphs. This includes periods of SSM.**  
[40 CFR 63.2520(e)(5)(iii)]
  - (A) **The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.**  
[40 CFR 63.2520(e)(5)(iii)(A)]
  
  - (B) **A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total operating time of the affected source during that reporting period.**  
[40 CFR 63.2520(e)(5)(iii)(D), 391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]
  
  - (C) **A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.**  
[40 CFR 63.2520(e)(5)(iii)(E)]
  
  - (D) **A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the affected source during that reporting period.**  
[40 CFR 63.2520(e)(5)(iii)(F)]
  
  - (E) **An identification of each HAP that is known to be in the emission stream.**  
[40 CFR 63.2520(e)(5)(iii)(G)]

- (F) **A brief description of the process units.**  
[40 CFR 63.2520(e)(5)(iii)(H)]
  - (G) **A brief description of the CMS.**  
[40 CFR 63.2520(e)(5)(iii)(I)]
  - (H) **The date of the latest CMS certification or audit.**  
[40 CFR 63.2520(e)(5)(iii)(J)]
  - (I) **Operating logs of processes with batch vents from batch operations for each day(s) during which the deviation occurred.**  
[40 CFR 63.2520(e)(5)(iii)(K)]
  - (J) **The operating day or operating block average values of monitored parameters for each day(s) during which the deviation occurred.**  
[40 CFR 63.2520(e)(5)(iii)(L)]
  - (K) **The number of deviations to meet an applicable standard. For each instance, report the start date, start time and duration in hours of each deviation. For each deviation, the report must include a list of the affected sources or equipment, an estimate of the quantity in pounds of each regulated pollutant emitted over any emission limit, a description of the method used to estimate the emissions, and the cause of the deviation (including unknown cause, if applicable), as applicable, and the corrective action taken.**  
[40 CFR 63.2520(e)(5)(iii)(M)]
  - (L) **A breakdown of the total duration in hours of the deviations during the operating period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.**  
[40 CFR 63.2520(e)(5)(iii)(N)]
- iv. **If the Permittee documented in the notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive HAP is the only HAP and usage is less than 10,000 lb/yr, the total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, or total uncontrolled hydrogen halide and halogen HAP emissions from all batch process vents and continuous process vents in a process are less than 1,000 lb/yr, include the records associated with each calculation required by 40 CFR 63.2525(e) that exceeds an applicable HAP usage or emissions threshold.**  
[40 CFR 63.2520(e)(5)(iv)]

## Title V Permit Amendment

- f. Include each new operating scenario which has been operated since the time period covered by the last compliance report and has not been submitted in the notification of compliance status report or a previous compliance report. For each new operating scenario, the Permittee must provide verification that the operating conditions for any associated control or treatment device have not been exceeded and that any required calculations and engineering analyses have been performed. For the purposes of this paragraph, a revised operating scenario for an existing process is considered to be a new operating scenario.  
[40 CFR 63.2520(e)(7)]
- g. **Records of process units added to a process unit group (PUG) as specified in 40 CFR 63.2525(i)(4) and records of primary product redeterminations as specified in 40 CFR 63.2525(i)(5).**  
[40 CFR 63.2520(e)(8)]
- h. Applicable records and information for periodic reports as specified in referenced subparts of 40 CFR Part 63.  
[40 CFR 63.2520(e)(9)]
- i. Notification of process change as described in 40 CFR 63.2520(e)(10).  
[40 CFR 63.2520(e)(10)]
- j. **For bypass lines subject to the requirements of 40 CFR 63.2450(e)(6) and Condition 3.3.31, the compliance report must include the start date, start time, duration in hours, estimate of the volume of gas in standard cubic feet, the concentration of organic HAP in the gas in parts per million by volume and the resulting mass emissions of organic HAP in pounds that bypass a control device. For periods when the flow indicator is not operating, report the start date, start time, and duration in hours.**  
[40 CFR 63.2520(e)(12)]
- k. **Compliance reports for pressure relief devices subject to the requirements of 40 CFR 63.2480(e) and Condition 3.3.33 must include the information specified in paragraphs k.i. through k.iii. of this condition, below.**  
[40 CFR 63.2520(e)(15)]
  - i. **For pressure relief devices in organic HAP gas or vapor service, pursuant to 40 CFR 63.2480(e)(1), report the instrument readings and dates for all readings of 500 ppmv or greater.**
  - ii. **For pressure relief devices in organic HAP gas or vapor service subject to 40 CFR 63.2480(e)(2), report the instrument readings and dates of instrument monitoring conducted.**

- iii. **For pressure relief devices in organic HAP service subject to 40 CFR 63.2480(e)(3), report each pressure release to the atmosphere, including the start date, start time, and duration in minutes of the pressure release and an estimate of the mass quantity in pounds of each organic HAP released; the results of any root cause analysis and corrective action analysis completed during the reporting period; and, if applicable, the implementation schedule for planned corrective actions to be implemented subsequent to the reporting period.**

## MODIFIED CONDITION

- 6.2.21 The Permittee shall maintain records as specified in 40 CFR 63.2525(a) through (k) for the operation of the **applicable MON processes**. These provisions only apply to the Xydar Process for campaigns meeting the applicability requirements of 40 CFR 63.2435(b).  
[40 CFR 63.2525(a) through (k)]
- a. Each applicable record required by 40 CFR 63 Subpart A and in referenced Subparts F, G, and UU of 40 CFR 63 including the records required by Conditions 6.2.19 (maintenance wastewater), Condition 6.2.14 (Group 2 Wastewater), Conditions 6.2.15 and 6.2.16 (Equipment Leaks), Condition 6.1.5 and Condition 6.1.6.  
[40 CFR 63.2525(a)]
  - b. Records of each operating scenario as specified in the following paragraphs.  
[40 CFR 63.2525(b)]
    - i. A description of the process and the type of process equipment used.  
[40 CFR 63.2525(b)(1)]
    - ii. An identification of related process vents, including their associated emissions episodes; wastewater point of determination (POD); storage tanks; and transfer racks.  
[40 CFR 63.2525(b)(2)]
    - iii. The applicable control requirements of 40 CFR 63 Subpart FFFF, including the level of required control, and for vents, the level of control for each vent.  
[40 CFR 63.2525(b)(3)]
    - iv. The control device or treatment process used, as applicable, including a description of operating and/or testing conditions for any associated control device.  
[40 CFR 63.2525(b)(4)]
    - v. The process vents, wastewater POD, transfer racks, and storage tanks (including those from other processes) that are simultaneously routed to the control device or treatment processes.  
[40 CFR 63.2525(b)(5)]



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- vi. The applicable monitoring requirements of 40 CFR 63 Subpart FFFF and any parametric level that assures compliance for all emissions routed to the control device or treatment process.  
[40 CFR 63.2525(b)(6)]
- vii. Calculations and engineering analyses required to demonstrate compliance.  
[40 CFR 63.2525(b)(7)]
- viii. For reporting purposes, a change to any of these elements not previously reported, except for paragraph (b)(v) of this condition, constitutes a new operating scenario.  
[40 CFR 63.2525(b)(8)]
- c. A schedule or log of operating scenarios for processes with batch vents from batch operations updated each time a different operating scenario is put into effect.  
[40 CFR 63.2525(c)]
- d. Records required by Condition 6.2.18 for Group 2 Batch Process Vents in the Xydar Process.  
[40 CFR 63.2525(e)]
- e. **The information specified in paragraphs e.ii., e.iii., or e.iv. of this condition, as applicable, for each process with Group 2 batch process vents or uncontrolled hydrogen halide and halogen HAP emissions from the sum of all batch and continuous process vents less than 1,000 lb/yr. No records are required for situations described in paragraph e.i. of this condition.**  
[40 CFR 63.2525(e)]
  - i. **No records are required if the following are documented in the Permittee's notification of compliance status report that the MCPU meets any of the situations described in paragraph e.i.(A) or e.i.(B) of this condition.**  
[40 CFR 63.2525(e)(1)]
    - (A) **The MCPU does not process, use, or generate HAP.**  
[40 CFR 63.2525(e)(1)(i)]
    - (B) **The Permittee controls the Group 2 batch process vents using a control device for which the Permittee's determination of worst case for initial compliance includes the contribution of all Group 2 batch process vents.**  
[40 CFR 63.2525(e)(1)(iii)]

- ii. If the Permittee documented in the notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive organic HAP is the only HAP and usage is less than 10,000 lb/yr, as specified in 40 CFR 63.2460(b)(7), the Permittee must keep records of the amount of HAP material used and calculate the daily rolling annual sum of the amount used no less frequently than monthly. If a record indicates usage exceeds 10,000 lb/yr, the Permittee must estimate emissions for the preceding 12 months based on the number of batches operated and the estimated emissions for a standard batch, and the Permittee must begin recordkeeping as specified in paragraph e.iv. of this condition. After 1 year, the Permittee may revert to recording only usage if the usage during the year is less than 10,000 lb.  
[40 CFR 63.2525(e)(2)]
- iii. If the Permittee documented in the notification of compliance status report that total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, then the Permittee must keep records of the number of batches operated and calculate a daily rolling annual sum of batches operated no less frequently than monthly. If the number of batches operated results in organic HAP emissions that exceed 1,000 lb/yr, the Permittee must estimate emissions for the preceding 12 months based on the number of batches operated and the estimated emissions for a standard batch, and the Permittee must begin recordkeeping as specified in paragraph e.iv. of this condition. After 1 year, the Permittee may revert to recording only the number of batches if the number of batches operated during the year results in less than 1,000 lb of organic HAP emissions.  
[40 CFR 63.2525(e)(3)]
- iv. If the Permittee meets none of the conditions specified in paragraphs e.i. through e.iii. of this condition, the Permittee must keep records of the following information.  
[40 CFR 63.2525(e)(4)]
- (A) A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.  
[40 CFR 63.2525(e)(4)(i)]
- (B) A record of whether each batch operated was considered a standard batch.  
[40 CFR 63.2525(e)(4)(ii)]
- (C) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.  
[40 CFR 63.2525(e)(4)(iii)]

**(D) Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.**

**[40 CFR 63.2525(e)(4)(iv); 40 CFR 63.2525(f); 40 CFR 63.2450(t)]**

- f. If the Permittee uses process knowledge to determine the annual average concentration of a wastewater stream as specified in 40 CFR 63.144(b)(3) of 40 CFR 63 Subpart G and/or uses process knowledge to determine the annual average flow rate as specified in 40 CFR 63.144(c)(1) of 40 CFR 63 Subpart G, and determines that the wastewater is not a Group 1 wastewater stream, the Permittee shall keep in a readily accessible location the documentation of how process knowledge was used to determine the annual average concentration and/or the annual average flow rate of the wastewater stream.  
[40 CFR 63.147(f)]
- g. **Records of the results of each CPMS calibration check and the maintenance performed, as specified in 40 CFR 63.2450(k)(1).**  
[40 CFR 63.2525(g)]
- h. [Reserved]
- i. **For each flow event from a bypass line subject to the requirements in 40 CFR 63.2450(e)(6), the Permittee must maintain records sufficient to determine whether or not the detected flow included flow requiring control. For each flow event from a bypass line requiring control that is released either directly to the atmosphere or to a control device not meeting the requirements specified in Tables 1 through 7 of 40 CFR 63 Subpart FFFF, the Permittee must include an estimate of the volume of gas, the concentration of organic HAP in the gas and the resulting emissions of organic HAP that bypassed the control device using process knowledge and engineering estimates.**  
[40 CFR 63.2525(n)]
- j. **For each pressure relief device subject to the pressure release management work practice standards in 40 CFR 63.2480(e), the Permittee must keep the records specified in paragraphs j.i. through j.iii. below.**  
[40 CFR 63.2525(q)]
- i. **Records of the prevention measures implemented as required in 40 CFR 63.2480(e)(3)(ii).**
  - ii. **Records of the number of releases during each calendar year and the number of those releases for which the root cause was determined to be a *force majeure* event. Keep these records for the current calendar year and the past 5 calendar years.**
  - iii. **For each release to the atmosphere, the Permittee must keep the records specified in paragraphs j.iii.(A) through j.iii.(D) below:**

- (A) The start and end time and date of each pressure release to the atmosphere.
  - (B) Records of any data, assumptions, and calculations used to estimate of the mass quantity of each organic HAP released during the event.
  - (C) Records of the root cause analysis and corrective action analysis conducted as required in 40 CFR 63.2480(e)(3)(iii), including the information further specified in 40 CFR 63.2525(q)(3)(iii).
  - (D) For any corrective action analysis for which implementation of corrective actions are required in 40 CFR 63.2480(e)(7), a description of the corrective action(s) completed within the first 45 days following the discharge and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.
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- k. For each monitoring location where the total strippable hydrocarbon concentration or total hydrocarbon mass emissions rate was determined to be equal to or greater than applicable leak definitions specified in 40 CFR 63.2490(d)(1)(v) during the reporting period, identification of the monitoring location (e.g., unique monitoring location or heat exchange system ID number), the measured total strippable hydrocarbon concentration or total hydrocarbon mass emissions rate, the date the leak was first identified, and, if applicable, the date the source of the leak was identified;  
[40 CFR 63.2520(e)(16)(iii)]
  - l. For leaks that were repaired during the reporting period (including delayed repairs), identification of the monitoring location associated with the repaired leak, the total strippable hydrocarbon concentration or total hydrocarbon mass emissions rate measured during re-monitoring to verify repair, and the re-monitoring date (i.e., the effective date of repair); and  
[40 CFR 63.2520(e)(16)(iv)]
  - m. For each delayed repair, identification of the monitoring location associated with the leak for which repair is delayed, the date when the delay of repair began, the date the repair is expected to be completed (if the leak is not repaired during the reporting period), the total strippable hydrocarbon concentration or total hydrocarbon mass emissions rate and date of each monitoring event conducted on the delayed repair during the reporting period, and an estimate in pounds of the potential total hydrocarbon emissions over the reporting period associated with the delayed repair.  
[40 CFR 63.2520(e)(16)(v)]

**MODIFIED HEADERS**

~~Sulfone Process~~– 40 CFR 63 Subpart FFFF - Wastewater Recordkeeping Requirements

~~Sulfone Process~~– 40 CFR 63 Subpart UU for Equipment Leaks – Record keeping and Reporting

~~Xydar Process~~– Group 2 Batch Process Vents - Recordkeeping Requirements

**NEW CONDITIONS****40 CFR 63 Subpart SS**

- 6.2.22 The Permittee shall maintain the records described in 40 CFR 63.998(a) regarding compliance assessment, monitoring, and compliance records for the operation of the equipment subject to 40 CFR 63 Subpart FFFF and 40 CFR 63 Subpart SS.  
[40 CFR 63.998(a)]**
- 6.2.23 The Permittee shall maintain the following records regarding continuous records and monitoring system data handling for the operation of the equipment subject to 40 CFR 63 Subpart FFFF and 40 CFR 63 Subpart SS.  
[40 CFR 63.998(b)]**
- a. Where 40 CFR 63 Subpart SS requires a continuous record, the Permittee shall maintain a record as specified in the following paragraphs, as applicable:  
[40 CFR 63.998(b)(1)]**
- i. A record of values measured at least once every 15 minutes or each measured value for systems which measure more frequently than once every 15 minutes; or  
[40 CFR 63.998(b)(1)(i)]**
- ii. A record of block average values for 15-minute or shorter periods calculated from all measured data values during each period or from at least one measured data value per minute if measured more frequently than once per minute.  
[40 CFR 63.998(b)(1)(ii)]**
- iii. Where data is collected from an automated continuous parameter monitoring system, the Permittee may calculate and retain block hourly average values from each 15-minute block average period or from at least one measured value per minute if measured more frequently than once per minute, and discard all but the most recent three valid hours of continuous (15-minute or shorter) records, if the hourly averages do not exclude periods of CPMS breakdown or malfunction. An automated CPMS records the measured data and calculates the hourly averages through the use of a computerized data acquisition system.  
[40 CFR 63.998(b)(1)(iii)]**

- iv. A record as required by an alternative approved under a referencing subpart.  
[40 CFR 63.998(b)(1)(iv)]
- b. Monitoring data recorded during periods identified in the following paragraphs shall not be included in any average computed to determine compliance with an emission limit in a referencing subpart.  
[40 CFR 63.998(b)(2)]
- i. Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments;  
[40 CFR 63.998(b)(2)(i)]
- ii. Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies; and  
[40 CFR 63.998(b)(2)(ii)]
- c. In addition to the records specified in Condition 6.2.24 and 6.2.25, the Permittee shall keep records as specified in paragraphs c.i. and c.ii. of this condition and submit reports as specified in Condition 6.2.26, unless an alternative recordkeeping system has been requested and approved under a referencing subpart.  
[40 CFR 63.998(b)(3)]
- i. Except as specified in paragraph c.ii. of this condition, daily average values of each continuously monitored parameter shall be calculated from data meeting the specifications of paragraph b. of this condition for each operating day and retained for 5 years.  
[40 CFR 63.998(b)(3)(i)]
- (A) The daily average shall be calculated as the average of all values for a monitored parameter recorded during the operating day. The average shall cover a 24-hour period if operation is continuous, or the period of operation per operating day if operation is not continuous (e.g., for transfer racks the average shall cover periods of loading). If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the daily average instead of all measured values.  
[40 CFR 63.998(b)(3)(i)(A)]
- (B) The operating day shall be the period defined in the operating permit or in the Notification of Compliance Status. It may be from midnight to midnight or another daily period.  
[40 CFR 63.998(b)(3)(i)(B)]

- ii. **If all recorded values for a monitored parameter during an operating day are within the limit established in the Notification of Compliance Status or in the operating permit, the Permittee may record that all values were within the limit and retain this record for 5 years rather than calculating and recording a daily average for that operating day. In such cases, the Permittee may not discard the recorded values as allowed in paragraph a.iii. of this condition.**

[40 CFR 63.998(b)(3)(ii)]

**d. Excursions**

[40 CFR 63.998(b)(6)]

- i. **For the purposes of this paragraph, an excursion means that the daily average value of monitoring data for a parameter is greater than the maximum, or less than the minimum established value.**

[40 CFR 63.998(b)(6)(i)]

**6.2.24 The Permittee shall maintain the following records regarding monitoring for the operation of the equipment subject to 40 CFR 63 Subpart FFFF and 40 CFR 63 Subpart SS.**

[40 CFR 63.998(c)]

- a. **For process vents, the Permittee shall keep the records specified in this condition, as well as records specified elsewhere in 40 CFR 63 Subpart SS.**

[40 CFR 63.998(c)(1)]

- i. **For a CPMS, a record of the procedure used for calibrating the CPMS.**

[40 CFR 63.998(c)(1)(i)]

- ii. **For a CPMS, records of the information specified in the following paragraphs.**

[40 CFR 63.998(c)(1)(ii)]

- (A) **The date and time of completion of calibration and preventive maintenance of the CPMS.**

[40 CFR 63.998(c)(1)(ii)(A)]

- (B) **The “as found” and “as left” CPMS readings, whenever an adjustment is made that affects the CPMS reading and a “no adjustment” statement otherwise.**

[40 CFR 63.998(c)(1)(ii)(B)]

- (C) **The start time and duration or start and stop times of any periods when the CPMS is inoperative.**

[40 CFR 63.998(c)(1)(ii)(C)]

- (D) **Records of the total duration of operating time.**

[40 CFR 63.998(c)(1)(ii)(H)]

- b. Combustion control and halogen reduction device monitoring records.  
[40 CFR 63.998(c)(2)]**
- i. The Permittee shall keep the following records up-to-date and readily accessible, as applicable for a combustion control or a halogen reduction device. Continuous records of the equipment operating parameters specified to be monitored under 40 CFR 63.988(c) (incinerator), and 63.994(c) (halogen reduction device monitoring) or approved by the Division in accordance with a referencing subpart.  
[40 CFR 63.998(c)(2)(i)]**
  - ii. The Permittee shall keep records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in Condition 6.2.23.c.i. For halogen scrubbers record the daily average pH and the liquid-to-gas ratio.  
[40 CFR 63.998(c)(2)(ii)]**
  - iii. The Permittee shall keep up-to-date, readily accessible records of periods of operation during which the parameter boundaries are exceeded. The parameter boundaries are established pursuant to 40 CFR 63.996(c)(6).  
[40 CFR 63.998(c)(2)(iii)]**
- c. Nonflare control and recovery device regulated source monitoring records.  
[40 CFR 63.998(c)(3)]**
- i. The Permittee shall keep records of the daily average value of each continuously monitored parameter for each operating day determined according to the procedures specified in Condition 6.2.24.c.i.  
[40 CFR 63.998(c)(3)(ii)]**
  - ii. The Permittee shall keep up-to-date, readily accessible records of periods of operation during which the parameter boundaries are exceeded. The parameter boundaries are established pursuant to 40 CFR 63.996(c)(6).  
[40 CFR 63.998(c)(3)(iii)]**



**6.2.25 The Permittee shall maintain the following records for the operation of the equipment subject to 40 CFR 63 Subpart FFFF and 40 CFR 63 Subpart SS.  
[40 CFR 63.998(d)]**

**a. For closed vent systems the Permittee shall record the information specified in the following paragraphs, as applicable.  
[40 CFR 63.998(d)(1)]**

**i. For closed vent systems collecting regulated material from a regulated source, the Permittee shall record the identification of all parts of the closed vent system, that are designated as unsafe or difficult to inspect, an explanation of why the equipment is unsafe or difficult to inspect, and the plan for inspecting the equipment required by Condition 3.3.34.b.ii.  
[40 CFR 63.998(d)(1)(i)]**

**ii. For each closed vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the Permittee shall keep a record of the information specified in either of the following paragraphs, as applicable.  
[40 CFR 63.998(d)(1)(ii)]**

**(A) Hourly records of whether the flow indicator specified under Condition 3.3.34.a.iii.(A) was operating and whether a diversion was detected at any time during the hour, as well as records of the times of all periods when the vent stream is diverted from the control device or the flow indicator is not operating.  
[40 CFR 63.998(d)(1)(ii)(A)]**

**(B) Where a seal mechanism is used to comply with Condition 3.3.34.a.iii.(B), hourly records of flow are not required. In such cases, the Permittee shall record that the monthly visual inspection of the seals or closure mechanisms has been done, and shall record the occurrence of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has been broken.  
[40 CFR 63.998(d)(1)(ii)(B)]**

**iii. For a closed vent system collecting regulated material from a regulated source, when a leak is detected as specified in Condition 3.3.34.c.ii, the information specified in the following paragraphs shall be recorded and kept for 5 years.  
[40 CFR 63.998(d)(1)(iii)]**

**(A) The instrument and the equipment identification number and the operator name, initials, or identification number.  
[40 CFR 63.998(d)(1)(iii)(A)]**

- (B) The date the leak was detected and the date of the first attempt to repair the leak.**  
[40 CFR 63.998(d)(1)(iii)(B)]
- (C) The date of successful repair of the leak.**  
[40 CFR 63.998(d)(1)(iii)(C)]
- (D) The maximum instrument reading measured by the procedures in 40 CFR 63.983(c) after the leak is successfully repaired or determined to be nonrepairable.**  
[40 CFR 63.998(d)(1)(iii)(D)]
- (E) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 days after discovery of the leak. The Permittee may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.**  
[40 CFR 63.998(d)(1)(iii)(E)]
- (F) Copies of the Periodic Reports as specified in Condition 6.2.26, if records are not maintained on a computerized database capable of generating summary reports from the records.**  
[40 CFR 63.998(d)(1)(iii)(F)]
- iv. For each instrumental or visual inspection conducted in accordance with Condition 3.3.33.b.i for closed vent systems collecting regulated material from a regulated source during which no leaks are detected, the Permittee shall record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.**  
[40 CFR 63.998(d)(1)(iv)]
- b. The Permittee shall keep readily accessible records of information, as applicable, for storage vessels: A record of the planned routine maintenance performed on the control system during which the control system does not meet the applicable specifications of Condition 3.3.33.a, as applicable, due to the planned routine maintenance. Such a record shall include the information specified in the following paragraphs. This information shall be submitted in the Periodic Reports as specified in Condition 6.2.26c.**  
[40 CFR 63.998(d)(2)(ii)]

  - i. The first time of day and date the requirements of Condition 3.3.33.a, as applicable, were not met at the beginning of the planned routine maintenance, and**  
[40 CFR 63.998(d)(2)(ii)(A)]
  - ii. The first time of day and date the requirements of Condition 3.3.33.a, as applicable, were met at the conclusion of the planned routine maintenance.**  
[40 CFR 63.998(d)(2)(ii)(B)]

- iii. A description of the type of maintenance performed.**  
[40 CFR 63.998(d)(2)(ii)(C)]
- c. [Reserved]**
- d. The Permittee shall maintain records of the information specified in the following paragraphs for closed vent systems and control devices if specified by the equipment leak provisions in 40 CFR 63 Subpart FFFF. The records specified in paragraph d.i. of this condition shall be retained for the life of the equipment. The records specified in paragraph d.ii. of this condition shall be retained for 5 years.**  
[40 CFR 63.998(d)(4)]
- i. The design specifications and performance demonstrations specified in the following paragraphs.**  
[40 CFR 63.998(d)(4)(i)]
- (A) Detailed schematics, design specifications of the control device, and piping and instrumentation diagrams.**  
[40 CFR 63.998(d)(4)(i)(A)]
- (B) The dates and descriptions of any changes in the design specifications.**  
[40 CFR 63.998(d)(4)(i)(B)]
- (C) A description of the parameter or parameters monitored, as required in a referencing subpart, to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.**  
[40 CFR 63.998(d)(4)(i)(C)]
- ii. Records of operation of closed vent systems and control devices, as specified in the following paragraphs.**  
[40 CFR 63.998(d)(4)(ii)]
- (A) Dates and durations when the closed vent systems and control devices required are not operated as designed as indicated by the monitored parameters.**  
[40 CFR 63.998(d)(4)(ii)(A)]
- (B) Dates and durations during which the monitoring system or monitoring device is inoperative.**  
[40 CFR 63.998(d)(4)(ii)(B)]
- (C) Dates and durations of start-ups and shutdowns of control devices required in this subpart.**  
[40 CFR 63.998(d)(4)(ii)(C)]

- e. **The Permittee shall record the occurrences and the cause of periods when the monitored parameters are outside of the parameter limits documented in the Notification of Compliance Status report. This information shall also be reported in the Periodic Report.**  
[40 CFR 63.998(d)(5)]
- 6.2.26 The Permittee shall submit periodic reports for the operation of the equipment subject to 40 CFR 63 Subpart FFFF and 40 CFR 63 Subpart SS.**  
[40 CFR 63.999(c)]
- a. **Periodic reports shall include the reporting period dates, the total source operating time for the reporting period, and, as applicable, all information specified in this condition, including reports of periods when monitored parameters are outside their established limits.**  
[40 CFR 63.999(c)(1)]
- b. **For closed vent systems subject to the requirements of Condition 3.3.34, the Permittee shall submit as part of the periodic report the information specified in the following paragraphs, as applicable.**  
[40 CFR 63.999(c)(2)]
- i. **The information recorded in Condition 6.2.25.a.iii.(B) through a.iii.(E);**  
[40 CFR 63.999(c)(2)(i)]
- ii. **Reports of the times of all periods recorded under Condition 6.2.25.a.ii.(A) when the vent stream is diverted from the control device through a bypass line and is not immediately directed to another control device meeting the applicable requirements of 40 CFR 63 Subpart FFFF; and**  
[40 CFR 63.999(c)(2)(ii)]
- iii. **Reports of all times recorded under Condition 6.2.25.a.ii.(B) when maintenance is performed in car-sealed valves, when the seal is broken, when the bypass line valve position is changed, or the key for a lock-and-key type configuration has been checked out.**  
[40 CFR 63.999(c)(2)(iii)]
- c. **For storage vessels, the Permittee shall include in each periodic report required the information specified in the following paragraphs.**  
[40 CFR 63.999(c)(4)]
- i. **For the 6-month period covered by the periodic report, the information recorded in Condition 6.2.25.b.i. through b.iii.**  
[40 CFR 63.999(c)(4)(i)]
- ii. **For the time period covered by the periodic report and the previous periodic report, the total number of hours that the control system did not meet the requirements of Condition 3.3.28 due to planned routine maintenance.**  
[40 CFR 63.999(c)(4)(ii)]

- iii. A description of the planned routine maintenance during the next 6-month periodic reporting period that is anticipated to be performed for the control system when it is not expected to meet the required control efficiency. This description shall include the type of maintenance necessary, planned frequency of maintenance, and expected lengths of maintenance periods.  
[40 CFR 63.999(c)(4)(iii)]**
- d. If a control device other than a flare is used to control emissions from storage vessels, the periodic report shall describe each occurrence when the monitored parameters were outside of the parameter ranges documented in the Notification of Compliance Status. The description shall include the information specified in the following paragraphs.  
[40 CFR 63.999(c)(5)]**
- i. Identification of the control device for which the measured parameters were outside of the established limits, and  
[40 CFR 63.999(c)(5)(i)]**
- ii. The cause for the measured parameters to be outside of the established limits.  
[40 CFR 63.999(c)(5)(ii)]**
- e. For process vents, periodic reports shall include the information specified in the following paragraphs.  
[40 CFR 63.999(c)(6)]**
- i. Periodic reports shall include the daily average values of monitored parameters, calculated as specified in Condition 6.2.23.c.i. for any days when the daily average value is outside the bounds as defined in Condition 6.2.24.b.iii., or the data availability requirements defined in the following paragraphs are not met, whether these excursions are excused or unexcused excursions. For excursions caused by lack of monitoring data, the duration of periods when monitoring data were not collected shall be specified. An excursion means any of the cases listed in paragraphs e.i.(A) through e.i.(C) of this condition.  
[40 CFR 63.999(c)(6)(i)]**
- (A) When the daily average value of one or more monitored parameters is outside the permitted limit.  
[40 CFR 63.999(c)(6)(i)(A)]**
- (B) When the period of control or recovery device operation is 4 hours or greater in an operating day and monitoring data are insufficient to constitute a valid hour of data for at least 75 percent of the operating hours.  
[40 CFR 63.999(c)(6)(i)(B)]**

(C) When the period of control or recovery device operation is less than 4 hours in an operating day and more than one of the hours during the period of operation does not constitute a valid hour of data due to insufficient monitoring data.

[40 CFR 63.999(c)(6)(i)(C)]

(D) Monitoring data are insufficient to constitute a valid hour of data as used in paragraphs e.i.(B) and e.i.(C) of this condition, if measured values are unavailable for any of the 15-minute periods within the hour.

[40 CFR 63.999(c)(6)(i)(D)]

**6.2.27** For any pressure relief devices subject to the pressure release management work practice standards in 40 CFR 63.2480(e)(3) and Condition 3.3.32, the Permittee must submit the following information in a supplement to the Notification of Compliance Status within 150 days after the placing of applicable pressure relief device(s) into service for pressure relief device monitoring:

[40 CFR 63.2520(d)(4)]

a. A description of the monitoring system to be implemented, including the relief devices and process parameters to be monitored, and a description of the alarms or other methods by which operators will be notified of a pressure release.

b. A description of the prevention measures to be implemented for each affected pressure relief device.

**6.2.28** The Permittee shall submit an Initial Compliance Status Report according to the procedures in the referencing subpart for equipment subject to the provisions of 40 CFR 63 Subpart UU. The notification shall include the information listed in 40 CFR 63.1039(a), as applicable.

[40 CFR 63.1039(a)]

**6.2.29** For monitoring equipment required by 40 CFR 63 Subpart FFFF, the manufacturer's specifications or the Permittee's written procedures must include a schedule for calibrations, preventative maintenance procedures, a schedule for preventative maintenance, and corrective actions to be taken if a calibration fails. If a CPMS calibration fails, the CPMS is considered to be inoperative until the Permittee takes corrective action and the system passes calibration. The Permittee must record the nature and cause of instances when the CPMS is inoperative and the corrective action taken.

[40 CFR 63.2450(k)(7)]

**6.2.30** The Permittee shall maintain records of the hours of operation during which HT-305 vents to the atmosphere instead of to the thermal oxidizer system. These records shall be used to calculate monthly emissions of VOC.

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- 6.2.31 The Permittee shall submit to the Division in writing the actual startup date of each new and modified process equipment proposed in Application No. 29216 within 15 days of startup.**
- 6.2.32 The Permittee shall notify the Division of the actual startup date of Boilers UB-1310 and UB-1210-1 (Source Codes UB-1310 and 0A22) within 15 days of startup.  
[40 CFR 60.48c(a)]**

**PART 7.0 OTHER SPECIFIC REQUIREMENTS****7.3 Alternative Requirements**

[White Paper #2]

**NEW CONDITIONS****40 CFR 63 Subpart NNNNN – “National Emission Standard for Hazardous Air Pollutants: Hydrochloric Acid Production.”**

**7.3.1 The Permittee may produce HCl at 30% or greater by weight solution for sale. After exercising this alternative scenario, the Permittee shall comply with all applicable provisions 40 CFR 63 Subpart NNNNN – “National Emission Standard for Hazardous Air Pollutants: Hydrochloric Acid Production” for the operation of the HCL Storage Tanks (Source Codes HF-1811A/B/C). The Permittee shall notify the Division in writing of such an intent within 30 days prior to producing HCl solution for sale.**  
[40 CFR 63.8985(a)(1)]

**7.3.2 The Permittee shall comply with the following for emission streams from HCl process vents, storage tanks, transfer operations, and equipment leaks:**  
[40 CFR 63.9000(a) and Table 1 to 40 CFR 63 Subpart NNNNN]

**a. For HCl process vents:**

- i. The Permittee shall reduce HCl emissions by 99.4 percent or greater or achieve an outlet concentration of 12 ppm by volume or less; and**
- ii. The Permittee shall reduce Cl<sub>2</sub> emissions by 99.8 percent or greater or achieve an outlet concentration of 20 ppm by volume or less.**

**b. For HCl storage tanks, the Permittee shall reduce HCl emissions by 99.9 percent or greater or achieve an outlet concentration of 12 ppm by volume or less.**

**c. For HCl transfer operations, the Permittee shall reduce HCl emissions by 99 percent or greater or achieve an outlet concentration of 120 ppm by volume or less.**

**d. For equipment leaks:**

- i. Prepare and operate at all times according to an equipment LDAR plan that describes in detail the measures that will be put in place to detect leaks and repair them in a timely fashion; and**
- ii. Submit the plan to the Division for comment only with the Notification of Compliance Status; and**



- iii. The Permittee may incorporate by reference in such plan existing manuals that describe the measures in place to control leaking equipment emissions required as part of other federally enforceable requirements, provided that all manuals that are incorporated by reference are submitted to the Division.
- 7.3.3 Within 180 days after exercising the alternative scenario of using the HCl manufacturing equipment in the Sarsaparilla Process to manufacture HCl for sale, the Permittee shall conduct performance testing for the HCl Storage Scrubber (Source Code HT-1811). The Permittee shall use the tests to establish emission factors for use in demonstrating compliance with Condition 7.3.2. Tests must be conducted in accordance with 40 CFR 63.9020. A design evaluation may be used in lieu of conducting a performance test in accordance with the requirements of 40 CFR 63.9020(c). Previous tests may be used in accordance with the requirements of 40 CFR 63.9020(d). A Notification of Compliance Status containing the results of the initial compliance demonstration must be submitted in accordance with the applicable requirements of 40 CFR 63.9030(c), 63.9045(f) and (g), and 63.9050(d). and Condition 7.3.9.  
[40 CFR 63.9010, 40 CFR 63.9020, and 40 CFR 63.9030(c)]
- 7.3.4 The Permittee shall conduct subsequent performance tests for the HCl Storage Scrubber (Source Code HT-1811) once every five (5) years in accordance with the requirements of 40 CFR 63.9015(a).  
[40 CFR 63.9015(a)]
- 7.3.5 The Permittee shall install, calibrate, maintain and operate a system to continuously monitor and record the following the indicated parameters on HCl Storage Scrubber (Source Code HT-1811) to demonstrate ongoing compliance with 40 CFR 63 Subpart NNNNN:  
[40 CFR 63.9020(e)(1)]
- a. Scrubber inlet liquid for the HCl Storage Scrubber (Source Code HT-1811).
  - b. Scrubber effluent pH for the HCl Storage Scrubber (Source Code HT-1811).

**Sarsaparilla Process – 40 CFR 63 Subpart NNNNN Recordkeeping and Reporting Requirements**

- 7.3.6 For each operating parameter required to be monitored by Condition 7.3.5 above, each continuous monitor system (CMS) must meet the following requirements:  
[40 CFR 63.9025(a)]
- a. The Permittee must operate the CMS and collect data at all times the process is operating.
  - b. The Permittee must collect data from at least four equally spaced periods each hour.
  - c. For at least 75 percent of the operating hours in a 24-hour period, the Permittee must have valid data (as defined in the site-specific monitoring plan) for at least 4 equally spaced periods each hour.

- d. For each hour that the Permittee has valid data from at least four equally spaced periods, the hourly average value must be calculated using all valid data or, where data are collected from an automated CMS, calculated using at least one measured value per minute if measured more frequently than once per minute.
- e. The Permittee must calculate the daily average using all of the hourly averages calculated according to subparagraph (d) above for the 24-hour period.
- f. A record for the results for each inspection, calibration, and validation check as specified in the site-specific monitoring plan must be maintained.

**7.3.7 The Permittee shall maintain the following records:  
[40 CFR 63.9035]**

- a. Records of daily average scrubber inlet liquid flow to the HCl Storage Scrubber (Source Code HT-1811).
- b. Records of daily average scrubber inlet liquid flow to the HCl Storage Scrubber (Source Code HT-1811).

**7.3.8 Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee must monitor continuously (or collect data at all required intervals) at all times that the affected source is operating. This includes periods of startup, shutdown, or malfunction when the affected source is operating. A monitoring malfunction includes, but is not limited to, any sudden, infrequent, not reasonably preventable failure of the monitoring equipment to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.**

**The Permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels, nor may such data be used in fulfilling a minimum data availability requirement, if applicable. The Permittee must use all the data collected during all other periods in assessing the operation of the control device and associated control system  
[40 CFR 63.9035(d) and (e)]**

**7.3.9 Within 180 days after initial startup of the HCl manufacturing portion of the Sarsaparilla process, the Permittee shall submit to the Division a Notification of Compliance Status that includes the following:**

- a. Each operating parameter value averaged over the full period of the performance test.  
[40 CFR 63.9045(g)]

- b. Each operating parameter range within which HAP emissions are reduced to the level corresponding to meeting the applicable emissions limits in Condition 7.3.2. [40 CFR 63.9045(g)(1) and (2)]**
- c. A copy of the site-specific monitoring plan, in accordance with 40 CFR 63.9005(d), which shall include the following information: [40 CFR 63.9005(d)(1) through (6)]**
  - i. Installation of the continuous monitoring system (CMS) sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).**
  - ii. Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction system.**
  - iii. Performance evaluation procedures and acceptance criteria (e.g., calibrations).**
  - iv. Ongoing operation and maintenance (O&M) procedures in accordance with the general requirements of §§63.8(c)(1)(ii), (c)(3), (c)(4)(ii), and (c)(7) and (8), and 40 CFR 63.9025.**
  - v. Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d) except for the requirements related to startup, shutdown, and malfunction plans referenced in §63.8(d)(3). The Permittee shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Division. If the performance evaluation plan is revised, the Permittee shall keep previous (*i.e.*, superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Division, for a period of 5 years after each revision to the plan. The program of corrective action should be included in the plan required under §63.8(d)(2).**
  - vi. Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c)(1) through (14) and (e)(1) and (e)(2)(i).**
- c. A certification that the LDAR Plan has been developed and implemented and submitted it to the Director for comment.**

- 7.3.10 The Permittee shall submit 40 CFR 63 Subpart NNNNN semiannual compliance reports covering the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Each compliance report must be postmarked or delivered no later than August 29 or February 28, whichever date is the first date following the end of the semiannual reporting periods. The semiannual compliance report must include the following information: [40 CFR 63.9050]**
- a. Company name and address.**
  - b. Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.**
  - c. Date of report and beginning and ending dates of the reporting period.**
  - d. If there are no deviations from any emission limitations that apply, include a statement that there were no deviations from the emission limitations during the reporting period.**
  - e. If there were no periods during which the CMS was out-of-control in accordance with the monitoring plan, a statement that there were no periods during which the CMS was out-of-control during the reporting period.**
  - f. Verification that the Permittee continues to use the equipment LDAR plan and information that explains any periods when the procedures in the plan were not followed, and the corrective actions were not taken.**
  - g. If there were no revisions made to the site-specific monitoring plan and/or LDAR plan during the reporting period, a statement that there were no revisions made to the site-specific monitoring plan and/or LDAR plan during the reporting period. If revisions were made to the site-specific monitoring plan and/or LDAR plan during the reporting period, include a copy of the revised plan(s).**
  - h. For planned routine maintenance operations that caused or may cause an HCl storage tank control device not to meet the emission limits in accordance with Condition 7.3.2:**
    - i. A description of the planned routine maintenance that was performed for each HCl storage tank control device during the reporting period. This description shall include the type of maintenance performed and the total number of hours during the reporting period that the HCl storage tank control device did not meet the emission limits in accordance with Condition 7.3.2, as applicable, due to planned routine maintenance.**

- ii. A description of the planned routine maintenance that is anticipated to be performed for each HCl storage tank control device during the next reporting period. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.**
  
- i. For each deviation from an emission limitation where a CMS is used to comply with the emission limitation in this subpart, include the following information in paragraphs i through ix below. This includes periods of startup, shutdown, and malfunction.**
  - i. The date and time that each malfunction started and stopped.**
  - ii. The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.**
  - iii. The date, time, and duration that each CMS was out-of-control, including the information in § 63.8(c)(8).**
  - iv. The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.**
  - v. A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.**
  - vi. A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.**
  - vii. A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.**
  - viii. A brief description of the process units.**
  - ix. A description of any changes in CMS, processes, or controls since the last reporting period.**

**7.3.11 The Permittee shall maintain the following records in accordance with 40 CFR 63 Subpart NNNNN requirements:  
[40 CFR 63.9055]**

- a. A copy of each notification and report that the Permittee submitted to comply with 40 CFR 63 Subpart NNNNN, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, as required in §63.10(b)(2)(xiv).
- b. Records of performance tests as required in §63.10(b)(2)(viii).
- c. Records of operating parameter values that are consistent with the monitoring plan.
- d. Records of the date and time that each deviation started and stopped and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.
- e. Copies of the current versions of the site-specific monitoring plan and the equipment LDAR plan. The Permittee also must submit copies of these plans and any revisions or updates to the Division for comment only (not for approval).
- f. Records of the planned routine maintenance performed on each HCl storage tank control device including the duration of each time the control device does not meet the emission limits in table 1 to this subpart, as applicable, due to planned routine maintenance. Such a record shall include the information specified in the following paragraphs.
  - i. The first time of day and date the emission limits in table 1 to Subpart NNNNN, as applicable, were not met at the beginning of the planned routine maintenance, and
  - ii. The first time of day and date the emission limits in table 1 to Subpart NNNNN, as applicable, were met at the conclusion of the planned routine maintenance.
- g. For each deviation, record the date, time, and duration of each deviation.
- h. For each deviation, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions.
- i. Record actions taken to minimize emissions in accordance with §63.9005(b), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

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- j. Any records required to be maintained by this part that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request by the Division or the EPA as part of an on-site compliance evaluation.**

**Attachments**

- B. Insignificant Activities Checklist, Insignificant Activities Based on Emission Levels and Generic Emission Groups



**ATTACHMENT B**

**NOTE:** Attachment B contains information regarding insignificant emission units/activities and groups of generic emission units/activities in existence at the facility at the time of Permit issuance. Future modifications or additions of insignificant emission units/activities and equipment that are part of generic emissions groups may not necessarily cause this attachment to be updated.

**INSIGNIFICANT ACTIVITIES BASED ON EMISSION LEVELS**

| <b>Description of Emission Units / Activities</b>  | <b>Quantity</b> |
|--|-----------------|
| Amodel <del>High Pressure Blowdown Tank</del> <b>Concentrator Knockout Pot</b> KD-310 (OA31) | <b>1</b>        |
| Amodel <del>Salt Divert</del> <b>DIW Flush Tank</b> KD-350 (OA35)                            | <b>1</b>        |
| <b>Amodel AA Sack Station Filter KH-120 (A23)</b>  | <b>1</b>        |
| <b>Amodel AA Sack Unload System KM-120 (A23)</b>   | <b>1</b>        |
| <b>Amodel Mongo Trailer</b>  | <b>1</b>        |
| <b>Amodel Catalyst Addition KF-306</b>   | <b>1</b>        |
| <b>Amodel Antifoam Tank KF-315</b>   | <b>1</b>        |
| <b>Amodel Parts Cleaning Oven CM-642</b>   | <b>1</b>        |
| Amodel <del>HDMA Wastewater Storage</del> <b>Recovery Feed Tank</b> (KF-850)                 | <b>1</b>        |
| Amodel <del>HDMA Feed Tank</del> <b>Recovery Seal Pot Tank</b> (KF-851)                      | <b>1</b>        |
| <b>Amodel HDMA Recovery Tank KF-690</b>  | <b>1</b>        |