**Bureau of Air Quality**

**Title V Operating Permit**

**BASF Chemical Corporation White Stone Site**

**3455 Southport Road**

**Spartanburg, South Carolina 29302**

**Spartanburg County**

In accordance with the provisions of the Pollution Control Act, Sections 48-1-50(5), 48-1-100(A), and 48-1-110(a), the 1976 Code of Laws of South Carolina, as amended, and South Carolina Regulation 61-62, Air Pollution Control Regulations and Standards, the Bureau of Air Quality authorizes the operation of this facility and the equipment specified herein in accordance with valid construction permits, and the plans, specifications, and other information submitted in the Title V permit application received on October 16, 2023, as amended. All official correspondence, plans, permit applications, and written statements are an integral part of the permit. Any false information or misrepresentation in the application for a construction permit may be grounds for permit revocation.

The operation of this facility is subject to and conditioned upon the terms, limitations, standards, and schedules contained herein or as specified by this permit and its accompanying attachments.

 **Permit Number: TV-2060-0068 v1.2**

 **Agency Air Number: 2060-0068**

 **Issue Date: December 6, 2021**

 **Effective Date: January 1, 2022**

 **Expiration Date: December 31, 2026**

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| **Steve McCaslin, P. E., Director****Air Permitting Division****Bureau of Air Quality** |

| **RECORD OF REVISIONS** |
| --- |
| **Date** | **Type** | **Description of Changes** |
| 02-02-2022 | AA | Changed the incorrect NESHAP Periodic Reporting Schedule Summary Reporting Period for 40CFR63 to VVVVVV of “March 21 through October 20 and October 21 through March 20” to the correct “January 1 through June 30 and July 1 through December 31” |
| 09-27-2022 | MM | Incorporated the requirements of Construction Permit 2060-0068-CZ as follows:* Permit template and conditions updated to most current template
* Changed the installation date of R-8 in Table B.4 from “1981” to “2022” as the existing reactor was replaced with a new reactor
* Removed R-8 and Emission Unit 07 from Condition C.7 and added R-8 to Condition C.6
* Added new Condition C.17 for 40CFR60 Subpart VVa requirements
 |
| 05-22-2023 | MM | The changes made are as follows.* Added the modification date of 2023 to Equipment Description Table B.2.
* Added “R-2” to Equipment ID in Condition C.17
* Removed R-11 and R-12 from Condition C.17. Condition C.17 is the 40CFR60 Subpart VVa requirements. R-11 and R-12 are subject not Subject to VVa but subject to 40CFR60 Subpart VV.
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|  | MM | * Updated permit template.
* Added the modification date of 2023 to Equipment Description Table B.2 for R-4.
 |

AA Administrative Amendment

MM Minor Modification

SM Significant Modification

| 1. EMISSION UNIT(S), EQUIPMENT, AND CONTROL DEVICE(S)
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| --- |
| **Emission Unit ID** | **Emission Unit Description** |
| 03 | Boilers |
| 06 | South Polyol Reactor System |
| 07 | North Polyol Reactor System |
| 14 | Sokalan PG 101 Process |
| 15 | Non-NSPS Subpart Kb Storage Tanks |
| 18 | NSPS Subpart Kb Storage Tanks |

| Equipment and control device capacities provided under the Description columns of Equipment and Control Device Tables below are not intended to be permit limits unless otherwise specified within the Table “Limitations, Monitoring, and Reporting.” However, this condition does not exempt the facility from the construction permitting process, from PSD review, nor from any other applicable requirements that must be addressed prior to increasing production rates. |
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| 1. **EQUIPMENT FOR EMISSION UNIT 03 – BOILERS**
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| --- |
| **Equipment ID** | **Equipment Description** | **Installation Date** | **Control Device ID** | **Emission Point ID** |
| B-3 | Boiler No.3Natural Gas and No.2 Fuel Oil (Back-up) as Fuels | 1982 | None | 02 |
| B-5 | Boiler No.5Natural Gas and No.2 Fuel Oil (Back-up) as Fuels | 1989 | None | 12 |
| H-800R | Boiler H-800RNatural Gas and No.2 Fuel Oil (Back-up) as Fuels | 2017 | None | 16 |

| 1. **EQUIPMENT FOR EMISSION UNIT 06 – SOUTH POLYOL REACTOR SYSTEM**
 |
| --- |
| **Equipment ID** | **Equipment Description** | **Installation Date** | **Control Device ID** | **Emission Point ID** |
| R-2 | Reactor No.2 | Pre-1981/2010/2023 | NP-1 | 05 |
| R-3 | Reactor No.3 | Pre-1981/2010 | NP-1 | 05 |
| R-4 | Reactor No.4 | Pre-1981/2010/2023 | NP-1 | 05 |
| R-6 | Reactor No.6 | 1997/2010 | NP-1 | 05 |
| R-7 | Reactor No.7 | 1997/2010 | NP-1 | 05 |

| 1. **CONTROL DEVICE(S) FOR EMISSION UNIT 06 – SOUTH POLYOL REACTOR SYSTEM**
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| --- |
| **Control Device ID** | **Control Device Description** | **Pollutant(s) Controlled** | **Installation Date** | **Emission Point ID** |
| NP-1 | North Polyol Scrubber | PM10 Ethylene Oxide Propylene Oxide Butylene Oxide | 1995/2010 | 05 |

| 1. **EQUIPMENT FOR EMISSION UNIT 07 – NORTH POLYOL REACTOR SYSTEM**
 |
| --- |
| **Equipment ID** | **Equipment Description** | **Installation Date** | **Control Device ID** | **Emission Point ID** |
| R-8 | Reactor No.8 | 2022 | NP-1 | 05 |
| R-11 | Reactor No.11 | 1995 | NP-1 | 05 |
| R-12 | Reactor No.12 | 1998 | NP-1 | 05 |

| 1. **CONTROL DEVICE(S) FOR EMISSION UNIT 07 – NORTH POLYOL REACTOR SYSTEM**
 |
| --- |
| **Control Device ID** | **Control Device Description** | **Pollutant(s) Controlled** | **Installation Date** | **Emission Point ID** |
| NP-1 | North Polyol Scrubber | PM10 Ethylene Oxide Propylene Oxide Butylene Oxide | 1995/2010 | 05 |

| 1. **EQUIPMENT FOR EMISSION UNIT 14 – SOKALAN PG-101 PROCESS**
 |
| --- |
| **Equipment ID** | **Equipment Description** | **Installation Date** | **Control Device ID** | **Emission Point ID** |
| R-10 | Reactor No.10 | 1991/2007 | TO-1 | 13 |
| T-234 | Post Polymerization Vessel T-234 | 2007 | TO-1 | 13 |
| T-501 | Product Storage Tank T-501 | 2007 | TO-1 | 13 |

| 1. **CONTROL DEVICE(S) FOR EMISSION UNIT 14 – SOKALAN PG-101 PROCESS**
 |
| --- |
| **Control Device ID** | **Control Device Description** | **Pollutant(s) Controlled** | **Installation Date** | **Emission Point ID** |
| TO-1 | Thermal Oxidizer (Natural Gas as Fuel) | VOC, HAP, TAP | 2007 | 13 |

| 1. **EQUIPMENT FOR EMISSION UNIT 15 – NON-NSPS SUBPART KB STORAGE TANKS**
 |
| --- |
| **Equipment ID** | **Equipment Description** | **Installation Date** | **Control Device ID** | **Emission Point ID** |
| T-101 | Storage Tank T-101  | Pre 1980 | None | T-101 |
| T-102 | Storage Tank T-102  | Pre 1980 | None | T-102 |
| T-103 | Storage Tank T-103  | Pre 1980 | None | T-103 |
| T-104 | Storage Tank T-104  | Pre 1980 | None | T-104 |
| T-106 | Storage Tank T-106  | 1993 | None | T-106 |
| T-107 | Storage Tank T-107  | Pre 1980 | None | T-107 |
| T-108 | Storage Tank T-108  | Pre 1980 | None | T-108 |
| T-109 | Storage Tank T-109  | Pre 1980 | None | T-109 |
| T-110 | Storage Tank T-110  | Pre 1980 | None | T-110 |
| T-111 | Storage Tank T-111  | Pre 1980 | None | T-111 |
| T-112 | Storage Tank T-112  | Pre 1980 | None | T-112 |
| T-113 | Storage Tank T-113  | Pre 1980 | None | T-113 |
| T-114 | Storage Tank T-114  | Pre 1980 | None | T-114 |
| T-115 | Storage Tank T-115  | Pre 1980 | None | T-115 |
| T-116 | Storage Tank T-116  | Pre 1980 | None | T-116 |
| T-117 | Storage Tank T-117  | Pre 1980 | None | T-117 |
| T-118 | Storage Tank T-118  | Pre 1980 | None | T-118 |
| T-201 | Storage Tank T-201  | 1981 | None | T-201 |
| T-202 | Storage Tank T-202  | 1981 | None | T-202 |
| T-203 | Storage Tank T-203  | 1981 | None | T-203 |
| T-204 | Storage Tank T-204  | 1981 | None | T-204 |
| T-205 | Storage Tank T-205  | 1981 | None | T-205 |
| T-206 | Storage Tank T-206  | 1981 | None | T-206 |
| T-207 | Storage Tank T-207  | 1981 | None | T-207 |
| T-220 | Storage Tank T-220  | 1988 | None | T-220 |
| T-221 | Storage Tank T-221  | 1988 | None | T-221 |
| T-222 | Storage Tank T-222  | 1988 | None | T-222 |
| T-223 | Storage Tank T-223  | 1988 | None | T-223 |
| T-224 | Storage Tank T-224  | 1991 | None | T-224 |
| T-225 | Storage Tank T-225  | 1988 | None | T-225 |
| T-227 | Storage Tank T-227  | 1991 | None | T-227 |
| T-228 | Storage Tank T-228  | 1991 | None | T-228 |
| T-230 | Storage Tank T-230  | 1981 | None | T-230 |
| T-231 | Storage Tank T-231  | 1981 | None | T-231 |
| T-301 | Storage Tank T-301  | 1995 | None | T-301 |
| T-302 | Storage Tank T-302  | 1995 | None | T-302 |
| T-303 | Storage Tank T-303 | 1995 | None | T-303 |
| T-304 | Storage Tank T-304 | 1995 | None | T-304 |
| T-305 | Storage Tank T-305 | 1995 | None | T-305 |
| T-306 | Storage Tank T-306 | 1995 | None | T-306 |
| T-307 | Storage Tank T-307 | 1995 | None | T-307 |
| T-308 | Storage Tank T-308 | 1995 | None | T-308 |
| T-309 | Storage Tank T-309 | 1995 | None | T-309 |
| T-310 | Storage Tank T-310 | 1995 | None | T-310 |
| T-311 | Storage Tank T-311 | 1995 | None | T-311 |
| T-312 | Storage Tank T-312 | 2007 | None | T-312 |
| T-313 | Storage Tank T-313 | 1995 | None | T-313 |
| T-314 | Storage Tank T-314 | 1995 | None | T-314 |
| T-315 | Storage Tank T-315 | 1995 | None | T-315 |
| T-701 | Storage Tank T-701 | 1984 | None | T-701 |
| T-702 | Storage Tank T-702 | 1984 | None | T-702 |
| T-703 | Storage Tank T-703 | 1984 | None | T-703 |
| T-704 | Storage Tank T-704 | 1984 | None | T-704 |
| T-705 | Storage Tank T-705 | 1984 | None | T-705 |
| T-706 | Storage Tank T-706 | 1984 | None | T-706 |
| T-707 | Storage Tank T-707 | 1984 | None | T-707 |
| T-708 | Storage Tank T-708 | 1984 | None | T-708 |
| T-709 | Storage Tank T-709 | 1984 | None | T-709 |
| T-710 | Storage Tank T-710 | 1984 | None | T-710 |
| T-711 | Storage Tank T-711 | 1984 | None | T-711 |
| T-712 | Storage Tank T-712 | 1997 | None | T-712 |
| T-713 | Storage Tank T-713 | 1984 | None | T-713 |
| T-714 | Storage Tank T-714 | 1993 | None | T-714 |
| T-715 | Storage Tank T-715 | 1993 | None | T-715 |
| T-716 | Storage Tank T-716 | 1993 | None | T-716 |
| T-717 | Storage Tank T-717 | Pre-1980 | None | T-717 |
| T-410 | Storage Tank T-410 | 1989 | None | T-410 |
| T-460B | Storage Tank T-460B | 2000 | None | T-460B |

| 1. **EQUIPMENT FOR EMISSION UNIT 18 – NSPS SUBPART KB STORAGE TANKS**
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| --- |
| **Equipment ID** | **Equipment Description** | **Installation Date/****Modification Date** | **Control Device ID** | **Emission Point ID** |
| T-415 | Storage Tank T-415 | 1989 | TO-1 | 13 |

| 1. **CONTROL DEVICE(S) FOR EMISSION UNIT 18 – NSPS SUBPART KB STORAGE TANKS**
 |
| --- |
| **Control Device ID** | **Control Device Description** | **Pollutant(s) Controlled** | **Installation Date** | **Emission Point ID** |
| TO-1 | Thermal Oxidizer (Natural Gas as Fuel) | VOC, HAP, TAP | 2007 | 13 |

| 1. LIMITATIONS, MONITORING, AND REPORTING
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| --- |
| **Condition Number** | **Conditions** |
|  | **Emission Unit ID:** 06, 07, 14, 18**Equipment ID:** R-2, R-3, R-4, R-6, R-7, R-8, R-11, R-12, R-10, T-234, T-501, T-415**Control Device ID:** NP-1, TO-1The owner or operator shall inspect, calibrate, adjust, and maintain continuous monitoring systems, monitoring devices, and gauges in accordance with manufacturer’s specifications or good engineering practices. The owner or operator shall maintain on file all measurements including continuous monitoring system or monitoring device performance measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required in a permanent form suitable for inspection by Department personnel.(S.C. Regulation 61-62.1, Section II(J)(1)(d)) Sources required to have continuous emission monitors shall submit reports as specified in applicable parts of the permit, law, regulations, or standards. |
|  | **Emission Unit ID:** 06, 07, 14, 18**Equipment ID:** R-2, R-3, R-4, R-6, R-7, R-8, R-11, R-12, R-10, T-234, T-501, T-415**Control Device ID:** NP-1, TO-1All gauges shall be readily accessible and easily read by operating personnel and Department personnel (i.e. on ground level or easily accessible roof level). Monitoring parameter readings (e.g., pressure drop readings, flow rates, etc.) and inspection checks shall be maintained in logs (written or electronic), along with any corrective action taken when deviations occur. Each occurrence of operation outside the operational ranges, including date and time, cause, and corrective action taken, shall be recorded and kept on site. Exceedance of operational range shall not be considered a violation of an emission limit of this permit, unless the exceedance is also accompanied by other information demonstrating that a violation of an emission limit has taken place.Reports of these occurrences shall be submitted semiannually. If there were no occurrences during the reporting period, then documentation shall be submitted to indicate such. Any alternative method for monitoring control device performance must be preapproved by the Department and shall be incorporated into the permit as set forth in S.C. Regulation 61-62.70.7. |
|  | **Emission Unit ID:** 03**Equipment ID:** B-3, B-5(S.C. Regulation 61-62.5, Standard No. 5.2) Any existing source where a burner assembly is replaced with another burner assembly after June 25, 2004, regardless of size or age of the burner assembly to be replaced shall be replaced with a low NOX burner assembly or equivalent technology, and shall achieve a 30 percent reduction from uncontrolled NOX emission levels based upon manufacturer’s specifications. An exemption from this requirement shall be granted when a single burner assembly is being replaced in an existing source with multiple burners due to non-routine maintenance. The replacement of individual components such as burner heads, nozzles, or windboxes does not trigger this requirement.The owner or operator shall notify and register the burner assembly replacement with the Department, in writing, within 7 days of replacing the existing burner assembly. Notification will be provided on the Department’s *Low NOx Burner Assembly Replacement Notification* Form. Those affected sources that wish to receive an emission reduction credit for the control device will be required to submit a construction permit application. Those affected sources requesting an alternative control methodology must receive written approval prior to burner replacement.If the burner assembly is replaced as detailed above, the owner or operator shall perform tune-ups every twenty-four (24) months in accordance with manufacturer’s specifications or with good engineering practices. The first tune-up shall be conducted no more than twenty-four (24) months from replacement of a burner assembly for affected existing sources. Each subsequent tune-up shall be conducted no more than twenty-four (24) months after the previous tune-up.All tune-up records are required to be maintained on site and available for inspection by the Department for a period of five (5) years from the date generated.The owner or operator shall develop and retain a tune-up plan on file. |
|  | **Emission Unit ID:** 06, 07, 14, 15, 18**Equipment ID:** R-2, R-3, R-4, R-6, R-7, R-8, R-10, R-11, R-12, T-234, T-501, T-106, T-220, T-221, T-222, T-223, T-224, T-225, T-227, T-228, T-301, T-302, T-303, T-304, T-305, T-306, T-307, T-308, T-309, T-310, T-311, T-312, T-313, T-314, T-315, T-712, T-714, T-715, T-716, T-410, T-460B, T-415(S.C. Regulation 61‑62.5, Standard No. 4, Section IX) Where construction or modification began after December 31, 1985, emissions from these sources (including fugitive emissions) shall not exhibit an opacity greater than 20% each. |
|  | **Emission Unit ID:** 15**Equipment ID:** T-101, T-102, T-103, T-104, T-107, T-108, T-109, T-110, T-111, T-112, T-113, T-114, T-115, T-116, T-117, T-118, T-201, T-202, T-203, T-204, T-205, T-206, T-207, T-230, T-231, T-701, T-702, T-703, T-704, T-705, T-706, T-707, T-708, T-709, T-710, T-711, T-713, T-717(S.C. Regulation 61‑62.5, Standard No. 4, Section IX) Where construction or modification began on or before December 31, 1985, emissions from these sources (including fugitive emissions) shall not exhibit an opacity greater than 40% each. |
|  | **Emission Unit ID:** 06, 07, 14, 15, 18**Equipment ID:** R-2, R-3, R-4, R-6, R-7, R-10, R-11, R-12, T-234, T-501, T-106, T-220, T-221, T-222, T-223, T-224, T-225, T-227, T-228, T-301, T-302, T-303, T-304, T-305, T-306, T-307, T-308, T-309, T-310, T-311, T-312, T-313, T-314, T-315, T-712, T-714, T-715, T-716, T-410, T-460B, T-415The owner or operator shall perform a visual inspection on a semiannual basis of sources subject to opacity limits. The inspection shall occur during normal source operation. No periodic monitoring for opacity will be required for sources during periods that only natural gas or propane are being combusted. Logs shall be kept to record all visual inspections, noting color, duration, density (heavy or light), cause, and corrective action taken for any abnormal emissions. If a source did not operate during the required visual inspection time frame, the log shall indicate such. The owner or operator shall submit semiannual reports. The report shall include records of abnormal emissions, if any, and corrective actions taken. If only natural gas or propane was combusted or if the unit did not operate during the semiannual period, the report shall state so.Visual inspection means a qualitative observation of opacity during daylight hours. The observer does not need to be certified to conduct valid visual inspections. However, at a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, and observer position relative to lighting, wind, and the presence of uncombined water. |
|  | **Emission Unit ID:** 03**Equipment ID:** B-3, B-5, H-800R(S.C. Regulation 61-62.5, Standard No. 1, Section I) The fuel burning source(s) shall not discharge into the ambient air smoke which exceeds opacity of 20%. The opacity limit may be exceeded for sootblowing, but may not be exceeded for more than 6 minutes in a one hour period nor be exceeded for more than a total of 24 minutes in a 24 hour period. Emissions caused by sootblowing shall not exceed an opacity of 60%.Owners and operators shall, to the extent practicable, maintain and operate any source including associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions. In addition, the owner or operator shall maintain a log of the time, magnitude, duration, and any other pertinent information to determine periods of startup and shutdown and make available to the Department upon request. |
|  | **Emission Unit ID:** 03**Equipment ID:** B-3, B-5, H-800R(S.C. Regulation 61-62.5, Standard No.1, Section II) The allowable discharge of particulate matter resulting from fuel combustion is 0.6 pounds per million Btu input. |
|  | **Emission Unit ID:** 03**Equipment ID:** B-3, B-5, H-800R(S.C. Regulation 61-62.5, Standard No.1, Section III) The maximum allowable discharge of sulfur dioxide (SO2) resulting from fuel combustion is 2.3 pounds per million Btu input. |
|  | **Emission Unit ID:** 03**Equipment ID:** B-3, B-5, H-800RThese sources are permitted to burn only Natural Gas and No.2 Fuel Oil as fuel. The use of any other substances as fuel is prohibited without prior written approval from the Department. |
|  | **Emission Unit ID:** 03**Equipment ID:** H-800RThis source is subject to New Source Performance Standard (NSPS), 40CFR60 Subpart A (General Provisions) and Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) and S.C. Regulation 61-62.60, Subparts A (General Provisions) and Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units), as applicable. The owner/operator shall comply with all applicable requirements of Subparts A and Dc. |
|  | **Emission Unit ID:** 03**Equipment ID:** H-800R40CFR60.40c Applicability and delegation of authority.(a) Except as provided in [paragraphs (d)](https://www.ecfr.gov/current/title-40/section-60.40c#p-60.40c(d)), [(e)](https://www.ecfr.gov/current/title-40/section-60.40c#p-60.40c(e)), [(f)](https://www.ecfr.gov/current/title-40/section-60.40c#p-60.40c(f)), and [(g)](https://www.ecfr.gov/current/title-40/section-60.40c#p-60.40c(g)) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h). |
|  | **Emission Unit ID:** 03**Equipment ID:** H-800R40CFR60.42c Standard for sulfur dioxide (SO2).(d) On and after the date on which the initial performance test is completed or required to be completed under [§60.8](https://www.ecfr.gov/current/title-40/section-60.8), whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO2 in excess of 215 ng/J (0.50 lb/MMBtu) heat input from oil; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph. |
|  | **Emission Unit ID:** 03**Equipment ID:** H-800R40CFR60.43c Standard for particulate matter (PM).(c) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. Owners and operators of an affected facility that elect to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions according to the requirements of this subpart and are subject to a federally enforceable PM limit of 0.030 lb/MMBtu or less are exempt from the opacity standard specified in this [paragraph (c)](https://www.ecfr.gov/current/title-40/section-60.43c#p-60.43c(c)). (d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction. |
|  | **Emission Unit ID:** 03**Equipment ID:** H-800R(40CFR60.8, 40CFR60.45c(a) and 40CFR60.47c(a)) Within 180 calendar days after its initial startup on No.2 Fuel Oil, the owner/operator shall conduct an initial performance test as required under 40CFR60.8 to determine compliance with the opacity standards specified in 40CFR60.43c(c) using the reference method as specified in 40CFR60.45c(a)(8). Subsequent opacity tests shall be conducted as specified by 40CFR60.47c(a)(1) through 40CFR60.47c(a)(3). |
|  | **Emission Unit ID:** 03**Equipment ID:** H-800R40CFR60.45c Compliance and performance test methods and procedures for particulate matter.(a) The owner or operator of an affected facility subject to the PM and/or opacity standards under [§ 60.43c](https://www.ecfr.gov/current/title-40/section-60.43c) shall conduct an initial performance test as required under §60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods, except as specified in [paragraph (c)](https://www.ecfr.gov/current/title-40/section-60.45c#p-60.45c(c)) of this section.(a)(8) Method 9 of appendix A–4 of this part shall be used for determining the opacity of stack emissions. |
|  | **Emission Unit ID:** 03**Equipment ID:** H-800R40CFR60.47c Emission monitoring for particulate matter.(a) Except as provided in [paragraphs (c)](https://www.ecfr.gov/current/title-40/section-60.47c#p-60.47c(c)), [(d)](https://www.ecfr.gov/current/title-40/section-60.47c#p-60.47c(d)), [(e)](https://www.ecfr.gov/current/title-40/section-60.47c#p-60.47c(e)), and [(f)](https://www.ecfr.gov/current/title-40/section-60.47c#p-60.47c(f)) of this section, the owner or operator of an affected facility combusting coal, oil, or wood that is subject to the opacity standards under [§ 60.43c](https://www.ecfr.gov/current/title-40/section-60.43c) shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility subject to an opacity standard in [§ 60.43c(c)](https://www.ecfr.gov/current/title-40/section-60.43c#p-60.43c(c)) that is not required to use a COMS due to [paragraphs (c)](https://www.ecfr.gov/current/title-40/section-60.47c#p-60.47c(c)), [(d)](https://www.ecfr.gov/current/title-40/section-60.47c#p-60.47c(d)), [(e)](https://www.ecfr.gov/current/title-40/section-60.47c#p-60.47c(e)), or [(f)](https://www.ecfr.gov/current/title-40/section-60.47c#p-60.47c(f)) of this section that elects not to use a COMS shall conduct a performance test using Method 9 of appendix A–4 of this part and the procedures in [§ 60.11](https://www.ecfr.gov/current/title-40/section-60.11) to demonstrate compliance with the applicable limit in [§ 60.43c](https://www.ecfr.gov/current/title-40/section-60.43c) by April 29, 2011, within 45 days of stopping use of an existing COMS, or within 180 days after initial startup of the facility, whichever is later, and shall comply with either [paragraphs (a)(1)](https://www.ecfr.gov/current/title-40/section-60.47c#p-60.47c(a)(1)), [(a)(2)](https://www.ecfr.gov/current/title-40/section-60.47c#p-60.47c(a)(2)), or [(a)(3)](https://www.ecfr.gov/current/title-40/section-60.47c#p-60.47c(a)(3)) of this section. The observation period for Method 9 of appendix A–4 of this part performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation.(a)(1) Except as provided in [paragraph (a)(2)](https://www.ecfr.gov/current/title-40/section-60.47c#p-60.47c(a)(2)) and [(a)(3)](https://www.ecfr.gov/current/title-40/section-60.47c#p-60.47c(a)(3)) of this section, the owner or operator shall conduct subsequent Method 9 of appendix A–4 of this part performance tests using the procedures in [paragraph (a)](https://www.ecfr.gov/current/title-40/section-60.47c#p-60.47c(a)) of this section according to the applicable schedule in [paragraphs (a)(1)(i)](https://www.ecfr.gov/current/title-40/section-60.47c#p-60.47c(a)(1)(i)) through [(a)(1)(iv)](https://www.ecfr.gov/current/title-40/section-60.47c#p-60.47c(a)(1)(iv)) of this section, as determined by the most recent Method 9 of appendix A–4 of this part performance test results. (a)(1)(i) If no visible emissions are observed, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; (a)(1)(ii) If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; (a)(1)(iii) If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 3 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; or (a)(1)(iv) If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 of appendix A–4 of this part performance test must be completed within 45 calendar days from the date that the most recent performance test was conducted. (a)(2) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A–4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A–4 of this part performance tests, elect to perform subsequent monitoring using Method 22 of appendix A–7 of this part according to the procedures specified in [paragraphs (a)(2)(i)](https://www.ecfr.gov/current/title-40/section-60.47c#p-60.47c(a)(2)(i)) and [(ii)](https://www.ecfr.gov/current/title-40/section-60.47c#p-60.47c(a)(2)(ii)) of this section. (a)(2)(i) The owner or operator shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using Method 22 of appendix A–7 of this part and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (*i.e.* , 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period (*i.e.,* 90 seconds per 30 minute period), the owner or operator shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observation (*i.e.,* 90 seconds) or conduct a new Method 9 of appendix A–4 of this part performance test using the procedures in [paragraph (a)](https://www.ecfr.gov/current/title-40/section-60.47c#p-60.47c(a)) of this section within 45 calendar days according to the requirements in [§ 60.45c(a)(8)](https://www.ecfr.gov/current/title-40/section-60.45c#p-60.45c(a)(8)). (a)(2)(ii) If no visible emissions are observed for 10 operating days during which an opacity standard is applicable, observations can be reduced to once every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed. (a)(3) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A–4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A–4 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Administrator. The observations shall be similar, but not necessarily identical, to the requirements in [paragraph (a)(2)](https://www.ecfr.gov/current/title-40/section-60.47c#p-60.47c(a)(2)) of this section. For reference purposes in preparing the monitoring plan, see OAQPS “Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems.” This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Policy Group (D243–02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods.(c) Owners and operators of an affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur and/or liquid or gaseous fuels with potential sulfur dioxide emission rates of 26 ng/J (0.060 lb/MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO2 or PM emissions and that are subject to an opacity standard in [§ 60.43c(c)](https://www.ecfr.gov/current/title-40/section-60.43c#p-60.43c(c)) are not required to operate a COMS if they follow the applicable procedures in [§ 60.48c(f)](https://www.ecfr.gov/current/title-40/section-60.48c#p-60.48c(f)). |
|  | **Emission Unit ID:** 03**Equipment ID:** H-800R40CFR60.48c Reporting and recordkeeping requirements.(b) The owner or operator of each affected facility subject to the SO2 emission limits of §60.42c, or the PM or opacity limits of §60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS and/or COMS using the applicable performance specifications in [appendix B of this part](https://www.ecfr.gov/current/title-40/part-60/appendix-Appendix%20B%20to%20Part%2060).(c)In addition to the applicable requirements in §60.7, the owner or operator of an affected facility subject to the opacity limits in §60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility that occur during the reporting period and maintain records according to the requirements specified in paragraphs (c)(1) through (c)(3) of this section, as applicable to the visible emissions monitoring method used. (c)(1) For each performance test conducted using Method 9 of appendix A–4 of this part, the owner or operator shall keep the records including the information specified in [paragraphs (c)(1)(i)](https://www.ecfr.gov/current/title-40/section-60.48c#p-60.48c(c)(1)(i)) through [(iii)](https://www.ecfr.gov/current/title-40/section-60.48c#p-60.48c(c)(1)(iii)) of this section. (c)(1)(i) Dates and time intervals of all opacity observation periods; (c)(1)(ii) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and (c)(1)(iii) Copies of all visible emission observer opacity field data sheets; (d) The owner or operator of each affected facility subject to the SO2 emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall submit reports to the Administrator.(e) The owner or operator of each affected facility subject to the SO2 emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall keep records and submit reports as required under [paragraph (d)](https://www.ecfr.gov/current/title-40/section-60.48c#p-60.48c(d)) of this section, including the following information, as applicable. (e)(1) Calendar dates covered in the reporting period. (e)(2) Each 30-day average SO2 emission rate (ng/J or lb/MMBtu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken. (e)(3) Each 30-day average percent of potential SO2 emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken. (e)(4) Identification of any steam generating unit operating days for which SO2 or diluent (O2 or CO2) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and a description of corrective actions taken. (e)(5) Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit. (e)(6) Identification of the F factor used in calculations, method of determination, and type of fuel combusted. (e)(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under [paragraph (f)(1)](https://www.ecfr.gov/current/title-40/section-60.48c#p-60.48c(f)(1)), [(2)](https://www.ecfr.gov/current/title-40/section-60.48c#p-60.48c(f)(2)), [(3)](https://www.ecfr.gov/current/title-40/section-60.48c#p-60.48c(f)(3)), or [(4)](https://www.ecfr.gov/current/title-40/section-60.48c#p-60.48c(f)(4)) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. (f) Fuel supplier certification shall include the following information: (f)(1) For distillate oil: (f)(1)(i) The name of the oil supplier; (f)(1)(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c and (f)(1)(iii) The sulfur content or maximum sulfur content of the oil. (g)(1) Except as provided under [paragraphs (g)(2)](https://www.ecfr.gov/current/title-40/section-60.48c#p-60.48c(g)(2)) and [(g)(3)](https://www.ecfr.gov/current/title-40/section-60.48c#p-60.48c(g)(3)) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day. (g)(2) As an alternative to meeting the requirements of [paragraph (g)(1)](https://www.ecfr.gov/current/title-40/section-60.48c#p-60.48c(g)(1)) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO2 standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month. (g)(3) As an alternative to meeting the requirements of [paragraph (g)(1)](https://www.ecfr.gov/current/title-40/section-60.48c#p-60.48c(g)(1)) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in §60.42c to use fuel certification to demonstrate compliance with the SO2 standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month. (i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. |
|  | **Emission Unit ID:** 03**Equipment ID:** H-800R(S.C. Regulation 61-62.5, Standard No.5.2, Section III) The allowable discharge of NOX resulting from this source is limited to the following:(1) When burning Natural Gas, Low-NOX Burners or equivalent technology are required and the boiler is limited to 0.036 lb NOx/MMBtu(2) When burning No.2 Fuel Oil, Low-NOX Burners or equivalent technology are required and the boiler is limited to 0.15 lb NOx/MMBtu(S.C. Regulation 61-62.5, Standard No.5.2, Section IV) The owner/operator shall perform tune-ups every twenty-four (24) months in accordance with manufacturer’s specifications or with good engineering practices. The first tune-up shall be conducted no more than twenty-four (24) months from replacement of a burner assembly for affected existing sources. Each subsequent tune-up shall be conducted no more than twenty-four (24) months after the previous tune-up.All tune-up records are required to be maintained on site and available for inspection by the Department for a period of five (5) years from the date generated.The owner/operator shall develop and retain a tune-up plan on file.(S.C. Regulation 61-62.5, Standard No. 5.2, Section IV) The owner or operator shall record monthly the amounts and types of each fuel combusted by the affected sources and maintain these records on site.The owner/operator shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected source; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-6, R-7, R-11, R-12 **Control Device ID:** NP-1These sources are subject to New Source Performance Standards (NSPS), 40CFR60 Subpart A (General Provisions) and Subpart VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006) and S.C. Regulation 61-62.60 Subparts A and Subpart VV, as applicable. These sources shall comply with all applicable requirements of Subparts A and VV. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-6, R-7, R-11, R-12 **Control Device ID:** NP-140CFR60.480 Applicability and designation of affected facility.(a)(1) The provisions of this subpart apply to affected facilities in the synthetic organic chemicals manufacturing industry. (a)(2) The group of all equipment (defined in §60.481) within a process unit is an affected facility. (b) Any affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after January 5, 1981, and on or before November 7, 2006, shall be subject to the requirements of this subpart. (c) Addition or replacement of equipment for the purpose of process improvement which is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart. (f) Stay of standards. Owners or operators are not required to comply with the definition of “process unit” in §60.481 and the requirements in §60.482–1(g) of this subpart until the EPA takes final action to require compliance and publishes a document in the Federal Register. While the definition of “process unit” is stayed, owners or operators should use the following definition: Process unit means components assembled to produce, as intermediate or final products, one or more of the chemicals listed in § 60.489 of this part. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-6, R-7, R-11, R-12 **Control Device ID:** NP-140CFR60.482-1 Standards: General.(a) Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of §§60.482–1 through 60.482–10 or §60.480(e) for all equipment within 180 days of initial startup. (b) Compliance with §§60.482–1 to 60.482–10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in § 60.485.(d) Equipment that is in vacuum service is excluded from the requirements of §§ 60.482–2 to 60.482–10 if it is identified as required in § 60.486(e)(5). (e) Equipment that an owner or operator designates as being in VOC service less than 300 hours (hr)/yr is excluded from the requirements of §§ 60.482–2 through 60.482–10 if it is identified as required in § 60.486(e)(6) and it meets any of the conditions specified in paragraphs (e)(1) through (3) of this section. (e)(1) The equipment is in VOC service only during startup and shutdown, excluding startup and shutdown between batches of the same campaign for a batch process. (e)(2) The equipment is in VOC service only during process malfunctions or other emergencies. (e)(3) The equipment is backup equipment that is in VOC service only when the primary equipment is out of service.(f)(1) If a dedicated batch process unit operates less than 365 days during a year, an owner or operator may monitor to detect leaks from pumps and valves at the frequency specified in the following table instead of monitoring as specified in §§ 60.482–2, 60.482–7, and 60.483–2:

|  |  |
| --- | --- |
| **Operating time (percent of hours during year)** | **Equivalent monitoring frequency time in use** |
| **Monthly** | **Quarterly** | **Semiannually** |
| 0 to <50 | Quarterly | Annually | Annually |
| 25 to <50 | Quarterly | Semiannually | Annually |
| 50 to <75 | Bimonthly | Three Quarters | Semiannually |
| 75 to 100 | Monthly | Quarterly | Semiannually |

(f)(2) Pumps and valves that are shared among two or more batch process units that are subject to this subpart may be monitored at the frequencies specified in paragraph (f)(1) of this section, provided the operating time of all such process units is considered. (f)(3) The monitoring frequencies specified in paragraph (f)(1) of this section are not requirements for monitoring at specific intervals and can be adjusted to accommodate process operations. An owner or operator may monitor at any time during the specified monitoring period (e.g., month, quarter, year), provided the monitoring is conducted at a reasonable interval after completion of the last monitoring campaign. Reasonable intervals are defined in paragraphs (f)(3)(i) through (iv) of this section. (f)(3)(i) When monitoring is conducted quarterly, monitoring events must be separated by at least 30 calendar days. (f)(3)(ii) When monitoring is conducted semiannually (i.e., once every 2 quarters), monitoring events must be separated by at least 60 calendar days. (f)(3)(iii) When monitoring is conducted in 3 quarters per year, monitoring events must be separated by at least 90 calendar days. (f)(3)(iv) When monitoring is conducted annually, monitoring events must be separated by at least 120 calendar days. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-6, R-7, R-11, R-12 **Control Device ID:** NP-140CFR60.482-2 Standards: Pumps in light liquid service.(a)(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in §60.485(b), except as provided in §60.482–1(c) and (f) and paragraphs (d), (e), and (f) of this section. A pump that begins operation in light liquid service after the initial startup date for the process unit must be monitored for the first time within 30 days after the end of its startup period, except for a pump that replaces a leaking pump and except as provided in §60.482–1(c) and (f) and paragraphs (d), (e), and (f) of this section. (a)(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal, except as provided in §60.482–1(f).(b)(1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. (b)(2) If there are indications of liquids dripping from the pump seal, the owner or operator shall follow the procedure specified in either paragraph (b)(2)(i) or (ii) of this section. This requirement does not apply to a pump that was monitored after a previous weekly inspection if the instrument reading for that monitoring event was less than 10,000 ppm and the pump was not repaired since that monitoring event. (b)(2)(i) Monitor the pump within 5 days as specified in § 60.485(b). If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. The leak shall be repaired using the procedures in paragraph (c) of this section. (b)(2)(ii) Designate the visual indications of liquids dripping as a leak, and repair the leak within 15 days of detection by eliminating the visual indications of liquids dripping.(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482–9. (c)(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the practices described in paragraphs (c)(2)(i) and (ii) of this section, where practicable. (c)(2)(i) Tightening the packing gland nuts; (c)(2)(ii) Ensuring that the seal flush is operating at design pressure and temperature.(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (a) of this section, provided the requirements specified in paragraphs (d)(1) through (6) of this section are met. (d)(1) Each dual mechanical seal system is— (d)(1)(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or (d)(1)(ii) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of § 60.482–10; or (d)(1)(iii) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere. (d)(2) The barrier fluid system is in heavy liquid service or is not in VOC service. (d)(3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.(d)(4)(i) Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals. (d)(4)(ii) If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either paragraph (d)(4)(ii)(A) or (B) of this section. (d)(4)(ii)(A) Monitor the pump within 5 days as specified in § 60.485(b) to determine if there is a leak of VOC in the barrier fluid. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. (d)(4)(ii)(B) Designate the visual indications of liquids dripping as a leak. (d)(5)(i) Each sensor as described in paragraph (d)(3) of this section is checked daily or is equipped with an audible alarm. (d)(5)(ii) The owner or operator determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. (d)(5)(iii) If the sensor indicates failure of the seal system, the barrier fluid system, or both, based on the criterion established in paragraph (d)(5)(ii) of this section, a leak is detected. (d)(6)(i) When a leak is detected pursuant to paragraph (d)(4)(ii)(A) of this section, it shall be repaired as specified in paragraph (c) of this section. (d)(6)(ii) A leak detected pursuant to paragraph (d)(5)(iii) of this section shall be repaired within 15 days of detection by eliminating the conditions that activated the sensor. (d)(6)(iii) A designated leak pursuant to paragraph (d)(4)(ii)(B) of this section shall be repaired within 15 days of detection by eliminating visual indications of liquids dripping.(e) Any pump that is designated, as described in § 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a), (c), and (d) of this section if the pump: (e)(1) Has no externally actuated shaft penetrating the pump housing, (e)(2) Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in § 60.485(c), and (e)(3) Is tested for compliance with paragraph (e)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.(g) Any pump that is designated, as described in § 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of paragraphs (a) and (d)(4) through (6) of this section if: (g)(1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section; and (g)(2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in paragraph (c) of this section if a leak is detected. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-6, R-7, R-11, R-12 **Control Device ID:** NP-140CFR60.482-4 Standards: Pressure relief devices in gas/vapor service.(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in § 60.485(c). (b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in § 60.482–9. (b)(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in § 60.485(c). (c) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in § 60.482–10 is exempted from the requirements of paragraphs (a) and (b) of this section. (d)(1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) of this section, provided the owner or operator complies with the requirements in paragraph (d)(2) of this section. (d)(2) After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in §60.482–9. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-6, R-7, R-11, R-12 **Control Device ID:** NP-140CFR60.482-5 Standards: Sampling connection systems.(c) In situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-6, R-7, R-11, R-12 **Control Device ID:** NP-140CFR60.482-6 Standards: Open-ended valves or lines.(a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in § 60.482–1(c) and paragraphs (d) and (e) of this section. (a)(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. (b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. (c) When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) at all other times. (d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (a), (b) and (c) of this section. (e) Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (a) through (c) of this section are exempt from the requirements of paragraphs (a) through (c) of this section. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-6, R-7, R-11, R-12 **Control Device ID:** NP-160.482-7 Standards: Valves in gas/vapor service and in light liquid service.(a)(1) Each valve shall be monitored monthly to detect leaks by the methods specified in § 60.485(b) and shall comply with paragraphs (b) through (e) of this section, except as provided in paragraphs (f), (g), and (h) of this section, § 60.482–1(c) and (f), and §§ 60.483–1 and 60.483–2. (a)(2) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored according to paragraphs (a)(2)(i) or (ii), except for a valve that replaces a leaking valve and except as provided in paragraphs (f), (g), and (h) of this section, § 60.482–1(c), and §§ 60.483–1 and 60.483–2. (a)(2)(i) Monitor the valve as in paragraph (a)(1) of this section. The valve must be monitored for the first time within 30 days after the end of its startup period to ensure proper installation. (a)(2)(ii) If the valves on the process unit are monitored in accordance with § 60.483–1 or § 60.483–2, count the new valve as leaking when calculating the percentage of valves leaking as described in § 60.483–2(b)(5). If less than 2.0 percent of the valves are leaking for that process unit, the valve must be monitored for the first time during the next scheduled monitoring event for existing valves in the process unit or within 90 days, whichever comes first. (b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. (c)(1)(i) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. (c)(1)(ii) As an alternative to monitoring all of the valves in the first month of a quarter, an owner or operator may elect to subdivide the process unit into 2 or 3 subgroups of valves and monitor each subgroup in a different month during the quarter, provided each subgroup is monitored every 3 months. The owner or operator must keep records of the valves assigned to each subgroup. (c)(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. (d)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in §60.482–9. (d)(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. (e) First attempts at repair include, but are not limited to, the following best practices where practicable: (e)(1) Tightening of bonnet bolts; (e)(2) Replacement of bonnet bolts; (e)(3) Tightening of packing gland nuts; (e)(4) Injection of lubricant into lubricated packing. (f) Any valve that is designated, as described in §60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraph (a) if the valve: (f)(1) Has no external actuating mechanism in contact with the process fluid, (f)(2) Is operated with emissions less than 500 ppm above background as determined by the method specified in §60.485(c), and (f)(3) Is tested for compliance with paragraph (f)(2) of this section initially upon designation, annually, and at other times requested by the Administrator. (g) Any valve that is designated, as described in § 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraph (a) if: (g)(1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a), and (g)(2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. (h) Any valve that is designated, as described in § 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (a) if: (h)(1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface. (h)(2) The process unit within which the valve is located either becomes an affected facility through § 60.14 or §60.15 or the owner or operator designates less than 3.0 percent of the total number of valves as difficult-to-monitor, and (h)(3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-6, R-7, R-11, R-12 **Control Device ID:** NP-140CFR60.482-8 Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors.(a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the owner or operator shall follow either one of the following procedures: (a)(1) The owner or operator shall monitor the equipment within 5 days by the method specified in § 60.485(b) and shall comply with the requirements of paragraphs (b) through (d) of this section. (a)(2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection. (b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. (c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482–9. (c)(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. (d) First attempts at repair include, but are not limited to, the best practices described under §§ 60.482–2(c)(2) and 60.482–7(e). |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-6, R-7, R-11, R-12 **Control Device ID:** NP-140CFR60.482-9 Standards: Delay of repair.(a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit. (b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service. (c) Delay of repair for valves will be allowed if: (c)(1) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and (c)(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with § 60.482–10. (d) Delay of repair for pumps will be allowed if: (d)(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and (d)(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected. (e) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown. (f) When delay of repair is allowed for a leaking pump or valve that remains in service, the pump or valve may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-6, R-7, R-11, R-12 **Control Device ID:** NP-140CFR60.485 Test methods and procedures.(a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b). (b) The owner or operator shall determine compliance with the standards in §§ 60.482–1 through 60.482–10, 60.483, and 60.484 as follows: (b)(1) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: (b)(1)(i) Zero air (less than 10 ppm of hydrocarbon in air); and (b)(1)(ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. (c) The owner or operator shall determine compliance with the no detectable emission standards in §§ 60.482–2(e), 60.482–3(i), 60.482–4, 60.482–7(f), and 60.482–10(e) as follows: (c)(1) The requirements of paragraph (b) shall apply. (c)(2) Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. (d) The owner or operator shall test each piece of equipment unless he demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: (d)(1) Procedures that conform to the general methods in ASTM E260–73, 91, or 96, E168–67, 77, or 92, E169–63, 77, or 93 (incorporated by reference—see §60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment. (d)(2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid. (d)(3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, paragraphs (d) (1) and (2) of this section shall be used to resolve the disagreement. (e) The owner or operator shall demonstrate that a piece of equipment is in light liquid service by showing that all the following conditions apply: (e)(1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 °C (1.2 in. H2O at 68 °F). Standard reference texts or ASTM D2879–83, 96, or 97 (incorporated by reference—see § 60.17) shall be used to determine the vapor pressures. (e)(2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 °C (1.2 in. H2O at 68 °F) is equal to or greater than 20 percent by weight. (e)(3) The fluid is a liquid at operating conditions. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-6, R-7, R-11, R-12 **Control Device ID:** NP-140CFR60.486 Recordkeeping requirements.(a)(1) Each owner or operator subject to the provisions of this subpart shall comply with the recordkeeping requirements of this section. (a)(2) An owner or operator of more than one affected facility subject to the provisions of this subpart may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. (b) When each leak is detected as specified in §§ 60.482–2, 60.482–3, 60.482–7, 60.482–8, and 60.483–2, the following requirements apply: (b)(1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. (b)(2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in § 60.482–7(c) and no leak has been detected during those 2 months. (b)(3) The identification on equipment except on a valve, may be removed after it has been repaired. (c) When each leak is detected as specified in §§ 60.482–2, 60.482–3, 60.482–7, 60.482–8, and 60.483–2, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location: (c)(1) The instrument and operator identification numbers and the equipment identification number. (c)(2) The date the leak was detected and the dates of each attempt to repair the leak. (c)(3) Repair methods applied in each attempt to repair the leak. (c)(4) “Above 10,000” if the maximum instrument reading measured by the methods specified in § 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm. (c)(5) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. (c)(6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown. (c)(7) The expected date of successful repair of the leak if a leak is not repaired within 15 days. (c)(8) Dates of process unit shutdowns that occur while the equipment is unrepaired. (c)(9) The date of successful repair of the leak.(e) The following information pertaining to all equipment subject to the requirements in §§ 60.482–1 to 60.482–10 shall be recorded in a log that is kept in a readily accessible location: (e)(1) A list of identification numbers for equipment subject to the requirements of this subpart. (e)(2)(i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §§ 60.482–2(e), 60.482–3(i) and 60.482–7(f). (e)(2)(ii) The designation of equipment as subject to the requirements of § 60.482–2(e), § 60.482–3(i), or § 60.482–7(f) shall be signed by the owner or operator. Alternatively, the owner or operator may establish a mechanism with their permitting authority that satisfies this requirement. (e)(3) A list of equipment identification numbers for pressure relief devices required to comply with § 60.482–4. (e)(4)(i) The dates of each compliance test as required in §§ 60.482–2(e), 60.482–3(i), 60.482–4, and 60.482–7(f). (e)(4)(ii) The background level measured during each compliance test. (e)(4)(iii) The maximum instrument reading measured at the equipment during each compliance test. (e)(5) A list of identification numbers for equipment in vacuum service. (e)(6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with § 60.482–1(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-6, R-7, R-11, R-12 **Control Device ID:** NP-140CFR60.487 Reporting requirements.(a) Each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Administrator beginning six months after the initial startup date. (b) The initial semiannual report to the Administrator shall include the following information: (b)(1) Process unit identification. (b)(2) Number of valves subject to the requirements of § 60.482–7, excluding those valves designated for no detectable emissions under the provisions of § 60.482–7(f). (b)(3) Number of pumps subject to the requirements of § 60.482–2, excluding those pumps designated for no detectable emissions under the provisions of § 60.482–2(e) and those pumps complying with § 60.482–2(f). (b)(4) Number of compressors subject to the requirements of § 60.482–3, excluding those compressors designated for no detectable emissions under the provisions of § 60.482–3(i) and those compressors complying with § 60.482–3(h). (c) All semiannual reports to the Administrator shall include the following information, summarized from the information in § 60.486: (c)(1) Process unit identification. (c)(2) For each month during the semiannual reporting period, (c)(2)(i) Number of valves for which leaks were detected as described in § 60.482–7(b) or § 60.483–2, (c)(2)(ii) Number of valves for which leaks were not repaired as required in § 60.482–7(d)(1), (c)(2)(iii) Number of pumps for which leaks were detected as described in § 60.482–2(b), (d)(4)(ii)(A) or (d)(4)(ii)(B), or (d)(5)(iii), (c)(2)(iv) Number of pumps for which leaks were not repaired as required in § 60.482–2(c)(1) and (d)(6), (c)(2)(v) Number of compressors for which leaks were detected as described in § 60.482–3(f), (c)(2)(vi) Number of compressors for which leaks were not repaired as required in § 60.482–3(g)(1), and (c)(2)(vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible. (c)(3) Dates of process unit shutdowns which occurred within the semiannual reporting period. (c)(4) Revisions to items reported according to paragraph (b) if changes have occurred since the initial report or subsequent revisions to the initial report. |
|  | **Emission Unit ID:** All**Equipment ID:** All**Control Device ID:** All(S.C. Regulation 61-62.1, Section II(E)) This facility has established federally enforceable emissions limitations to limit its potential to emit to less than 100.0 tons per year VOC emissions, 10.0 tons per year for any single HAP emission and 25.0 tons per year for any combination of HAP emissions to avoid PSD, and MACT.The owner or operator shall maintain records of all volatile organic compounds (VOC) and hazardous air pollutants (HAP). These records shall include the total amount of each material used, the VOC content in percent by weight of each material, the HAP content in percent by weight of each material, and any other records necessary to determine VOC and HAP emissions. VOC, individual HAP and total HAP emissions shall be calculated monthly, and a twelve-month rolling sum shall be calculated monthly. Facility-wide emission totals must include emissions from Choose an item. activities. Emissions from malfunctions are required to be quantified and included in the calculations. The twelve-month rolling sum shall be less than 100.0 tons for VOC, 10.0 tons for each individual HAP, and 25.0 tons for total HAPs. Reports of the calculated values and the twelve-month rolling sum, calculated for each month in the reporting period, shall be submitted semiannually.The algorithms, explaining the method used to determine emission rates, are provided below. The results of these algorithms are used to calculate the monthly and twelve-month rolling sum. Subsequent submittals of the algorithm are required within 30 days of the change if the basis for emissions is modified or the Department requests additional information.**Fugitive Emissions from Components**Emission rates for all components are calculated by multiplying the applicable component emission rate by the total number of components in service for each pollutant. Emissions in tons per year (tpy) are calculated by multiplying the hourly emission rate in pounds by 8,760 hr/yr and dividing by 2,000 lb/ton. **Reactor Emissions**Batch reactor emissions are estimated from the displacement of vapor when a process vessel is filled with raw material. Vapor displacement calculations depend on the amount of material in the liquid phase and the temperature dependent vapor pressure. This method conservatively assumes that all VOC and HAP present in the gas phase are emitted. The formula used to calculate the pounds of pollutant emitted per batch from each piece of batch process equipment is as follows:**Batch Process Vent Emission Factor Calculation:**$$Batch Emission Factor \left(\frac{lb}{batch}\right) = \frac{MW \left(\frac{g}{mol}\right) × P \left(atm\right) × Mass \left(lb\right) × 3.785 \frac{liter}{gal}}{Density \left(\frac{lb}{gal}\right) × 0.08206 \frac{L-atm}{mole-Kelvin} × T \left(Kelvin\right) × 454 \frac{g}{lb}}$$Annual emissions are calculated based on the batches produced in a year. Control efficiencies of the scrubber are applied as appropriate to the lb/batch emission factors to estimate worst-case controlled emission factors.**Boiler Emissions**Natural GasEmissions (ton/month) = Natural Gas Usage (MMscf/month) x Natural Gas Emission Factor (lb/MMscf) x 1 ton/2,000 lbNatural gas emission factors are taken from AP-42, Section 1.4 – Natural Gas Combustion Fuel OilEmissions (ton/month) = Fuel OIl Usage (Mgal/month) x Fuel Oil Emission Factor (lb/Mgal) x 1 ton/2,000 lbFuel Oil emission factors are taken from AP-42, Section 1.3 – Fuel Oil Combustion **Storage Tank Emissions**The storage tank farms at the White Stone facility consist of numerous raw material and finished product storage tanks. The storage tanks may store either raw material or product; any tank storing a HAP as raw material or product is specifically denoted as such. Ethylene oxide and propylene oxide are stored separately from the rest of the facility due to hazards associated with these chemicals. Emissions from the storage tanks are calculated using the TANKS program developed by U.S. EPA to estimate air emissions from organic liquids in storage tanks. TANKS allows users to enter specific information about a storage tank (dimensions, construction, paint condition, etc.), the tank contents (chemical components and liquid temperature), and the location of the tank (nearest city, ambient temperature, etc.), to generate an air emissions report. Report features include estimates of monthly, annual, or partial year emissions for each chemical or mixture of chemicals stored in the tank. In theory, storage tank emissions result from the diurnal heating and cooling of the tank contents (“breathing losses”) in addition to the losses associated with tank turnovers (“working losses”). In the algorithm, potential emissions from storage tanks are used instead of actuals. Potential emissions from storage tanks are based on the worst-case from storage of raw materials and storage of products. Although it is no longer used at the facility, acrylic acid is used as a proxy for the worst-case raw material. Since emissions from the worst-case product are higher than those from the worst-case raw material, volatile organic compound (VOC) emissions from storage tanks are calculated using worst-case product emissions. |
|  | **Emission Unit ID:** 18**Equipment ID:** All**Control Device ID:** TO-1This source is subject to New Source Performance Standards (NSPS), 40CFR60 Subpart A (General Provisions) and Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984) and S.C. Regulation 61-62.60 Subparts A and Subpart Kb as applicable. These sources shall comply with all applicable requirements of Subparts A and Kb. |
|  | **Emission Unit ID:** 18**Equipment ID:** T-415**Control Device ID:** TO-140CFR60.110b Applicability and designation of affected facility.(a) Except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m3) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984. |
|  | **Emission Unit ID:** 18**Equipment ID:** T-415**Control Device ID:** TO-140CFR60.112b Standard for volatile organic compounds (VOC)(a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m3 but less than 151 m3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:(a)(3) A closed vent system and control device meeting the following specifications: (a)(3)(i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, § 60.485(b). (a)(3)(ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§ 60.18) of the General Provisions.(b) The owner or operator of each storage vessel with a design capacity greater than or equal to 75 m3 which contains a VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa shall equip each storage vessel with one of the following: (b)(1) A closed vent system and control device as specified in §60.112b(a)(3). (b)(2) A system equivalent to that described in paragraph (b)(1) as provided in §60.114b of this subpart. |
|  | **Emission Unit ID:** 18**Equipment ID:** T-415**Control Device ID:** TO-140CFR60.113b Testing and procedures.(c) The owner or operator of each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare) is exempt from § 60.8 of the General Provisions and shall meet the following requirements. (c)(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below. (c)(1)(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph. (c)(1)(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters). (c)(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies. |
|  | **Emission Unit ID:** 18**Equipment ID:** T-415**Control Device ID:** TO-140CFR60.115b Reporting and recordkeeping requirementsThe owner or operator of each storage vessel as specified in §60.112b(a) shall keep records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment installed to meet the requirements of § 60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least 2 years. The record required by (c)(1) will be kept for the life of the control equipment(c) After installing control equipment in accordance with § 60.112b (a)(3) or (b)(1) (closed vent system and control device other than a flare), the owner or operator shall keep the following records. (c)(1) A copy of the operating plan. (c)(2) A record of the measured values of the parameters monitored in accordance with § 60.113b(c)(2). |
|  | **Emission Unit ID:** 18**Equipment ID:** T-415**Control Device ID:** TO-140CFR60.116b Monitoring of operations(a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source. (b) The owner or operator of each storage vessel as specified in § 60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.(e) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below. (e)(1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.  (e)(3) For other liquids, the vapor pressure: (e)(3)(i) May be obtained from standard reference texts, or (e)(3)(ii) Determined by ASTM D2879–83, 96, or 97 (incorporated by reference—see § 60.17); or (e)(3)(iii) Measured by an appropriate method approved by the Administrator; or (e)(3)(iv) Calculated by an appropriate method approved by the Administrator. (g) The owner or operator of each vessel equipped with a closed vent system and control device meeting the specification of § 60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c) is exempt from the requirements of paragraphs (c) and (d) of this section. |
|  | **Emission Unit ID:** 14, 18**Equipment ID:** All**Control Device ID:** TO-1(40CFR63.988(c) and 40CFR63.988(c)(1)) A temperature monitoring device capable of providing a continuous record shall be installed in the fire box of the Thermal Oxidizer or in the ductwork immediately downstream of the fire box in a position before any substantial heat exchange occurs. Monitoring results shall be recorded as specified in 40CFR63.998(b) and 40CFR63.998(c) as applicable. The owner/operator shall also comply with the applicable general requirements for monitoring and continuous parameter monitoring systems contained in the referencing subpart and 40CFR63.996. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** All**Control Device ID:** NP-1The owner/operator shall conduct daily glycol solution strength (% water) and pH analyses on the scrubber. Each monitored parameter shall be recorded daily during source operation. Operation and maintenance checks shall be made on at least a weekly basis. The scrubber shall be in place and operational whenever processes controlled by it are running, except during periods of scrubber malfunction or mechanical failure.A maximum operational pH and glycol solution strength have been established to ensure proper operation of the scrubber. These maximum operating values for the monitored parameters were derived from stack test data, vendor certification, and/or operational history and visual inspections, which demonstrate the proper operation of the equipment. The facility shall maintain the established maximums and supporting documentation for these monitored parameters. Maximum operating values may be updated following submittal to the Director of Engineering Services. |
|  | **Emission Unit ID:** All**Equipment ID:** All**Control Device ID:** All It has been determined that this facility is subject to S.C. Regulation 61-62.68, Chemical Accident Prevention Provisions, due to in-process storage or use of a regulated substance in quantities above the specified threshold; therefore, the following must be completed:* Submittal of subsequent revisions/corrections/updates of the RMP in accordance with S.C. Regulation 61-62.68.190 and 68.195.
* For Program 1 processes, the owner/operator shall submit along with the RMP the certification statement provided in Section 68.12(b)(4). For all other covered processes, the owner/operator shall submit along with the RMP a single certification that, to the best of the signer’s knowledge, information, and belief formed after reasonable inquiry, the information submitted is true, accurate, and complete.

If it is determined by the implementing agency (or other delegated authority) that additional relevant information is needed, this facility will be required to submit the information in a timely manner. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-2, R-4, R-8 **Control Device ID:** NP-1 These sources are subject to New Source Performance Standards (NSPS), 40CFR60 Subpart A (General Provisions) and Subpart VVa (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced after November 7, 2006), and S.C. Regulation 61-62.60 Subparts A and Subpart VVa, as applicable. These sources shall comply with all applicable requirements of Subparts A and VVa. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-2, R-4, R-8 **Control Device ID:** NP-1 40CFR60.480a Applicability and designation of affected facility.(a)(1) The provisions of this subpart apply to affected facilities in the synthetic organic chemicals manufacturing industry. (a)(2) The group of all equipment (defined in § 60.481a) within a process unit is an affected facility. (b) Any affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after November 7, 2006, shall be subject to the requirements of this subpart. (c) Addition or replacement of equipment for the purpose of process improvement which is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.(f)(2) Owners or operators are not required to comply with the requirements in this paragraph until EPA takes final action to require compliance and publishes a document in the Federal Register. (f)(2)(i) The definition of “process unit” in §60.481a of this subpart. While the definition of “process unit” is stayed, owners or operators should use the following definition: Process unit means components assembled to produce, as intermediate or final products, one or more of the chemicals listed in § 60.489 of this part. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product. (f)(2)(ii) The method of allocation of shared storage vessels in § 60.482–1a(g) of this subpart. (f)(2)(iii) The standards for connectors in gas/vapor service and in light liquid service in § 60.482–11a of this subpart. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-2, R-4, R-8 **Control Device ID:** NP-1 40CFR60.482-1a Standards: General.(a) Each owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of §§ 60.482–1a through 60.482–10a or § 60.480a(e) for all equipment within 180 days of initial startup. (b) Compliance with §§ 60.482–1a to 60.482–10a will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in § 60.485a.(d) Equipment that is in vacuum service is excluded from the requirements of §§ 60.482–2a through 60.482–10a if it is identified as required in § 60.486a(e)(5). (e) Equipment that an owner or operator designates as being in VOC service less than 300 hr/yr is excluded from the requirements of §§ 60.482–2a through 60.482–11a if it is identified as required in §60.486a(e)(6) and it meets any of the conditions specified in paragraphs (e)(1) through (3) of this section. (e)(1) The equipment is in VOC service only during startup and shutdown, excluding startup and shutdown between batches of the same campaign for a batch process. (e)(2) The equipment is in VOC service only during process malfunctions or other emergencies. (e)(3) The equipment is backup equipment that is in VOC service only when the primary equipment is out of service.(f)(1) If a dedicated batch process unit operates less than 365 days during a year, an owner or operator may monitor to detect leaks from pumps and valves at the frequency specified in the following table instead of monitoring as specified in §§ 60.482–2, 60.482–7, and 60.483–2:

|  |  |
| --- | --- |
| **Operating time (percent of hours during year)** | **Equivalent monitoring frequency time in use** |
| **Monthly** | **Quarterly** | **Semiannually** |
| 0 to <50 | Quarterly | Annually | Annually |
| 25 to <50 | Quarterly | Semiannually | Annually |
| 50 to <75 | Bimonthly | Three Quarters | Semiannually |
| 75 to 100 | Monthly | Quarterly | Semiannually |

(f)(2) Pumps and valves that are shared among two or more batch process units that are subject to this subpart may be monitored at the frequencies specified in paragraph (f)(1) of this section, provided the operating time of all such process units is considered. (f)(3) The monitoring frequencies specified in paragraph (f)(1) of this section are not requirements for monitoring at specific intervals and can be adjusted to accommodate process operations. An owner or operator may monitor at any time during the specified monitoring period (e.g., month, quarter, year), provided the monitoring is conducted at a reasonable interval after completion of the last monitoring campaign. Reasonable intervals are defined in paragraphs (f)(3)(i) through (iv) of this section. (f)(3)(i) When monitoring is conducted quarterly, monitoring events must be separated by at least 30 calendar days. (f)(3)(ii) When monitoring is conducted semiannually (i.e., once every 2 quarters), monitoring events must be separated by at least 60 calendar days. (f)(3)(iii) When monitoring is conducted in 3 quarters per year, monitoring events must be separated by at least 90 calendar days. (f)(3)(iv) When monitoring is conducted annually, monitoring events must be separated by at least 120 calendar days. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-2, R-4, R-8 **Control Device ID:** NP-1 40CFR60.482-2a Standards: Pumps in light liquid service.(a)(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in §60.485a(b), except as provided in § 60.482–1a(c) and (f) and paragraphs (d), (e), and (f) of this section. A pump that begins operation in light liquid service after the initial startup date for the process unit must be monitored for the first time within 30 days after the end of its startup period, except for a pump that replaces a leaking pump and except as provided in § 60.482–1a(c) and paragraphs (d), (e), and (f) of this section. (a)(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal, except as provided in § 60.482–1a(f). (b)(1) The instrument reading that defines a leak is specified in paragraphs (b)(1)(i) and (ii) of this section. (b)(1)(i) 5,000 parts per million (ppm) or greater for pumps handling polymerizing monomers; (b)(1)(ii) 2,000 ppm or greater for all other pumps. (b)(2) If there are indications of liquids dripping from the pump seal, the owner or operator shall follow the procedure specified in either paragraph (b)(2)(i) or (ii) of this section. This requirement does not apply to a pump that was monitored after a previous weekly inspection and the instrument reading was less than the concentration specified in paragraph (b)(1)(i) or (ii) of this section, whichever is applicable. (b)(2)(i) Monitor the pump within 5 days as specified in § 60.485a(b). A leak is detected if the instrument reading measured during monitoring indicates a leak as specified in paragraph (b)(1)(i) or (ii) of this section, whichever is applicable. The leak shall be repaired using the procedures in paragraph (c) of this section. (b)(2)(ii) Designate the visual indications of liquids dripping as a leak, and repair the leak using either the procedures in paragraph (c) of this section or by eliminating the visual indications of liquids dripping. (c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482–9a. (c)(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the practices described in paragraphs (c)(2)(i) and (ii) of this section, where practicable. (c)(2)(i) Tightening the packing gland nuts; (c)(2)(ii) Ensuring that the seal flush is operating at design pressure and temperature. (d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of paragraph (a) of this section, provided the requirements specified in paragraphs (d)(1) through (6) of this section are met. (d)(1) Each dual mechanical seal system is: (d)(1)(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or (d)(1)(ii) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed vent system to a control device that complies with the requirements of § 60.482–10a; or (d)(1)(iii) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere. (d)(2) The barrier fluid system is in heavy liquid service or is not in VOC service. (d)(3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both. (d)(4)(i) Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals. (d)(4)(ii) If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either paragraph (d)(4)(ii)(A) or (B) of this section prior to the next required inspection. (d)(4)(ii)(A) Monitor the pump within 5 days as specified in § 60.485a(b) to determine if there is a leak of VOC in the barrier fluid. If an instrument reading of 2,000 ppm or greater is measured, a leak is detected. (d)(4)(ii)(B) Designate the visual indications of liquids dripping as a leak. (d)(5)(i) Each sensor as described in paragraph (d)(3) is checked daily or is equipped with an audible alarm. (d)(5)(ii) The owner or operator determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. (d)(5)(iii) If the sensor indicates failure of the seal system, the barrier fluid system, or both, based on the criterion established in paragraph (d)(5)(ii) of this section, a leak is detected. (d)(6)(i) When a leak is detected pursuant to paragraph (d)(4)(ii)(A) of this section, it shall be repaired as specified in paragraph (c) of this section. (d)(6)(ii) A leak detected pursuant to paragraph (d)(5)(iii) of this section shall be repaired within 15 days of detection by eliminating the conditions that activated the sensor. (d)(6)(iii) A designated leak pursuant to paragraph (d)(4)(ii)(B) of this section shall be repaired within 15 days of detection by eliminating visual indications of liquids dripping. (e) Any pump that is designated, as described in § 60.486a(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraphs (a), (c), and (d) of this section if the pump: (e)(1) Has no externally actuated shaft penetrating the pump housing; (e)(2) Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in § 60.485a(c); and (e)(3) Is tested for compliance with paragraph (e)(2) of this section initially upon designation, annually, and at other times requested by the Administrator.(g) Any pump that is designated, as described in § 60.486a(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of paragraphs (a) and (d)(4) through (6) of this section if: (g)(1) The owner or operator of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section; and (g)(2) The owner or operator of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in paragraph (c) of this section if a leak is detected. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-2, R-4, R-8 **Control Device ID:** NP-1 40CFR60.482-4a Standards: Pressure relief devices in gas/vapor service.(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in § 60.485a(c). (b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in § 60.482–9a. (b)(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in § 60.485a(c). (c) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in § 60.482–10a is exempted from the requirements of paragraphs (a) and (b) of this section. (d)(1) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of paragraphs (a) and (b) of this section, provided the owner or operator complies with the requirements in paragraph (d)(2) of this section. (d)(2) After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in § 60.482–9a. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-2, R-4, R-8 **Control Device ID:** NP-1 40CFR60.482-5a Standards: Sampling connection systems.(c) In-situ sampling systems and sampling systems without purges are exempt from the requirements of paragraphs (a) and (b) of this section. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-2, R-4, R-8 **Control Device ID:** NP-1 40CFR60.482-6a Standards: Open-ended valves or lines.(a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in § 60.482–1a(c) and paragraphs (d) and (e) of this section. (a)(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. (b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. (c) When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (a) of this section at all other times. (d) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (a), (b), and (c) of this section. (e) Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in paragraphs (a) through (c) of this section are exempt from the requirements of paragraphs (a) through (c) of this section. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-2, R-4, R-8 **Control Device ID:** NP-1 40CFR60.482-7a Standards: Valves in gas/vapor service and in light liquid service.(a)(1) Each valve shall be monitored monthly to detect leaks by the methods specified in § 60.485a(b) and shall comply with paragraphs (b) through (e) of this section, except as provided in paragraphs (f), (g), and (h) of this section, § 60.482–1a(c) and (f), and §§ 60.483–1a and 60.483–2a. (a)(2) A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored according to paragraphs (a)(2)(i) or (ii), except for a valve that replaces a leaking valve and except as provided in paragraphs (f), (g), and (h) of this section, § 60.482–1a(c), and §§ 60.483–1a and 60.483–2a. (a)(2)(i) Monitor the valve as in paragraph (a)(1) of this section. The valve must be monitored for the first time within 30 days after the end of its startup period to ensure proper installation. (a)(2)(ii) If the existing valves in the process unit are monitored in accordance with § 60.483–1a or § 60.483–2a, count the new valve as leaking when calculating the percentage of valves leaking as described in § 60.483–2a(b)(5). If less than 2.0 percent of the valves are leaking for that process unit, the valve must be monitored for the first time during the next scheduled monitoring event for existing valves in the process unit or within 90 days, whichever comes first. (b) If an instrument reading of 500 ppm or greater is measured, a leak is detected. (c)(1)(i) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. (c)(1)(ii) As an alternative to monitoring all of the valves in the first month of a quarter, an owner or operator may elect to subdivide the process unit into two or three subgroups of valves and monitor each subgroup in a different month during the quarter, provided each subgroup is monitored every 3 months. The owner or operator must keep records of the valves assigned to each subgroup. (c)(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. (d)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in § 60.482–9a. (d)(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. (e) First attempts at repair include, but are not limited to, the following best practices where practicable: (e)(1) Tightening of bonnet bolts; (e)(2) Replacement of bonnet bolts; (e)(3) Tightening of packing gland nuts; (e)(4) Injection of lubricant into lubricated packing. (f) Any valve that is designated, as described in § 60.486a(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of paragraph (a) of this section if the valve: (f)(1) Has no external actuating mechanism in contact with the process fluid, (f)(2) Is operated with emissions less than 500 ppm above background as determined by the method specified in § 60.485a(c), and (f)(3) Is tested for compliance with paragraph (f)(2) of this section initially upon designation, annually, and at other times requested by the Administrator. (g) Any valve that is designated, as described in § 60.486a(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of paragraph (a) of this section if: (g)(1) The owner or operator of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraph (a) of this section, and (g)(2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. (h) Any valve that is designated, as described in § 60.486a(f)(2), as a difficult-to-monitor valve is exempt from the requirements of paragraph (a) of this section if: (h)(1) The owner or operator of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface. (h)(2) The process unit within which the valve is located either: (h)(2)(i) Becomes an affected facility through § 60.14 or § 60.15 and was constructed on or before January 5, 1981; or (h)(2)(ii) Has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the owner or operator. (h)(3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-2, R-4, R-8 **Control Device ID:** NP-1 40CFR60.482-8a Standards: Pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service.(a) If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, the owner or operator shall follow either one of the following procedures: (a)(1) The owner or operator shall monitor the equipment within 5 days by the method specified in § 60.485a(b) and shall comply with the requirements of paragraphs (b) through (d) of this section. (a)(2) The owner or operator shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection. (b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. (c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in § 60.482–9a. (c)(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. (d) First attempts at repair include, but are not limited to, the best practices described under §§ 60.482–2a(c)(2) and 60.482–7a(e). |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-2, R-4, R-8 **Control Device ID:** NP-1 40CFR60.482-9a Standards: Delay of repair.(a) Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit. (b) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service. (c) Delay of repair for valves and connectors will be allowed if: (c)(1) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and (c)(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with § 60.482–10a. (d) Delay of repair for pumps will be allowed if: (d)(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and (d)(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected. (e) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown. (f) When delay of repair is allowed for a leaking pump, valve, or connector that remains in service, the pump, valve, or connector may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition. |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-2, R-4, R-8 **Control Device ID:** NP-1 40CFR60.485a Test methods and procedures.(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b). (b) The owner or operator shall determine compliance with the standards in §§ 60.482–1a through 60.482–11a, 60.483a, and 60.484a as follows: (b)(1) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 of appendix A–7 of this part. The following calibration gases shall be used: (b)(1)(i) Zero air (less than 10 ppm of hydrocarbon in air); and (b)(1)(ii) A mixture of methane or n-hexane and air at a concentration no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the owner or operator need not calibrate the scales that will not be used during that day's monitoring. (b)(2) A calibration drift assessment shall be performed, at a minimum, at the end of each monitoring day. Check the instrument using the same calibration gas(es) that were used to calibrate the instrument before use. Follow the procedures specified in Method 21 of appendix A–7 of this part, Section 10.1, except do not adjust the meter readout to correspond to the calibration gas value. Record the instrument reading for each scale used as specified in § 60.486a(e)(7). Calculate the average algebraic difference between the three meter readings and the most recent calibration value. Divide this algebraic difference by the initial calibration value and multiply by 100 to express the calibration drift as a percentage. If any calibration drift assessment shows a negative drift of more than 10 percent from the initial calibration value, then all equipment monitored since the last calibration with instrument readings below the appropriate leak definition and above the leak definition multiplied by (100 minus the percent of negative drift/divided by 100) must be re-monitored. If any calibration drift assessment shows a positive drift of more than 10 percent from the initial calibration value, then, at the owner/operator's discretion, all equipment since the last calibration with instrument readings above the appropriate leak definition and below the leak definition multiplied by (100 plus the percent of positive drift/divided by 100) may be re-monitored. (c) The owner or operator shall determine compliance with the no-detectable-emission standards in §§ 60.482–2a(e), 60.482–3a(i), 60.482–4a, 60.482–7a(f), and 60.482–10a(e) as follows: (c)(1) The requirements of paragraph (b) shall apply. (c)(2) Method 21 of appendix A–7 of this part shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. (d) The owner or operator shall test each piece of equipment unless he demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: (d)(1) Procedures that conform to the general methods in ASTM E260–73, 91, or 96, E168–67, 77, or 92, E169–63, 77, or 93 (incorporated by reference—see § 60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment. (d)(2) Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid. (d)(3) Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, paragraphs (d)(1) and (2) of this section shall be used to resolve the disagreement. (e) The owner or operator shall demonstrate that a piece of equipment is in light liquid service by showing that all the following conditions apply: (e)(1) The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 °C (1.2 in. H2O at 68°F). Standard reference texts or ASTM D2879–83, 96, or 97 (incorporated by reference—see § 60.17) shall be used to determine the vapor pressures. (e)(2) The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 °C (1.2 in. H2O at 68°F) is equal to or greater than 20 percent by weight. (e)(3) The fluid is a liquid at operating conditions.  |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-2, R-4, R-8 **Control Device ID:** NP-1 40CFR60.486a Recordkeeping requirements.(a)(1) Each owner or operator subject to the provisions of this subpart shall comply with the recordkeeping requirements of this section. (a)(2) An owner or operator of more than one affected facility subject to the provisions of this subpart may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. (a)(3) The owner or operator shall record the information specified in paragraphs (a)(3)(i) through (v) of this section for each monitoring event required by §§ 60.482–2a, 60.482–3a, 60.482–7a, 60.482–8a, 60.482–11a, and 60.483–2a. (a)(3)(i) Monitoring instrument identification. (a)(3)(ii) Operator identification. (a)(3)(iii) Equipment identification. (a)(3)(iv) Date of monitoring. (a)(3)(v) Instrument reading. (b) When each leak is detected as specified in §§ 60.482–2a, 60.482–3a, 60.482–7a, 60.482–8a, 60.482–11a, and 60.483–2a, the following requirements apply: (b)(1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. (b)(2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in § 60.482–7a(c) and no leak has been detected during those 2 months. (b)(3) The identification on a connector may be removed after it has been monitored as specified in § 60.482–11a(b)(3)(iv) and no leak has been detected during that monitoring. (b)(4) The identification on equipment, except on a valve or connector, may be removed after it has been repaired. (c) When each leak is detected as specified in §§ 60.482–2a, 60.482–3a, 60.482–7a, 60.482–8a, 60.482–11a, and 60.483–2a, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location: (c)(1) The instrument and operator identification numbers and the equipment identification number, except when indications of liquids dripping from a pump are designated as a leak. (c)(2) The date the leak was detected and the dates of each attempt to repair the leak. (c)(3) Repair methods applied in each attempt to repair the leak. (c)(4) Maximum instrument reading measured by Method 21 of appendix A–7 of this part at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping. (c)(5) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. (c)(6) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown. (c)(7) The expected date of successful repair of the leak if a leak is not repaired within 15 days. (c)(8) Dates of process unit shutdowns that occur while the equipment is unrepaired. (c)(9) The date of successful repair of the leak.(e) The following information pertaining to all equipment subject to the requirements in §§ 60.482–1a to 60.482–11a shall be recorded in a log that is kept in a readily accessible location: (e)(1) A list of identification numbers for equipment subject to the requirements of this subpart. (e)(2)(i) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §§ 60.482–2a(e), 60.482–3a(i), and 60.482–7a(f). (e)(2)(ii) The designation of equipment as subject to the requirements of § 60.482–2a(e), § 60.482–3a(i), or § 60.482–7a(f) shall be signed by the owner or operator. Alternatively, the owner or operator may establish a mechanism with their permitting authority that satisfies this requirement. (e)(3) A list of equipment identification numbers for pressure relief devices required to comply with § 60.482–4a. (e)(4)(i) The dates of each compliance test as required in §§ 60.482–2a(e), 60.482–3a(i), 60.482–4a, and 60.482–7a(f). (e)(4)(ii) The background level measured during each compliance test. (e)(4)(iii) The maximum instrument reading measured at the equipment during each compliance test. (e)(5) A list of identification numbers for equipment in vacuum service. (e)(6) A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr in accordance with § 60.482–1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr. (e)(7) The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service. (e)(8) Records of the information specified in paragraphs (e)(8)(i) through (vi) of this section for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of appendix A–7 of this part and § 60.485a(b). (e)(8)(i) Date of calibration and initials of operator performing the calibration. (e)(8)(ii) Calibration gas cylinder identification, certification date, and certified concentration. (e)(8)(iii) Instrument scale(s) used. (e)(8)(iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of appendix A–7 of this part. (e)(8)(v) Results of each calibration drift assessment required by § 60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value). (e)(8)(vi) If an owner or operator makes their own calibration gas, a description of the procedure used. (e)(10) Records of each release from a pressure relief device subject to § 60.482–4a.(f) The following information pertaining to all valves subject to the requirements of § 60.482–7a(g) and (h), all pumps subject to the requirements of § 60.482–2a(g), and all connectors subject to the requirements of § 60.482–11a(e) shall be recorded in a log that is kept in a readily accessible location: (f)(1) A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector. (f)(2) A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.(h) The following information shall be recorded in a log that is kept in a readily accessible location: (h)(1) Design criterion required in §§ 60.482–2a(d)(5) and 60.482–3a(e)(2) and explanation of the design criterion; and (h)(2) Any changes to this criterion and the reasons for the changes.(k) The provisions of § 60.7(b) and (d) do not apply to affected facilities subject to this subpart.  |
|  | **Emission Unit ID:** 06, 07**Equipment ID:** R-2, R-4, R-8 **Control Device ID:** NP-1 60.487a Reporting requirements.(a) Each owner or operator subject to the provisions of this subpart shall submit semiannual reports to the Administrator beginning 6 months after the initial startup date. (b) The initial semiannual report to the Administrator shall include the following information: (b)(1) Process unit identification. (b)(2) Number of valves subject to the requirements of § 60.482–7a, excluding those valves designated for no detectable emissions under the provisions of § 60.482–7a(f). (b)(3) Number of pumps subject to the requirements of § 60.482–2a, excluding those pumps designated for no detectable emissions under the provisions of § 60.482–2a(e) and those pumps complying with § 60.482–2a(f). (b)(4) Number of compressors subject to the requirements of § 60.482–3a, excluding those compressors designated for no detectable emissions under the provisions of § 60.482–3a(i) and those compressors complying with § 60.482–3a(h). (b)(5) Number of connectors subject to the requirements of § 60.482–11a. (c) All semiannual reports to the Administrator shall include the following information, summarized from the information in § 60.486a: (c)(1) Process unit identification. (c)(2) For each month during the semiannual reporting period, (c)(2)(i) Number of valves for which leaks were detected as described in § 60.482–7a(b) or § 60.483–2a, (c)(2)(ii) Number of valves for which leaks were not repaired as required in § 60.482–7a(d)(1), (c)(2)(iii) Number of pumps for which leaks were detected as described in § 60.482–2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), (c)(2)(iv) Number of pumps for which leaks were not repaired as required in § 60.482–2a(c)(1) and (d)(6), (c)(2)(v) Number of compressors for which leaks were detected as described in § 60.482–3a(f), (c)(2)(vi) Number of compressors for which leaks were not repaired as required in § 60.482–3a(g)(1), (c)(2)(vii) Number of connectors for which leaks were detected as described in § 60.482–11a(b) (c)(2)(viii) Number of connectors for which leaks were not repaired as required in § 60.482–11a(d), and (c)(2)(xi) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible. (c)(3) Dates of process unit shutdowns which occurred within the semiannual reporting period. (c)(4) Revisions to items reported according to paragraph (b) of this section if changes have occurred since the initial report or subsequent revisions to the initial report. |

| 1. NESHAP (40 CFR 61 AND 40 CFR 63)
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| **Condition Number** | **Conditions** |
|  | (40 CFR §63.9(a)(4)(ii) and §63.10(a)(4)(ii)) All NESHAP notifications and reports shall be sent to the Department. Electronic submission of notifications or reports to the United States Environmental Protection Agency (US EPA) via CEDRI (Compliance and Emissions Data Reporting Interface) shall serve as the submission to the Department. CEDRI can be accessed through the EPA's Central Data Exchange (CDX). |
|  | (40 CFR §63.9(a)(4)(ii) and §63.10(a)(4)(ii)) All NESHAP notifications and reports requiring electronic submission to US EPA shall be submitted to EPA via CEDRI. Notifications and reports for specific NESHAP subparts not yet requiring electronic submission may also be submitted via CEDRI. Notifications and the accompanying cover letter for periodic reports not submitted via CEDRI shall be sent to the US EPA Region 4 Air and Radiation Division as required by the applicable subpart. |
|  | Emergency engines less than or equal to 150 kilowatt (kW) rated capacity, emergency engines greater than 150 kW rated capacity designated for emergency use only and operated a total of 500 hours per year or less for testing and maintenance and have a method to record the actual hours of use, such as an hour meter, and diesel engine driven emergency fire pumps that are operated a total of 500 hours per year or less for testing and maintenance and have a method to record the actual hours of use, such as an hour meter, have been determined to be exempt from construction permitting requirements in accordance with S.C. Regulation 61-62.1.(40 CFR 60; 40 CFR 63) If present, these sources shall still comply with the requirements of all applicable regulations, including but not limited to the following:New Source Performance Standards (NSPS) 40 CFR 60 Subpart A (General Provisions);NSPS 40 CFR 60 Subpart IIII (Stationary Compression Ignition Internal Combustion Engines);NSPS 40 CFR 60 Subpart JJJJ (Stationary Spark Ignition Internal Combustion Engines);National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 63 Subpart A (General Provisions); andNESHAP 40 CFR 63 Subpart ZZZZ (Stationary Reciprocating Internal Combustion Engines). |
| C.4 | **Emission Unit ID:** 14**Equipment ID:** R-10, T-234, T-501, T-415**Control Device ID:** TO-1This facility has processes subject to the provisions of S.C. Regulation 61-62.63 and 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants, Subparts A (General Provisions) and Subpart VVVVVV (National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources). Existing affected sources shall be in compliance with the requirements of these Subparts on the compliance date, unless otherwise noted. Any new affected sources shall comply with the requirements of these Subparts upon initial start-up unless otherwise noted. |
| C.5 | **Emission Unit ID:** 14**Equipment ID:** R-10, T-234, T-501, T-415**Control Device ID:** TO-140CFR63.11494 What are the applicability requirements and compliance dates?(a) Except as specified in paragraph (c) of this section, you are subject to this subpart if you own or operate a chemical manufacturing process unit (CMPU) that meets the conditions specified in paragraphs (a)(1) and (2) of this section. (a)(1) The CMPU is located at an area source of hazardous air pollutant (HAP) emissions. (a)(2) HAP listed in Table 1 to this subpart (Table 1 HAP) are present in the CMPU, as specified in paragraph (a)(2)(i), (a)(2)(ii), (a)(2)(iii), or (a)(2)(iv) of this section. (a)(2)(i) The CMPU uses as feedstock, any material that contains quinoline, manganese, and/or trivalent chromium at an individual concentration greater than 1.0 percent by weight, or any other Table 1 HAP at an individual concentration greater than 0.1 percent by weight. To determine the Table 1 HAP content of feedstocks, you may rely on formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet (MSDS) for the material. If the concentration in an MSDS is presented as a range, use the upper bound of the range. (a)(2)(iii) Hydrazine and/or Table 1 organic HAP other than quinoline are generated as byproduct and are present in the CMPU in any liquid stream (process or waste), continuous process vent, or batch process vent at an individual concentration greater than 0.1 percent by weight. (a)(2)(iv) Hydrazine or any Table 1 HAP is produced as a product of the CMPU.(b) A CMPU includes all process vessels, equipment, and activities necessary to operate a chemical manufacturing process that produces a material or a family of materials described by North American Industry Classification System (NAICS) code 325. A CMPU consists of one or more unit operations and any associated recovery devices. A CMPU also includes each storage tank, transfer operation, surge control vessel, and bottoms receiver associated with the production of such NAICS code 325 materials.(d) This subpart applies to each new or existing affected source. The affected source is the facility-wide collection of CMPUs and each heat exchange system and wastewater system associated with a CMPU that meets the criteria specified in paragraphs (a) and (b) of this section. A CMPU using only Table 1 organic HAP is required to control only total CAA section 112(b) organic HAP. A CMPU using only Table 1 metal HAP is required to control only total CAA section 112(b) metal HAP in accordance with § 63.11495 and, if applicable, § 63.11496(f). (d)(1) An affected source is an existing source if you commenced construction or reconstruction of the affected source before October 6, 2008. (e) Any area source that installed a federally-enforceable control device on an affected CMPU is required to obtain a permit under 40 CFR part 70 or 40 CFR part 71 if the control device on the affected CMPU is necessary to maintain the source's emissions at area source levels. For new and existing sources subject to this rule on December 21, 2012 and subject to title V as a result of this rule, a complete title V permit application must be submitted no later than December 21, 2013. New and existing sources that become subject to this rule after December 21, 2012 must submit a complete title V permit application no later than 12 months after becoming subject to this rule if the source is subject to title V as a result of this rule. Otherwise, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not otherwise required by law to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a). Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart.(f) If you own or operate an existing affected source, you must achieve compliance with the applicable provisions in this subpart no later than March 21, 2013. |
| C.6 | **Emission Unit ID:** 14**Equipment ID:** R-10, T-234, T-501, T-415**Control Device ID:** TO-140CFR63.11495 What are the management practices and other requirements?(a) Management practices. If you have a CMPU subject to this subpart, you must comply with paragraphs (a)(1) through (a)(5) of this section. (a)(1) Each process vessel must be equipped with a cover or lid that must be closed at all times when it is in organic HAP service or metal HAP service, except for manual operations that require access, such as material addition and removal, inspection, sampling and cleaning. This requirement does not apply to process vessels containing only metal HAP that are in a liquid solution or other form that will not result in particulate emissions of metal HAP (e.g., metal HAP that is in ingot, paste, slurry, or moist pellet form or other form). (a)(2) You must use any of the methods listed in paragraphs (a)(2)(i) through (iv) of this section to control total organic HAP emissions from transfer of liquids containing Table 1 organic HAP to tank trucks or railcars. You are not required to comply with this paragraph (a)(2) if you have notified the Administrator in your initial notification that a material is reactive or resinous, and you will not be able to comply with any of the methods in paragraphs (a)(2)(i) through (iv) of this section for the transfer of such material. (a)(2)(i) Use submerged loading or bottom loading. (a)(2)(ii) Route emissions to a fuel gas system or process in accordance with § 63.982(d) of subpart SS. (a)(2)(iii) Vapor balance back to the storage tank or another storage tank connected by a common header. (a)(2)(iv) Vent through a closed-vent system to a control device. (a)(3) You must conduct inspections of process vessels and equipment for each CMPU in organic HAP service or metal HAP service, as specified in paragraphs (a)(3)(i) through (v) of this section, to demonstrate compliance with paragraph (a)(1) of this section and to determine that the process vessels and equipment are sound and free of leaks. Alternatively, except when the subject CMPU contains metal HAP as particulate, inspections may be conducted while the subject process vessels and equipment are in VOC service, provided that leaks can be detected when in VOC service. (a)(3)(i) Inspections must be conducted at least quarterly. (a)(3)(ii) For these inspections, detection methods incorporating sight, sound, or smell are acceptable. Indications of a leak identified using such methods constitute a leak unless you demonstrate that the indications of a leak are due to a condition other than loss of HAP. If indications of a leak are determined not to be HAP in one quarterly monitoring period, you must still perform the inspection and demonstration in the next quarterly monitoring period. (a)(3)(iii) As an alternative to conducting inspections, as specified in paragraph (a)(3)(ii) of this section, you may use Method 21 of 40 CFR part 60, appendix A–7, with a leak definition of 500 ppmv to detect leaks. You may also use Method 21 with a leak definition of 500 ppmv to determine if indications of a leak identified during an inspection conducted in accordance with paragraph (a)(3)(ii) of this section are due to a condition other than loss of HAP. The procedures in this paragraph (a)(3)(iii) may not be used as an alternative to the inspection required by paragraph (a)(3)(ii) of this section for process vessels that contain metal HAP as particulate. (a)(3)(iv) Inspections must be conducted while the subject CMPU is operating. (a)(3)(v) No inspection is required in a calendar quarter during which the subject CMPU does not operate for the entire calendar quarter and is not in organic HAP service or metal HAP service. If the CMPU operates at all during a calendar quarter, an inspection is required. (a)(4) You must repair any leak within 15 calendar days after detection of the leak, or document the reason for any delay of repair. For the purposes of this paragraph (a)(4), a leak will be considered “repaired” if a condition specified in paragraph (a)(4)(i), (ii), or (iii) of this section is met. (a)(4)(i) The visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated, or (a)(4)(ii) No bubbles are observed at potential leak sites during a leak check using soap solution, or (a)(4)(iii) The system will hold a test pressure. (a)(5) You must keep records of the dates and results of each inspection event, the dates of equipment repairs, and, if applicable, the reasons for any delay in repair.(c) Startup, shutdown and malfunction. Startup, shutdown, and malfunction (SSM) provisions in subparts that are referenced in paragraphs (a) and (b) of this section do not apply. (d) General duty. At all times, you must operate and maintain any affected CMPU, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator, 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 CMPU. |
| C.7 | **Emission Unit ID:** 14**Equipment ID:** R-10, T-234, T-501, T-415**Control Device ID:** TO-140CFR63.11496 What are the standards and compliance requirements for process vents?(a) Organic HAP emissions from batch process vents. You must comply with the requirements in paragraphs (a)(1) through (4) of this section for organic HAP emissions from your batch process vents for each CMPU using Table 1 organic HAP. If uncontrolled organic HAP emissions from all batch process vents from a CMPU subject to this subpart are equal to or greater than 10,000 pounds per year (lb/yr), you must also comply with the emission limits and other requirements in Table 2 to this subpart. (a)(1) You must determine the sum of actual organic HAP emissions from all of your batch process vents within a CMPU subject to this subpart using process knowledge, engineering assessment, or test data. Emissions for a standard batch in a process may be used to represent actual emissions from each batch in that process. You must maintain records of the calculations. Calculations of annual emissions are not required if you meet the emission standards for batch process vents in Table 2 to this subpart. (a)(2) As an alternative to calculating actual emissions for each affected CMPU at your facility, you may elect to estimate emissions for each CMPU based on the emissions for the worst-case CMPU. The worst-case CMPU means the CMPU at the affected source with the highest organic HAP emissions per batch. The worst-case emissions per batch are used with the number of batches run for other affected CMPU. Process knowledge, engineering assessment, or test data may be used to identify the worst-case process. You must keep records of the information and procedures used to identify the worst-case process. (a)(3) If your current estimate is that emissions from batch process vents from a CMPU are less than 10,000 pounds per year (lb/yr), then you must keep a record of the number of batches of each process operated per month. Also, you must reevaluate your total emissions from batch process vents prior to making any process changes that affect emission calculations in paragraphs (a)(1) and (2) of this section. If projected emissions increase to 10,000 lb/yr or more, you must be in compliance options for batch process vents in Table 2 to this subpart upon initiating operation under the new operating conditions. You must maintain records documenting the results of all updated emissions calculations. (a)(4) As an alternative to determining the HAP emissions, you may elect to demonstrate that the amount of organic HAP used in the process is less than 10,000 lb/yr. You must keep monthly records of the organic HAP usage.(g) Exceptions and alternatives to 40 CFR part 63, subpart SS. If you are complying with the emission limits and other requirements for continuous process vents in Table 3 to this subpart, the provisions in paragraphs (g)(1) through (7) and (9) of this section apply in addition to the provisions in 40 CFR part 63, subpart SS. If you are complying with the emission limits and other requirements for batch process vents in Table 2 to this subpart, the provisions in paragraphs (g)(1) through (8) of this section apply in addition to the provisions in subpart SS. (g)(1) Requirements for performance tests. (g)(1)(i) The requirements specified in § 63.2450(g)(1) through (4) apply instead of, or in addition to, the requirements specified in 40 CFR part 63, subpart SS. (g)(1)(ii) Upon request, you shall make available to the Administrator, such records as may be necessary to determine the conditions of performance tests. (g)(2) Design evaluation. To determine initial compliance with a percent reduction or outlet concentration emission limit, you may elect to conduct a design evaluation as specified in § 63.1257(a)(1) instead of a performance test as specified in subpart SS of this part 63. You must establish the value(s) and basis for the operating limits as part of the design evaluation. For continuous process vents, the design evaluation must be conducted at maximum representative operating conditions for the process, unless the Administrator specifies or approves alternate operating conditions. For batch process vents, the design evaluation must be conducted under worst-case conditions, as specified in § 63.2460(c)(2).(g)(5) Startup, shutdown, malfunction (SSM). Sections 63.996(c)(2)(ii) and 63.998(b)(2)(iii), (b)(6)(i)(A), (c)(1)(ii)(E) and (d)(3) do not apply for the purposes of this subpart. (g)(6) Excused excursions. Excused excursions, as defined in subpart SS of this part 63, are not allowed.(g)(8) Additional requirements for batch process vents. The provisions specified in § 63.2460(c) apply in addition to the provisions in subpart SS of this part 63, except as specified in paragraphs (g)(8)(i) through (iii) of this section. (g)(8)(i) References to emission limits in Table 2 to subpart FFFF mean the emission limits in Table 2 to this subpart. (g)(8)(ii) References to MCPU mean CMPU for purposes of this subpart. (g)(8)(iii) Section 63.2460(c)(8) does not apply for the purposes of this subpart.(g)(9) Parameter monitoring averaging periods. Daily averages required in § 63.998(b)(3) apply at all times except during startup and shutdown. Separate averages shall be determined for each period of startup and period of shutdown. (h) Surge control vessels and bottoms receivers. For each surge control vessel and bottoms receiver that meets the applicability criteria for storage tanks specified in Table 5 to this subpart, you must meet the emission limits and control requirements specified in Table 5 to this subpart. (i) Startup, shutdown, and malfunction (SSM). References to SSM provisions in subparts that are referenced in paragraphs (a) through (h) of this section or Tables 2 through 5 to this subpart do not apply. |
| C.8 | **Emission Unit ID:** 14**Equipment ID:** R-10, T-234, T-501, T-415**Control Device ID:** TO-140CFR63.11497 What are the standards and compliance requirements for storage tanks?(a) You must comply with the emission limits and other requirements in Table 5 to this subpart and in paragraph (b) of this section for organic HAP emissions from each of your storage tanks that meet the applicability criteria in Table 5 to this subpart. (b) Planned routine maintenance for a control device. Operate in accordance with paragraphs (b)(1) through (3) of this section for periods of planned routine maintenance of a control device for storage tanks. (b)(1) Add no material to the storage tank during periods of planned routine maintenance. (b)(2) Limit periods of planned routine maintenance for each control device (or series of control devices) to no more than 240 hours per year (hr/yr), or submit an application to the Administrator requesting an extension of this time limit to a total of 360 hr/yr. The application must explain why the extension is needed and it must be submitted at least 60 days before the 240-hour limit will be exceeded. (b)(3) Keep records of the day and time at which planned routine maintenance periods begin and end, and keep a record of the type of maintenance performed. (c) References to SSM provisions in subparts that are referenced in paragraphs (a) or (b) of this section or Table 5 to this subpart do not apply. |
| C.9 | **Emission Unit ID:** 14**Equipment ID:** R-10, T-234, T-501, T-415**Control Device ID:** TO-140CFR63.11498 What are the standards and compliance requirements for wastewater systems?(a) You must comply with the requirements in paragraph (a)(1) and (a)(2) of this section and in Table 6, Item 1 to this subpart for all wastewater streams from a CMPU subject to this subpart. If the partially soluble HAP concentration in a wastewater stream is equal to or greater than 10,000 parts per million by weight (ppmw) and the wastewater stream contains a separate organic phase, then you must also comply with Table 6, Item 2 to this subpart for that wastewater stream. Partially soluble HAP are listed in Table 7 to this subpart. (a)(1) Except as specified in paragraph (a)(2) of this section, you must determine the total concentration of partially soluble HAP in each wastewater stream using process knowledge, engineering assessment, or test data. Also, you must reevaluate the concentration of partially soluble HAP if you make any process or operational change that affects the concentration of partially soluble HAP in a wastewater stream. (a)(2) You are not required to determine the partially soluble concentration in wastewater that is hard piped to a combustion unit or hazardous waste treatment unit, as specified in Table 6, Item 2.b to this subpart. (a)(3) Separated organic material that is recycled to a process is no longer wastewater and no longer subject to the wastewater requirements after it has been recycled. (b) The requirements in Item 2 of Table 6 to this subpart do not apply during periods of startup or shutdown. References to SSM provisions in subparts that are referenced in paragraph (a) of this section or Table 6 to this subpart do not apply. |
| C.10 | **Emission Unit ID:** 14**Equipment ID:** R-10, T-234, T-501, T-415**Control Device ID:** TO-140CFR63.11501 What are the notification, recordkeeping, and reporting requirements, and how may I assert an affirmative defense for violation of emission standards during malfunction?(a) General provisions. You must meet the requirements of the General Provisions in 40 CFR part 63, subpart A, as shown in Table 9 to this subpart. The General Provisions in other parts do not apply except when a requirement in an overlapping standard, which you determined is at least as stringent as subpart VVVVVV and with which you have opted to comply, requires compliance with general provisions in another part. (b) Notification of compliance status (NOCS). Your NOCS required by § 63.9(h) must include the following additional information as applicable: (b)(1) This certification of compliance, signed by a responsible official: (b)(1)(i) “This facility complies with the management practices in § 63.11495.” (b)(1)(ii) “This facility complies with the requirements in § 63.11496 for HAP emissions from process vents.” (b)(1)(iii) “This facility complies with the requirements in § 63.11496 and § 63.11497 for surge control vessels, bottoms receivers, and storage tanks.” (b)(1)(iv) “This facility complies with the requirements in § 63.11498 to treat wastewater streams.” (b)(2) If you comply with the alternative standard as specified in Table 2 to this subpart or Table 3 to this subpart, include the information specified in § 63.1258(b)(5), as applicable. (b)(3) If you establish an operating limit for a parameter that will not be monitored continuously in accordance with §§ 63.11496(g)(4) and 63.2450(k)(6), provide the information as specified in §§ 63.11496(g)(4) and 63.2450(k)(6). (b)(4) A list of all transferred liquids that are reactive or resinous materials, as defined in § 63.11502(b). (b)(5) If you comply with provisions in an overlapping rule in accordance with § 63.11500, identify the affected CMPU, heat exchange system, and/or wastewater system; provide a list of the specific provisions with which you will comply; and demonstrate that the provisions with which you will comply are at least as stringent as the otherwise applicable requirements, including monitoring, recordkeeping, and reporting requirements, in this subpart VVVVVV.(c) Recordkeeping. You must maintain files of all information required by this subpart for at least 5 years following the date of each occurrence according to the requirements in § 63.10(b)(1). If you are subject, you must comply with the recordkeeping and reporting requirements of § 63.10(b)(2)(iii) and (vi) through (xiv), and the applicable requirements specified in paragraphs (c)(1) through (8) of this section. (c)(1) For each CMPU subject to this subpart, you must keep the records specified in paragraphs (c)(1)(i) through (viii) of this section. (c)(1)(i) Records of management practice inspections, repairs, and reasons for any delay of repair, as specified in § 63.11495(a)(5). (c)(1)(iii) If batch process vent emissions are less than 10,000 lb/yr for a CMPU, records of batch process vent emission calculations, as specified in § 63.11496(a)(1), the number of batches operated each month, as specified in § 63.11496(a)(3), and any updated emissions calculations, as specified in § 63.11496(a)(3). Alternatively, keep records of the worst-case processes or organic HAP usage, as specified in § 63.11496(a)(2) and (4), respectively. (c)(1)(viii) Records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.11495(d), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.(c)(2) For batch process vents subject to Table 2 to this subpart and continuous process vents subject to Table 3 to this subpart, you must keep records specified in paragraphs (c)(2)(i) or (ii) of this section, as applicable. (c)(2)(i) If you route emissions to a control device other than a flare, keep records of performance tests, if applicable, as specified in § 63.998(a)(2)(ii) and (4), keep records of the monitoring system and the monitored parameters, as specified in § 63.998(b) and (c), and keep records of the closed-vent system, as specified in § 63.998(d)(1). If you use a recovery device to maintain the TRE above 1.0 for a continuous process vent, keep records of monitoring parameters during the TRE index value determination, as specified in § 63.998(a)(3). (c)(4)(vi) For periods of planned routine maintenance of a control device, keep records of the day and time at which each maintenance period begins and ends, and keep records of the type of maintenance performed, as specified in § 63.11497(b)(3).(c)(5) For each wastewater stream subject to Item 2 in Table 6 to this subpart, keep records of the wastewater stream identification and the disposition of the organic phase(s), as specified in Item 2 to Table 6 to this subpart.(c)(7) You must keep a record of all transferred liquids that are reactive or resinous materials, as defined in § 63.11502(b), and not included in the NOCS.(d) Semiannual Compliance Reports. You must submit semiannual compliance reports that contain the information specified in paragraphs (d)(1) through (7) of this section, as applicable. Reports are required only for semiannual periods during which you experienced any of the events described in paragraphs (d)(1) through (8) of this section. (d)(1) Deviations. You must clearly identify any deviation from the requirements of this subpart.(d)(3) Delay of leak repair. You must provide the following information for each delay of leak repair beyond 15 days for any process equipment, storage tank, surge control vessel, bottoms receiver, and each delay of leak repair beyond 45 days for any heat exchange system with a cooling water flow rate less than 8,000 gal/min: information on the date the leak was identified, the reason for the delay in repair, and the date the leak was repaired. (d)(4) Process change. You must report each process change that affects a compliance determination and submit a new certification of compliance with the applicable requirements in accordance with the procedures specified in paragraph (b) of this section. (d)(5) Data for the alternative standard. If you comply with the alternative standard, as specified in Table 2 to this subpart or Table 3 to this subpart, report the information required in § 63.1258(b)(5). (d)(6) Overlapping rule requirements. Report any changes in the overlapping provisions with which you comply. (d)(7) Reactive and resinous materials. Report any transfer of liquids that are reactive or resinous materials, as defined in § 63.11502(b), and not included in the NOCS.(d)(8) Malfunctions. If a malfunction occurred during the reporting period, the report must include the number of instances of malfunctions that caused emissions in excess of a standard. For each malfunction that caused emissions in excess of a standard, the report must include a list of the affected sources or equipment, an estimate of the volume of each regulated pollutant emitted over the standard, and a description of the method used to estimate the emissions. The report must also include a description of actions you took during a malfunction of an affected source to minimize emissions in accordance with § 63.11495(d), including actions taken to correct a malfunction. |

| 1. GENERAL FACILITY WIDE
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| **Condition Number** | **Conditions** |
|  | The owner or operator shall comply with S.C. Regulation 61-62.2, Prohibition of Open Burning. |
|  | The owner or operator shall comply with S.C. Regulation 61-62.3, Air Pollution Episodes. |
|  | The owner or operator shall comply with S.C. Regulation 61-62.4, Hazardous Air Pollution Conditions. |
|  | The owner or operator shall comply with S.C. Regulation 61-62.6, Control of Fugitive Particulate Matter, Section III Control of Fugitive Particulate Matter Statewide. |
|  | The owner or operator shall comply with the standards of performance for asbestos abatement operations pursuant to 40 CFR Part 61.145 and S.C. Regulation 61-86.1, including, but not limited to, requirements governing training, licensing, notification, work practice, cleanup, and disposal. |
|  | The owner or operator shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, Protection of Stratospheric Ozone, Recycling and Emissions Reduction, except as provided for motor vehicle air conditioners (MVACs) in Subpart B. If the owner or operator performs a service on motor vehicles (fleet) that involves ozone-depleting substance refrigerant in MVACs, the owner or operator is subject to all applicable requirements of 40 CFR Part 82, Subpart B, Servicing of MVACs. |
|  | (S.C. Regulation 61-62.70.6(a)(5)) The provisions of this permit are severable, and if any provision of this permit, or application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby. |
|  | (S.C. Regulation 61-62.70.6(a)(6)(i)) The owner or operator must comply with all of the conditions of this permit. Any permit noncompliance constitutes a violation of the S.C. Pollution Control Act and/or the Federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of permit renewal application. |
|  | (S.C. Regulation 61-62.70.6(a)(6)(ii)) It shall not be a defense for an owner or operator in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. |
|  | (S.C. Regulation 61-62.70.6(a)(6)(iii)) The permit may be modified, revoked, reopened and reissued, or terminated for cause by the Department. The filing of a request by the owner or operator for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. |
|  | (S.C. Regulation 61-62.70.6(a)(6)(iv)) The permit does not convey any property rights of any sort, or any exclusive privilege. |
|  | (S.C. Regulation 61-62.70.6(a)(6)(v)) The owner or operator shall furnish to the Department, within a reasonable time, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the owner or operator shall also furnish to the Department copies of records required to be kept by the permit or, for information claimed to be confidential, the owner or operator may furnish such records directly to the Administrator along with a claim of confidentiality. The Department may also request that the owner or operator furnish such records directly to the Administrator along with a claim of confidentiality. |
|  | (S.C. Regulation 61-62.70.6(a)(8)) No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. |
|  | (S.C. Regulation 61-62.70.6(c)(2)) Upon presentation of credentials and other documents as may be required by law, the owner or operator shall allow the Department or an authorized representative to perform the following:1. Enter upon the owner or operator's premises where a Part 70 source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit.
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit.
3. Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
4. As authorized by the Act and/or the S.C. Pollution Control Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.
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|  | (S.C. Regulation 61-62.70.6(a)(1)(ii)) Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be incorporated into the permit and shall be enforceable by the Administrator. |
|  | (S.C. Regulation 61-62.70.6(a)(4)) The owner or operator is prohibited from emissions exceeding any allowances that the source lawfully holds under Title IV of the Act or the regulations promulgated thereunder. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit revision under any other applicable requirement. No limit shall be placed on the number of allowances held by a source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement. Any such allowances shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Act. |
|  | (S.C. Regulation 61-62.70.7(c)(1)(ii)) Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with S.C. Regulation 61-62.70.5(a)(1)(iii), 62.70.5(a)(2)(iv), and 62.70.7(b). In this case, the permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the permit including any permit shield that may be granted pursuant to S.C. Regulation 61-62.70.6(f) shall remain in effect until the renewal permit has been issued or denied. |
|  | (S.C. Regulation 61-62.70.7) Requests for permit modification and amendments shall be submitted on the appropriate Department approved Title V Modification Form(s). |
|  | (S.C. Regulation 61-62.70.6(a)(7)) The owners or operators of Part 70 sources shall pay fees to the Department consistent with the fee schedule approved pursuant to S.C. Regulation 61-62.70.9; and in accordance with S.C. Regulation 61-30, Environmental Protection Fees. Failure to pay applicable fees can be considered grounds for permit revocation. |
|  | (S.C. Regulation 61-62.1, Section III) The owners or operators of Part 70 sources shall complete and submit a new updated emissions inventory consistent with the schedule approved pursuant to S.C. Regulation 61-62.1, Section III. These reports shall be submitted to the Department.This requirement notwithstanding, an emissions inventory may be required at any time in order to determine the compliance status of any facility. |
|  | This permit expressly incorporates insignificant activities. Emissions from insignificant activities shall be included in the emissions inventory submittals as required by S.C. Regulation 61-62.1, Section III(B)(2)(g). |
|  | (S.C. Regulation 61-62.1, Section II(J)(1)(a)) No applicable law, regulation, or standard will be contravened. |
|  | (S.C. Regulation 61-62.1, Section II(J)(1)(e)) Any owner or operator who constructs or operates a source or modification not in accordance with the application submitted pursuant to S.C. Regulation 61-62.1 or with the terms of any approval to construct, or who commences construction after the effective date of S.C. Regulation 61-62.1 without applying for and receiving approval hereunder, shall be subject to enforcement action. |

| 1. GENERAL RECORD KEEPING AND REPORTING
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| **Condition Number** | **Conditions** |
|  | (S.C. Regulation 61-62.1, Section II(J)(1)(g)) A copy of the Department issued construction and/or operating permit must be kept readily available at the facility at all times. The owner or operator shall maintain such operational records; make reports; install, use, and maintain monitoring equipment or methods; sample and analyze emissions or discharges in accordance with prescribed methods at locations, intervals, and procedures as the Department shall prescribe; and provide such other information as the Department reasonably may require. All records required to demonstrate compliance with the limits established under this permit shall be maintained on site for a period of at least five (5) years from the date the record was generated and shall be made available to a Department representative upon request. |
|  | (S.C. Regulation 61-62.70.6(a)(3)(iii)(A)) The owner or operator shall submit reports required in this permit in a timely manner and according to the reporting schedule that has previously been established through the Department’s approved electronic permitting system.All required reports must be certified by a responsible official consistent with S.C. Regulation 61-62.70.5(d). |
|  | (S.C. Regulation 61-62.70.6(a)(3)(iii)) All reports and notifications required under this permit shall be submitted to the Department. |
|  | (S.C. Regulation 61-62.70.6(c)(5)(iv)) All Title V Annual Compliance Certifications shall be sent to the US EPA, Region 4, Air Enforcement Branch and to the Department. These reports can be submitted electronically to EPA through CEDRI. |
|  | (S.C. Regulation 61-62.70.6(a)(3)(ii)) The owner or operator shall comply, where applicable, with the following monitoring/support information collection and retention record keeping requirements:1. Records of required monitoring information shall include the following:
	1. The date, place as defined in the permit, and time of sampling or measurements;
	2. The date(s) analyses were performed;
	3. The company or entity that performed the analyses;
	4. The analytical techniques or methods used;
	5. The results of such analyses; and
	6. The operating conditions as existing at the time of sampling or measurement;
2. Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
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|  | (S.C. Regulation 61-62.1, Section II(J)(1)(c)) For sources not required to have continuous emission monitors, any malfunction of air pollution control equipment or system, process upset, or other equipment failure which results in discharges of air contaminants lasting for one (1) hour or more and which are greater than those discharges described for normal operation in the permit application, shall be reported to the Department within twenty-four (24) hours after the beginning of the occurrence and a written report shall be submitted to the Department within thirty (30) days. The written report shall include, at a minimum, the following:1. The identity of the stack and/or emission point where the excess emissions occurred;
2. The magnitude of excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the excess emissions;
3. The time and duration of excess emissions;
4. The identity of the equipment causing the excess emissions;
5. The nature and cause of such excess emissions;
6. The steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunction;
7. The steps taken to limit the excess emissions; and,
8. Documentation that the air pollution control equipment, process equipment, or processes were at all times maintained and operated, to the maximum extent practicable, in a manner consistent with good practice for minimizing emissions.

The initial twenty-four (24) hour notification should be made to the Department’s local Regional Office.The written report should be sent to the Department. |
|  | (S.C. Regulation 61-62.70.6(c)(5)(iii)) The responsible official shall certify annually, compliance with the conditions of this permit as required under S.C. Regulation 61-62.70.6(c). The compliance certification shall include the following:1. The identification of each term or condition of the permit that is the basis of the certification.
2. The identification of the method(s) or means used by the owner or operator for determining the compliance status with each term and condition of the permit during the certification period.
3. The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in S.C. Regulation 61-62.70.6(c)(5)(iii)(B). The certification shall identify each deviation and take it into account in the compliance certification.
4. Such other facts as the Department may require to determine the compliance status of the source.
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|  | (S.C. Regulation 61-62.1, Section II(M)) Within thirty (30) days of the transfer of ownership/operation of a facility, the current permit holder and prospective new owner or operator shall submit to the Department a written request for transfer of the source operating or construction permits. The written request for transfer of the source operating or construction permit shall include any changes pertaining to the facility name and mailing address; the name, mailing address, and telephone number of the owner or operator for the facility; and any proposed changes to the permitted activities of the source. Transfer of the operating or construction permits will be effective upon written approval by the Department. |

| 1. INSIGNIFICANT ACTIVITIES
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| **Condition Number** | **Conditions** |
|  | The facility may install, remove, and modify insignificant activities as defined in S.C. Regulation 61-62.70.5(c), without revising or reopening the Title V Operating Permit. A list of insignificant activities/exempt sources must be maintained on site, along with any necessary documentation to support the determination that the activity is insignificant and shall be made available to a Department representative upon request. The list shall be submitted with the next renewal application. |

| 1. PERMIT SHIELD
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| **Condition Number** | **Conditions** |
|  | (S.C. Regulation 61-62.70.6(f)) A copy of the "applicability determination" submitted with the Part 70 permit application is included as Applicable and Non-Applicable Federal and State Regulations. With the exception of those listed below, compliance with the terms and conditions of this permit shall be deemed compliance with the applicable requirements specified in Applicable and Non-Applicable Federal and State Regulations as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in the permit. The owner or operator shall also be shielded from the non-applicable requirements specified in Applicable and Non-Applicable Federal and State Regulations. Exceptions to this are stated below in the Permit Shield Exceptions Table. This permit shield does not extend to applicable requirements which are promulgated after permit issuance, unless the permit has been appropriately modified to reflect such new requirements.Nothing in the permit shield or in any Part 70 permit shall alter or affect the provisions of Section 303 of the Act, Emergency Orders of the Clean Air Act; the liability of the owner or operator for any violation of applicable requirements prior to or at the time of permit issuance; the applicable requirements of the Acid Rain Program, consistent with Section 408(a) of the Clean Air Act; or the ability of US EPA to obtain information from a source pursuant to Section 114 of the Clean Air Act. In addition, the permit shield shall not apply to emission units in noncompliance at the time of permit issuance, minor permit modifications (S.C. Regulation 61-62.70.7(e)(2)), group processing of minor permit modifications (S.C. Regulation 61-62.70.7(e)(3)), or operational flexibility (S.C. Regulation 61-62.70.7(e)(5)(i)), except as specified in S.C. Regulation 61-62.70.7(e)(5)(iii). |

| **Permit Shield Exceptions** |
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| SC Regulation 61-62.1 – Definitions and General Requirements |
| SC Regulation 61-62.3 – Air Pollution Episodes |
| SC Regulation 61-62.5, Standard 7 - Prevention of Significant Deterioration |
| SC Regulation 61-62.5, Standard 7.1 - Nonattainment New Source Review |
| SC Regulation 61-62.63 - NESHAPs MACT Standards (Subpart A –HHHHHHH) |
| 40 CFR 61, Subpart M - National Emission Standard for Asbestos |
| 40 CFR 70 – State Operating Permit Programs |
| 40 CFR 82 - Protection of Stratospheric Ozone |

| 1. AMBIENT AIR STANDARDS
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| **Condition Number** | **Conditions** |
|  | (S.C. Regulation 61-62.1, Section II(J)(2)) Air dispersion modeling (or other method) has previously demonstrated that this facility’s operation will not interfere with the attainment and maintenance of any state or federal ambient air standard. Any changes in the parameters used in this demonstration may require a review by the facility to determine continuing compliance with these standards. These potential changes include any decrease in stack height, decrease in stack velocity, increase in stack diameter, decrease in stack exit temperature, increase in building height or building additions, increase in emission rates, decrease in distance between stack and property line, changes in vertical stack orientation, and installation of a rain cap that impedes vertical flow. Parameters that are not required in the determination will not invalidate the demonstration if they are modified. Variations from the input parameters in the demonstration shall not constitute a violation unless the maximum allowable ambient concentrations identified in the standard are exceeded.The owner or operator shall maintain this facility at or below the emission rates used in the most recent air dispersion modeling (or other method) demonstration submitted to and approved by the Department, not to exceed the pollutant limitations of this permit. Should the facility wish to increase the emission rates used in the demonstration, not to exceed the pollutant limitations in the body of this permit, it may do so by submitting a new demonstration for approval. This condition along with the referenced modeling demonstration will also serve to meet the intent of S.C. Regulation 61-62.5, Standard No. 8, Section II(D). This is a State Only enforceable requirement. |

| 1. COMPLIANCE SCHEDULE – RESERVED
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