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South Carolina Department of Health
and Environmental Control

# Part 70 Air Quality Permit

**United States Department of Energy**
**Washington Savannah River Company, LLC - Savannah River Site**
**Environmental Services Section**
**Building 735-B**
**Aiken, SC 29808-0001**

(permit updated 7/3/03, 2/2/04, 8/17/04, 11/17/04, 12/16/04, 3/1/05, 11/22/05, 4/19/06, 10/17/06, 1/8/07, 9/4/07 and 12/11/07)

In accordance with the provisions of the Pollution Control Act, Sections 48-1-50(5) and 48-1-110(a), and the 1976 Code of Laws of South Carolina, as amended, Regulation 61-62, the above named permittee is hereby granted permission to discharge air contaminants into the ambient air. The Bureau of Air Quality (BAQ) authorizes the operation of this facility and its applicable equipment specified herein in accordance with the plans, specifications and other information submitted in the Title V permit application received on March 14, 1996, with subsequent amendments being received on January 15, 1997; July 25, 1997; September 19, 1997; October 24, 1997; November 7, 1997; February 18, 1998; May 14, 1998; July 6, 1998; October 1, 1998; December 6, 1999; December 7, 2000; November 13, 2001 and June 6, 2002.

This permit is subject to and conditioned upon the terms, limitations, standards, and schedules contained in or specified on the 76 pages, with the accompanying attachments, of this permit.

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| **Permit Number:** | **TV-0080-0041** | **Effective Date:** | **April 1, 2003** |
| **Issue Date:** | **February 19, 2003** | **Expiration Date:** | **March 31, 2008** |

**Assistant Bureau Chief**
**Bureau of Air Quality**

| RECORD OF REVISIONS | | | |
|---|---|---|---|
| **Revision Number** | **Final Revision Date** | **Type of Revision** | **Description of Change (Specific Parts, Sections, and Tables Revised or Added)** |
| 1 | 7/3/2003 | AA | Replaced wording of conditions 4.B.18, 4.B.19, 4.B.20, 4.B.22 & 4.B.23 with "VOID" |
| 1 | 7/3/2003 | MM | Made the following changes: **1.** Part 5.0a, Table 5.1: Voided unit ID A-001, Cyclone C-012, Baghouse B681 and unit IDA-012 (moved to Attachment B); **2.** Part 5.0a, Table 5.2: Voided ID C012 & B681; **3.** Part 5.0a, Table 5.3: Put "VOID" in the table header and beside the equipment description; **4.** Removed Part 5.0a, Table 5.11 and renamed Table 5.12 as Table 5.11; **5.** Part 6.0a, Table 6.1: Removed all references to IDs A-001 & A-012 and replaced the wording of condition 6.B.13 with "VOID"; **6.** Part 5.0m, Table 5.1: Voided unit ID M-002; **7.** Part 5.0m, Table 5.2: Placed "VOID" next to the equipment description for equipment ID 588M; **8.** Part 5.0m, Table 5.4 & Part 6.0m, Table 6.1: Removed any reference to unit ID M-002; **9.** Part 5.0n, Table 5.1: Voided unit IDs N-002, N-025, N-026 & N-028; **10.** Part 5.0n, Table 5.3: Placed "VOID" next to the equipment description for equipment ID 420N; **11.** Part 5.0n, Table 5.8: Placed "VOID" next to the equipment description for equipment IDs 925H, 926H & 417N; **12.** Part 5.0n, Table 5.10 & Part 6.0n, Table 6.1: Removed any reference to unit IDs N-002, N-025, N-026 & N-028 and also deleted reference to these units in condition 6.B.5; **13.** Attachment B, Insignificant Activities (A-Area): Inserted ID 85DA (formerly unit ID A-012) into the table as exempt based on emission level. |
| 2 | 9/24/2003 | AA | Made the following changes: **1.** Changed A-Area Insignificant Activities list ID "747-A" to "85FA" (was typo); **2.** Changed diesel fuel usage table at end of G-Area Insignificant Activities list to reflect the 30kW generator as "701-12G" to correspond with the listing for activity 099G shown in the main table listing; **3.** Changed diesel fuel usage table at end of H-Area Insignificant Activities list to reflect the 300kW generator as "234-H" to correspond with the listing for activity 505H shown in the main table listing; **4.** Changed N-Area condition 6.B.5 to make corrections as well as remove previously voided equipment from the permit: (a) GE0026 was assigned a building ID of "SRO 1308" instead of "N/A" (b) GE0004 was assigned a building ID of "SRO 7850" not "SRO 7856" (c) GE0002, GE0006, GE0007, GE0008, GE0019, GE0027, GE0034 & GE0035 were removed from this list because they are no longer in use or on site; **5.** Removed generator 292-H from the diesel fuel usage table at the end of the H-Area Insignificant Activities list; **6.** Removed the duplicate generator listing for building ID 254-7F in the F-Area Insignificant Activities list. |
| 2 | 9/24/2003 | MM | Made the following changes: **1.** As they pertain to the issuance of construction permit #0080-0041-G-CT, the following was changed in G-Area of the main permit: (a) Added new unit ID G-003 to Table 5.1; (b) Changed the installation date of Equipment ID 288G in Table 5.3 to "2/2001**" and added footnote at bottom of table; (c) Removed Equipment ID 287G from Table 5.3; (d) Created new Table 5.4 to describe new equipment associated with new Unit ID G-003; (e) Renumbered Table 5.4 as Table 5.5 and changed unit ID reference from "G-001 & G-002" to "G-001 thru G-003"; (f) Added new row to Table 6.1 to reflect new monitoring associated with new Unit ID G-003; (g) Renumbered condition 6.B.5 as 6.B.8, and added new conditions 6.B.5, 6.B.6 & 6.B.7 that correspond to new Unit ID G-003 information now in Table 6.1; **2.** Removed all reference to Units N-016, N-019 & N-027, to include the following changes: (a) Placed "VOID" next to relevant Unit Descriptions in Table 5.1; (b) Placed "VOID" next to the equipment descriptions for IDs 413N & 416N in Table 5.5; (c) Placed "VOID" next to the equipment description for ID 924H in Table 5.6; (d) Changed the 3rd row of Table 5.10 and 2nd, 4th, and 6th rows Table 6.1 of the Unit ID column from the old designation of "N-003 thru N-024, N-027, N-029 & N-030" to the new designation of "N-003 thru N-015, N-017, N-018, N-020 thru N-024, N-029 & N-030"; (e) Removed rows from the diesel fuel usage table contained within condition 6.B.5, that begin with SRS IDs GE0022, GE0025 & GE0038; **3.** Removed all reference to Unit F-010 to include the following changes: (a) Placed "VOID" next to relevant Unit Description in Table 5.1; (b) Placed "VOID" next to the equipment descriptions for ID 17JF in Table 5.9; (c) Changed the 3rd row of Table 5.10 from the old designation of "F-005 & F-006, F-008 thru F-010" to the new designation of "F-005 & F-006, F-008 & F-009"; (d) Changed the 4th row of Table 6.1 of the Unit ID column from the old designation of "F-004 & F-008 thru F-010" to the new designation of "F-004, F-008 & F-009"; (e) Removed "& F-010" from the 5th row of Table 6.1 of the Unit ID column; (f) Removed row from the diesel fuel usage table contained within condition 6.B.8, that begins with SRS ID SE0023. |
| 3 | 2/2/04 | SM **"Non-Area" Changes** | **1.** Changed the 3rd line of the mailing address on page 1 from "Environmental Protection Department" to "Environmental Support Section"; **2.** Changed 2nd line of billing address in Part 1.0(D) from "Environmental Protection Department" to "Environmental Support Section"; **3.** Changed the wording of condition 4.B.9 as follows: (a) "Category I sources" was changed to "Potential Impact Category (PIC) 1 & 2 sources", and (b) removed from the listing of sources from this condition ALL EXCEPT the following: H-Canyon, HB Line, F-Canyon & FB Line; **4.** Changed the word "VOID" in conditions 4.B.18, 4.B.19, 4.B.20, 4.B.22 & 4.B.23 to "<Void>"; **5.** Throughout all "Area" sections of the main permit, as well as in Attachment B, changed the formatting of all appropriate tables to remove vertical merging. |

| RECORD OF REVISIONS | | | |
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| **Revision Number** | **Final Revision Date** | **Type of Revision** | **Description of Change (Specific Parts, Sections, and Tables Revised or Added)** |
| 3 | 2/2/04 | SM **A-Area Changes** | **1.** In Table 5.1, added "VOID" before the unit descriptions for Unit IDs A-002, A-003 & A-004 and also before the control device descriptions for the same Unit IDs; **2.** Removed the "**" footnote below Table 5.1, as it was no longer necessary; **3.** In table 5.2, deleted all information rows beginning the following control device IDs: (a) VOID-C012; (b) VOID-B681; (c) H273 thru H337; (d) H352; (e) H353 and H354; (f) H760 and H761; (g) H339; (h) H341; (i) H344; (j) H342 and H345; (k) H347 and H348; (l) H349, H350 and H355 thru H364; (m) H440 thru H448; (n) H449; (o) H450; (p) H455 thru H457, H464 and H465; (q) H482 thru H485; (r) H486; (s) H487 thru 489; (t) H491 thru H493, H495 and H496; (u) H662, H665 and H667; (v) H681, H683, H686 and H688; (w) H702 and H704; (x) H721; (y) H723, H725, H727, H729, H731, H733, H735, H737, and H739; (z) P027 and P037; (aa) P047 and P051; (bb) P052; (cc) P054; (dd) P104 thru P110, P115 and P116; (ee) N004; (ff) H370; (gg) H371 and H372; (hh) H373; (ii) H374; (jj) H375 and H436, and; (kk) P129 thru P148; **4.** Changed Tables 5.3, 5.4, 5.5 & 5.6 unit ID descriptions to "<Void>" and removed the respective tables below them; **5.** Added back previously removed Table 5.11 header and changed the description to "<Void>"; **6.** Renumbered Table 5.11 to Table 5.12, and removed the last line of this table which previously referenced IDs A-002 thru A-004; **7.** Removed all relevant monitoring and reporting requirements for Unit IDs A-002 thru A-004 from Table 6.1; **8.** Removed the wording of conditions 6.B.1 through 6.B.6 and replaced each condition with the word "<Void>"; **9.** Changed the word "VOID" in previous condition 6.B.13 to the word "<Void>"; **10.** Added the units previously referenced as A-002, A-003 and A-004 to the A-Area Insignificant Activities list, with their basis for exemption being "R&D." |
| 3 | 2/2/04 | SM **F-Area Changes** | **1.** In Table 5.1, added "VOID" before the unit descriptions for Unit ID F-001and also before the control device descriptions for the same Unit ID; **2.** In table 5.2, deleted all information rows beginning the following control device IDs: (a) H998; (b) H999; (c) P001; (d) P002; (e) P003; (f) P004; **3.** Changed Table 5.3 unit ID description to "<Void>" and removed the table below the header; **4.** Changed 1st row of Table 5.10 of the Unit ID column from "F-001 thru F-003" to "F-002 & F-003"; **5.** Changed 1st and 2nd rows of Table 6.1 of the Unit ID column from "F-001 thru F-003" to "F-002 & F-003." |
| 3 | 2/2/04 | SM **H-Area Changes** | **1.** In Table 5.1, added "VOID" before the unit descriptions for Unit IDs H-005, H-006, H-007, H-008, H-009 & H-013 and also before the control device descriptions for the same Unit IDs (except ID H-008, which had no control device; **2.** In table 5.2, deleted all information rows beginning the following control device IDs: (a) D026; (b) H775; (c) H776; (d) P101; (e) P102; (f) D032; (g) D044; (h) P058; (i) P059; (j) P060; **3.** Changed Tables 5.6, 5.7, 5.8, 5.9, 5.10 & 5.14 unit ID descriptions to "<Void>" and removed the respective tables below them; **4.** Changed 1st row of Table 5.20 of the Unit ID column from "H-001 thru H-002, H-005 thru H-010, H-012 & H-013" to "H-001, H-002, H-010 & H-012"; **5.** Removed the ID reference of "H-005 thru H-008" from the 2nd row of Table 5.20 of the Unit ID column; **6.** Changed 3rd row of Table 5.20 of the Unit ID column from "H-003 thru H-004, H-009, H-011 thru H-013, H-019 thru H-021" to "H-003 thru H-004, H-011, H-012, H-019 thru H-021"; **7.** Changed 1st and 3rd rows of Table 6.1 of the Unit ID column from "H-001, H-002, H-009, H-010^ & H-013" to "H-001, H-002, & H-010^"; **8.** Removed the 2nd row of Table 6.1, as H-005 thru H-008 are now VOID; **9.** Removed the 8th row of Table 6.1, as Unit ID H-009 is now VOID; **10.** Removed the row containing the performance testing requirement for Unit ID H-009 in Table 6.1, as this Unit ID is now VOID; **11.** Removed the wording of the following conditions and replaced each condition with the word "<Void>": 6.B.8, 6.B.37 & 6.B.38; **12.** Removed ID 54DH from the H-Area Insignificant Activities list; **13.** Added ID 34BH, the 242-25H RHLWE Test Cell to the Insignificant Activities list with the basis for exemption being "Emission Level"; **14.** Changed the size of ID 50FH from 7,600,000 gallons to 562 gallons. |
| 3 | 2/2/04 | SM **N-Area Change** | **1.** Changed Table 5.8 unit ID description to "<Void>" and removed the table below it. |
| 3 | 2/2/04 | SM **S-Area Changes** | **1.** In Table 5.1, added "VOID" before the HEPA Filters and the Sand Filter; **2.** In Table 5.2, deleted all information rows beginning the following control device IDs: (a) H016; (b) H965; (c) N001; **3.** In Table 5.3, removed all control device IDs for Equipment ID 270S and replaced with "N/A"; **4.** Added "* N/A=Not Applicable" just below Table 5.3; **5.** In Table 6.1, removed the rows in the table for all monitoring and reporting requirements for S-001 with the exception of the "Condenser Performance" requirement; **6.** Removed the "**" footnote below Table 6.1, as it was no longer necessary; **7.** Removed the wording of conditions 6.B.1 through 6.B.9 and replaced each condition with the word "<Void>"; **8.** Added the following IDs with accompanying descriptions to the S-Area Insignificant Activities list: 278S, 488S, 085S, 129S, 286S, 287S, 289S & 295S (all had a basis for exemption of "Emission Level"). |

| RECORD OF REVISIONS | | | |
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| **Revision Number** | **Final Revision Date** | **Type of Revision** | **Description of Change (Specific Parts, Sections, and Tables Revised or Added)** |
| 3 | 2/2/04 | SM **Attachment A Changes** | Facility remodeled and, where the emission rates were higher than previously indicated, successfully continued to demonstrate compliance with Standards 2 & 8, respectively (in accordance with condition 4.B.2), thus triggering the following administrative changes were incorporated into Attachment A: **1.** The value for NOx for emission point S-DP0007 was changed from "13.600" to "23.635"; **2.** The value for Total PM for emission point S-DP0007 was changed from "0.000" to "0.002"; **3.** The value for Mercury for emission point S-DP0007 was changed from "0.0200" to "0.0168"; **4.** The value for Nitric Acid for emission point S-DP0007 was changed from "0.0603" to "0.0569"; **5.** The value for Nitric Acid for emission point S-DP0009 was changed from "0.1043" to "0.0057." |
| 3 | 2/2/04 | Group MM | Several MM's & AA's were grouped together affecting the following changes to the permit: **1.** In part 5.0f, Table 5.1, Unit IDs F-008 & F-009 were changed to "VOID", as they are now Insignificant Activities; **2.** Removed Table 5.9 from Part 5.0f, and changed the description in the heading of the table to "<Void>"; **3.** Removed the "**" footnote below Table 5.9 in Part 5.0f; **4.** Removed all references to Unit IDs F-008 & F-009 from Table 5.10 in Part 5.0f; **5.** Removed fuel oil usage and visible emissions requirements for units F-008 & F-009 from Table 6.1 of Part 5.0f; **6.** Removed reference to Unit IDs F-008 & F-009 from condition 6.B.8 in Part 6.0f; **7.** In Part 5.0g(D), changed the reference of Table 5.4 to Table 5.5; **8.** In Part 6.0g, condition 6.B.7, changed the referenced condition from "condition 9" to "condition 6"; **9.** In Part 5.0n, Table 5.1, changed Unit IDs N-004, N-005 & N-011 to "VOID"; **10.** Added "VOID" to the equipment descriptions of the following tables/row numbers: Table 5.3 - Row 3, Table 5.4 - Rows 1 & 7; **11.** In Table 5.10, 4th row, changed the Unit IDs referenced from "N-003 thru N-015…" to "N-003, N-006 thru N-010, N-012 thru N-015…"; **12.** In Table 6.1, Rows 2, 4 & 6, changed the Unit IDs referenced from "N-003 thru N-015…" to "N-003, N-006 thru N-010, N-012 thru N-015…"; **13.** Removed reference to Unit IDs N-004, N-005 & N-011 from condition 6.B.5 in Part 6.0n; **14.** On the A-Area Insignificant Activities list, removed ID 006A, as it has been removed from service, and added the following IDs to the bottom of the list: 04GA, 95FA, 96FA & 97FA; **15.** Removed reference to ID 006A from the A-Area Insignificant Activities fuel usage list; **16.** On the B-Area Insignificant Activities list, removed ID 107B, as it has been removed from service, and also removed reference to this ID from the fuel usage list; **17.** On the D-Area Insignificant Activities list, removed ID 181D, as it has been removed from service, and entirely removed the fuel usage table from below the list, as there are no longer any exempt diesel units in D-Area; **18.** On the F-Area Insignificant Activities list, removed IDs 166F & 311F, as they have been removed from service, and added the following IDs to the bottom of the list: 851F & 861F (formerly Unit IDs F-008 & F-009); **19.** Removed reference to IDs 166F & 311F from the F-Area Insignificant Activities fuel usage list and added references to IDs 851F & 861F; **20.** On the H-Area Insignificant Activities list, removed IDs 355H, 15EH & 14EH, as they have been removed from service, and added ID 57FH to the bottom of the list; **21.** Removed reference to IDs 355H, 15EH & 14EH from the H-Area Insignificant Activities fuel usage list and added references to ID 57FH; **22.** On the N-Area Insignificant Activities list, removed IDs 320N, 375N, 25CN & 24CN, as they have been removed from service; **23.** On the A-Area Insignificant Activities list, removed ID 64FA, as it has been removed from service; **24.** On the D-Area Insignificant Activities list, removed ID 197D, as it has been removed from service; **25.** On the F-Area Insignificant Activities list, removed IDs 08EF & 66DF, as they have been removed from service; **26.** Made the following administrative corrections as they pertain to Attachment A: a. Delete VOC emission rate for stack H-TP0001; b. Change VOC emission rate for H-TP0025 from 0.617 lb/hr to 0.827 lb/hr; c. Change stack reference for NOx from H-TP0001 to H-TP0025; d. Change stack reference for PM-10 from H-TP0001 to H-TP0025; e. Change stack reference for TSP from H-TP0001 to H-TP0025; f. Change stack reference for Nickel from H-TP0001 to H-TP0025; **27.** In Attachment B, changed source descriptions for Unit ID 849H & 871H; **28.** Consolidated motor pool sources and made changes in accordance with operational flexibility request dated 11/17/2003. |

**RECORD OF REVISIONS**

| Revision Number | Final Revision Date | Type of Revision | Description of Change (Specific Parts, Sections, and Tables Revised or Added) |
|---|---|---|---|
| 4 | 8/17/04 | Group MM | Part 5.0a, Table 5.1 – Void IDs A-010 & A-011 Part 5.0a, Table 5.10 – Void Equipment IDs 574A & 575A Part 5.0a, Table 5.12 – Removed all references to IDs A-010 & A-011 Part 6.0a, Table 6.1 – Removed all references to IDs A-010 & A-011 Part 6.0a, Condition 12 – Removed condition and listed <Void><br>Part 5.0b, Table 5.1 – Void IDs B-004 & B-005 Part 5.0b, Table 5.3 – Void Equipment IDs 114B & 115B Part 5.0b, Table 5.4 – Removed all references to IDs B-004 & B-005 Part 5.0b, Condition 3 – Removed condition and listed <Void> Part 6.0b, Table 6.1 – Removed all references to IDs B-004 & B-005 NSPS Kb requirement. Part 6.0b, Condition 2 – Removed condition and listed <Void><br>Part 6.0c, Condition 2 – Changed the approved method in determining the VOC emissions in unit C-001 to a Modified Method 18.<br>Part 5.0f, Table 5.1 – Void IDs F-004, F-005, & F-006 Part 5.0f, Table 5.6 Void equipment ID 911F Part 5.0f, Table 5.7 – Void equipment IDs 801F & 811F Part 5.0f, Table 5.10 – Removed all references to IDs F-004, F-005, & F-006 Part 5.0f, Condition 2 – Removed condition and listed <Void> Part 6.0f, Table 6.1 – Removed all references to IDs F-004, F-005, & F-006 Part 6.0f, Conditions 7 & 8 – Removed conditions and listed <Void><br>Part 5.0g, Table 5.1 – Void ID G-001 Part 5.0g, Table 5.2 – Void equipment ID 169G Part 5.0g, Table 5.5 – Removed all references to ID G-001 Part 6.0g, Table 6.1 – Removed all references to ID G-001 Part 6.0g, Condition 1 – Removed condition and listed <reserve> Part 6.0g, Conditions 3 & 6 – Changed the approved method in determining the VOC emissions in unit G-002 & G-003 to a Modified Method 18.<br>Part 5.0h, Table 5.1 – Void IDs H-003, H-004, H-011, H-012, H-014, & H-021 Part 5.0h, Table 5.2 – Void control device P055 Part 5.0h, Table 5.5 – Void equipment IDs 86EH & 88EH Part 5.0h, Table 5.12 – Void equipment ID 87DH Part 5.0h Table 5.13 – Void equipment IDs 72DH, 73DH, 74DH, & 75DH Part 5.0h, Table 5.15 – Void equipment ID 618H Part 5.0h, Table 5.19 – Void equipment ID 56FH Part 5.0h, Table 5.20 – Removed all references to IDs H-003, H-004, H-011, H-012, H-014, & H-021 Part 6.0h, Table 6.1 – Removed all references to IDs H-003, H-004, H-011, H-012, H-014, & H-021 Part 6.0h Conditions 7 – Removed condition and listed <Void><br>Part 5.0k Table 5.1 – Void IDs K-003 & K-004 Part 5.0k, Table 5.2 – Void Equipment IDs 238K & 239K Part 5.0k, Table 5.3 – Removed all references to IDs K-003 & K-004 Part 5.0k, Condition 3 – Removed condition and listed <Void> Part 6.0k, Table 6. 1 – Removed all references to IDs K-003 & K-004 Part 6.0k, Condition 2 – Removed condition and listed <Void><br>Part 5.0m, Table 5.1 – Void IDs. M-001 & M-004 Part 5.0m, Table 5.2 – Void Equipment IDs 587M & 590M Part 5.0m, Table 5.3 – Added Equipment IDs 611M & 612M Part 5.0m, Table 5.4 – Removed all references to IDs M-001 & M-004 Part 6.0m, Table 6.1 – Removed all references to IDs M-001 & M-004 Part 6.0m, Condition 1 – Removed IDs M-001 & M-004 from the condition requirements Part 6.0m, Conditions 2 & 5 – Changed the approved method in determining the VOC emissions in unit M-003, M-005, M-006, & M-007 to a Modified Method.<br>Attachment B (A Area) – Void the following IDs: 160A, 161A, 162A, & 76FA and added 574A & 574B along with their respective fuel usage limit.<br>Attachment B (B Area) – Added equipment IDs 114B & 115B<br>Attachment B (F Area) – Added equipment IDs 801F, 811F, & 911F (along with 911F'sr respective fuel usage limit)<br>Attachment B (G Area) – Void the following IDs: 094G, 103G, 088G, & 308G and added 169G along with it's respective fuel usage limit<br>Attachment B (H Area) – Added equipment IDs 86EH, 88EH, 87DH, 72DH, 73DH, 74DH, 75DH, 618H, & 56FH (along with their respective fuel usage limit)<br>Attachment B (K Area) – Added equipment IDs 238K & 239K |
| 4 | 8/17/04 | AA | Part 6.0a, Condition 11 – Removed condition since it is no longer applicable to any IDs listed in A Area Part 5.0l, Table 5.3 – Correct typographical error listing control device as N/A instead of D068 & P128 Part 6.0n, Table 6.1 – Correct typographical error on condition sited from 6.B.4 to 6.B.3 Attachment A – Updated modeled emission rates Attachment B – Correct typographical error on ID 150H from 245-H to 211-H |

| RECORD OF REVISIONS | | | |
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| **Revision Number** | **Final Revision Date** | **Type of Revision** | **Description of Change (Specific Parts, Sections, and Tables Revised or Added)** |
| 5 | 11/17/04 | Group MM | Part 5.0c, Table 5.1 – Void ID C-001 Table 5.2 – Void equipment ID 224C Table 5.3 - Removed all references to ID C-001 Condition 1 – Removed condition and listed <Void><br>Part 5.0f, Table 5.5 – Void equipment IDs 02EF, 04FE, 07, EF, 38GF, 05, EF, 06EF, & 03EF<br>Part 5.0g, Table 5.1 – Void IDs G-002 & G-003 and add G-004 Table 5.3 – Void equipment 288G & 289G Table 5.4 – Void equipment 312G Table 5.5 – Add ID G-004 & associated equipment Table 5.6 – Renamed table number, removed all references to IDs G-002 & G-003, and added G-004. Condition 1 – Removed all references to IDs G-002 & G-003, and added G-004<br>Part 5.0l, Tables 5.1, 5.2, & 5.3 – Void IDs L-001, D068, P128, & 193L Table 5.4 – Remove emission limitations to Unit ID L-001 and corresponding conditions<br>Part 5.0m, Table 5.1 – Void ID M-003 Table 5.2 – Void equipment ID 589M Table 5.4 – Remove emission limitations to Unit ID M-003 and corresponding conditions<br>Part 6.0c, Table 6.1 – Removed all references to ID C-001 Conditions – Removed conditions and listed <reserve><br>Part 6.0g, Table 6.1 – Removed all references to IDs G-002 & G-003, and added G-004's monitoring and reporting Conditions – Removed all conditions that applied to IDs G-002 & G-003 (2-8), and added G-004's conditions (1-6)<br>Part 6.0l, Table 6.1 – Remove monitoring and reporting requirements for Unit ID L-001 and corresponding conditions<br>Part 6.0m, Table 6.1 – Remove monitoring and reporting requirements for Unit ID M-003 and corresponding conditions<br>Attachment B (A Area) – Add 781-A Engineered Equipment & Systems Building Laboratory<br>Attachment B (A Area) – Void IDs 775A, 033A, 72FA, 73FA, & 85DA<br>Attachment B (F Area) – Void IDs 422F, 165F, 87FF, 62EF, 67CF, & 52DF<br>Attachment B (H Area) – Void equipment IDs 68DH, 67DH, 80DH, 81DH, 82DH, 26AH, 241H, 612H, 457H, 624H, 18DH, & 274H<br>Attachment B (N Area) – Void equipment IDs 091N, 321N, 262N, 270N, 369N, 236S, 527N, 528N, 529N, 530N, 532N, 533N, 520N, 56CN, 60CN, 91BN, 477N, 478N, 507N, 98BN, 04CN, 05CN, 06CN, 11CN, 98CN, 283N, 286N, 292N, 291N, 493N, 95CN, 298N, 300N, 974N, 91CN, 437N, 295N, 203N, & 369N<br>Attachment B (S Area) – Void IDs 221S & 262S |
| 5 | 11/17/04 | AA | Attachment B (E Area) – Changed ID 150E to 152E (F Area) – Remove IDs 80FF & 79FF (tanks do not exists) and changed IDs 851F to 85IF and 861F to 86IF (G Area) – Changed ID 145G to 245G (H Area) – Changed IDs 04AH (619-H Underground Diesel Fuel Tank) to 61EH (619-H Emergency Diesel Tank) & 512H to 79DH (N Area) – Changed IDs SH014 to SH14 & one of the 525Ns to 524N (S Area) – Removed ID 129S (221-S Vitrification Process Formic Acid Solution Tank) listed twice & changed 259S to Chamber #1 & #2. |
| 6 | 12/16/04 | AA | Condition g6.B.1 & g6.B.2 were updated to match c/p G-CU-R1. Condition g6.B.3 was changed so the facility will not have to send in the same approved sampling protocol each time a unit goes on line |
| 7 | 3/1/05 | MM | Part 1.0 – Environmental Contact change.<br>Part 5.0f – Void the following equipment: 66AF, 84CF, 82CF, 81CF, 74CF, 43CF, 42CF, 41CF, 80CF, 83GF, 84GF, 85GF, & 86GF.<br>Attachment B (H Area) – Add a portable 200-H Emergency Diesel Generator #2 (900 kW & < 250 hr/yr) [12GH] with a fuel limit of 16,900 gallons.<br>Attachment B – (F Area) – Void the following equipment: 08CF, 09CF, 51EF, 573F, 63EF, 65CF, 66CF, 67EF, 69EF, 744F, 745F, 746F, & 908F. |
| 8. | 11/22/05 | SM | Condition 4.B.25 From:<br>… To ensure compliance with the annual consumption limit specified below, SRS must refuel each unit at least once per calendar year during the last quarter of each year. Fuel oil sulfur content for these fuels shall be less than or equal to 0.5% percent by weight. Acceptable fuel oil certification can be ensured by following Department guidance entitled "Guidance for Fuel Oil Certifications" issued on May 19, 2000 and …<br>To:<br>... To ensure compliance with the annual consumption limit specified below, SRS must refuel each unit at least once during the annual permit reporting year, or for those units with infrequent or minimal annual operations, the unit must be refueled when the tank level decreases to below 75%, as determined from an appropriate measurement device, e.g., installed tank level gauge, sight glass, float gauge, or an incremented dip stick. For any unit whose tank level did not decrease below 75% and was not refueled during any given 12 month running reporting period, the facility operator must report the approximate tank level in percent (75% to 100%) biannually in September and March. Fuel oil sulfur content for these fuels shall be less than or equal to 0.5% percent by weight. Acceptable fuel oil certification can be ensured by following Department guidance entitled "Guidance for Fuel Oil Certifications" issued on August 12, 2004 and … |

**RECORD OF REVISIONS**

| Revision Number | Final Revision Date | Type of Revision | Description of Change (Specific Parts, Sections, and Tables Revised or Added) |
|---|---|---|---|
| 8. | 11/22/05 | MM | F-Area<br>Voided out Unit F-007 from Tables 5.1, 5.8 & 5.10 (Equipment 87GF-Nitric Acid storage Tank 35)<br>G-Area<br>Void out Insignificant Activity 053G, 701-6G Diesel Generator<br>Add Insignificant Activity 327G, 701-20G Emergency Diesel Generator<br>Add installation date to equipment ID 312G.<br>H-Area<br>Add Insignificant Activity 58FH, 254-21H Diesel Fuel Tank<br>N-Area<br>Table 5.1 – Voided out all IDs except ID N-001 & N-020 and added N-031<br>Voided out all equipment in Tables 5.3, 5.4, 5.5, 5.7, & 5.9 and added Table 5.10<br>Updated Table 6.1 to Reflect the Changes in N-Area Listed Above<br>Add Attachment D to list out the Diesel Equipment.<br>Updated Condition N6.B.5 |
| 8 | 11/22/05 | AA | Updated condition 4.B.5. |
| 8. | 11/22/05 | AA | Updated Contact Information /Billing Information<br>Removed VOID from Attachment B Insignificant Activity "786-A Chemical Processing Room Walk-In Chemical Hood" – DHEC ID 72FA.<br>Removed VOID from Attachment B Insignificant Activity "786-A Chemical Processing Room Chemical Hood" – DHEC ID 73FA<br>Changed Attachment B DHEC ID 781-A for Engineered Equipment & Systems Building & Laboratory to 27GA. (Two ID 781As currently exist in error)<br>Changed Attachment B DHEC ID 849H for "234-7H Metallography Hood" to 10GH<br>Changed Attachment B DHEC ID 871H for "234-7H Cutting Hood" to 11GH<br>Deleted one of the VOID DHEC ID 369N in Attachment B<br>Updated Attachment A Rates for the DUS Facility. |
| 8. | 11/22/05 | MM | VOIDED from Area F - EU F-002 (Table 5.4): 83CF, 48CF, 47CF, 46CF, 45CF, 99CF, 68CF, 76CF<br>VOIDED from Attachment B – Area A Insignificant Activities: 700A<br>VOIDED from Attachment B – Area C Insignificant Activities: 223C, 214C, 218C, 219C, 221C, 222C, 226C<br>VOIDED from Attachment B – Area F Insignificant Activities: 55HF, 56HF, 57HF, 58HF, 68EF, 86FF<br>VOIDED from Attachment B – Area H Insignificant Activities: 27AH, 69DH, 70BH<br>VOIDED from Attachment B – Area M Insignificant Activities: 307M |
| 9. | 4/19/06 | AA | Name Change |
| 9. | 4/19/06 | MM | Updated Attachment B for N-Area: Portable Diesel Equipment<br>Updated Attachment B for A-Area: VOIDED 54FA, 55FA, 56FA, 57FA, 58FA, 59FA, 60FA, 61FA<br>62Fa, 63FA<br>Updated Attachment B for A-Area: Added 39GA<br>Updated Attachment B for F-Area: VOIDED 379F, 380F<br>Updated Table 5.5 G-Area: Added CMP Stripper to Emission Unit G-004 & Condition g6.B.2<br>Updated Attachment B for L-Area: VOIDED 118L |
| 10. | 10/17/06 | MM | A-Area – Voided EU A-009 & Associated References & Conditions<br>G-Area – Updated Installation Date for 321G in Table 5.5 – EU G-004, Voided Insignificant Activity 049G from G-Area Attachment B, Added Insignificant Activity 234G to G-Area Attachment B<br>H-Area - Voided EU H-010 & Associated References & Conditions, Voided Insignificant Activities 84DH, 85DH, 86DH, 87DH, 88DH, 89DH, 90DH, 909H and 910H from H-Area Attachment B<br>K-Area – Added Insignificant Activity 291K to K-Area Attachment B<br>N-Area – Voided 53DN from EU N-031 List (Attachment D)<br>Z-Area – Updated Table 5.1 – EU – Z-001 & Moved 052Z & Associated Baghouse B011 from Insignificant Activities List to Emission Unit Equipment, Ungrouped Insignificant Activities 089Z, 091Z, 092Z, and 093Z in Z-Area Attachment B |

**RECORD OF REVISIONS**

| Revision Number | Final Revision Date | Type of Revision | Description of Change (Specific Parts, Sections, and Tables Revised or Added) |
|---|---|---|---|
| 11. | 1/8/07 | MM | Updated Table 5.1 from F-Area: VOIDED Control Device N006 from EU F-002; VOIDED EU F-003 and Control Device IDs H709, H710, H783 and N006<br>VOIDED from Table 5.2 F-Area: Control Device IDs N006, H709, H710, H783<br>VOIDED from Table 5.4 F-Area EU F-002: Equipment IDs 44CF, 78CF, and 75CF<br>VOIDED Table 5.5 F-Area EU-F-003<br>Updated Part 5.0f, Section D, Table 5.10: Removed reference to Unit ID F-003<br>Updated Part 6.0f, Section A, Table 6.1: Removed reference to Unit ID F-003<br>Updated Part 6.0f, Section B: Corrected typographical errors in condition numbers, changed from f5.E.1 through f5.E.9 to f6.B.1 through f6.B.9<br>Updated Part 5.0 and 6.0 L-Area: Corrected typographical errors in section numbers, changed from 5.0e and 6.0e to 5.0l and 6.0l to reflect proper area designation<br>VOIDED from Attachment B – F-Area Insignificant Activities: ID 743F<br>VOIDED from Attachment D – N-Area Mobile Diesel Equipment Pool: Equipment ID 412N and Equipment ID 2130 |
| 12 | 9/4/07 | Group MM | VOIDED from Attachment B – N-Area Insignificant Activities: ID 105N<br>Removed from Attachment B – A-Area Insignificant Activities: ID 39GA<br>Relocated ID 39AG from Attachment B to Attachment D. |
| 12 | 9/4/07 | AA | Condition 4.B.26 – Changed the reporting address to the Division Director of Air Toxics, Emissions Inventory and Modeling.<br>Condition f6.B.9 – Changed the reporting address to the Division Director of Air Toxics, Emissions Inventory and Modeling.<br>Condition h6.B.36 – Changed the reporting address to the Division Director of Air Toxics, Emissions Inventory and Modeling. |
| 13 | 12/11/07 | Group MM | VOIDED from Table 5.1 N-Area: Unit ID N-020<br>VOIDED Table 5.6, N-Area<br>Updated Part 5.0n, Section D, Table 5.11 – Removed references to Unit ID N-020<br>Condition n5.E.2 – Removed reference to Unit ID N-020<br>Updated Part 6.0n, Section A, Table 6.1 – Removed references to Unit ID N-020<br>Condition n6.B.2 – Voided condition as equipment as been removed<br>Condition n6.B.5 – Removed reference to GE0026 (which is Unit ID N-020)<br>VOIDED from Attachment B – D-Area Insignificant Activities: ID 089D<br>VOIDED from Attachment B – F-Area Insignificant Activities: ID 394F |

**AA** = Administrative Amendment **MM** = Minor Modification **SM** = Significant Modification

Send copies of revisions to Permit File, Main File, Regional EQC Office, US EPA & Facility Contact.

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* **AREA-SPECIFIC**

# PART 1.0 GENERAL INFORMATION

## A. APPLICABLE PERMIT DATES

| | |
|---|---|
| ISSUE DATE | : February 19, 2003 |
| EFFECTIVE DATE | : April 1, 2003 |
| EXPIRATION DATE | : March 31, 2008 |
| RENEWAL APPLICATION DUE | : September 30, 2007 |

## B. FACILITY INFORMATION

| | |
|---|---|
| ENVIRONMENTAL CONTACT | : Mr. P. C. Carroll |
| CONTACT TELEPHONE NUMBER | : (803) 952-9347 |
| INTERNET E-MAIL ADDRESS | : paul.carroll@srs.gov |
| FACILITY LOCATION | : SC Highway 19, about 20 miles South of Aiken |
| COUNTY | : Aiken, Barnwell, and Allendale |
| SIC CODE(S) | : 2819 |
| AFS CODE | : 4500300041 |

## C. FACILITY ADDRESS

| | |
|---|---|
| FACILITY NAME | : Savannah River Site<br>c/o Mr. P.C. Carroll |
| ADDRESS | : Building 735-B |
| CITY, STATE, ZIP | : Aiken, SC 29808-0001 |

## D. FACILITY BILLING ADDRESS

| | |
|---|---|
| FACILITY BILLING NAME | : Washington Savannah River Company, LLC<br>Environmental Permitting and Monitoring<br>Environmental Services Section<br>c/o Mr. P. C. Carroll |
| ADDRESS | : Building 735-B |
| CITY, STATE, ZIP | : Aiken, SC 29808-0001 |

## PART 2.0 APPLICABILITY [SC Regulation 61-62.70.3(a)]

The following sources are subject to permitting requirements of Part 70:

1. Any major source;

2. Any source, including an area source, subject to a standard, limitation, or other requirement under Section 111 of the Clean Air Act (Act);

3. Any source, including an area source, subject to a standard or other requirement under Section 112 of the Act, except that a source is not required to obtain a permit solely because it is subject to regulations or requirements under 112(r) of the Act;

4. Any affected source under the Title IV Acid Rain Program;

5. Any source in a source category designated by the Administrator of the U. S. Environmental Protection Agency (US EPA)(Administrator) pursuant to this Section; and

6. Any source listed in SC Regulation 61-62.70.3(a) that is exempt from the requirement to obtain a permit under SC Regulation 61-62.70.3(b) may opt to apply for a permit under this Part 70 program.

The following source categories are exempted from the obligation to obtain a Part 70 permit, but are not exempted from other SC Department of Health and Environmental Control (Department) and US EPA requirements [SC Regulation 61-62.70.3(b)(4)]:

1. All sources and source categories that would be required to obtain a permit solely because they are subject to 40 CFR 60, Subpart AAA - Standards of Performance for New Residential Wood Heaters; and

2. All sources and source categories that would be required to obtain a permit solely because they are subject to 40 CFR 61, Subpart M - National Emission Standard for Hazardous Air Pollutants for Asbestos, Section 61.145, Standard for Demolition and Renovation.

Any person that operates or proposes to operate a particular source or installation may submit a request in writing that the Department make a determination as to whether a particular source or installation is subject to the permit requirements of this regulation. The request must contain such information as is believed sufficient for the Department to make the requested determination. [SC Regulation 61-62.70.3(e)]

## PART 3.0 GENERAL CONDITIONS

This section describes conditions and provisions applicable to all Part 70 sources. Specific source category conditions and requirements are contained in Section 5.0 of this permit.

### A. PERMIT ISSUANCE [SC Regulation 61-62.70.7(a)(1)]

A permit, permit modification, or renewal may be issued only if the following conditions have been met:

1. The Department has received a complete application for a permit, permit modification, or permit renewal;

2. Except for modifications qualifying for minor permit modification procedures under SC Regulation 61-62.70.7(e)(2) and (3), the Department has complied with the requirements for public participation under SC Regulation 61-62.70.7(h);

3. The Department has complied with the requirements for notifying and responding to affected States under SC Regulation 61-62.70.8(b);

4. The conditions of the permit provide for compliance with all applicable requirements and the requirements of Part 70; and

5. The Administrator has received a copy of the proposed permit and any notices required under SC Regulation 61-62.70.8(a) and (b), and has not objected to issuance of the permit under SC Regulation 61-62.70.8(c) within the required time frame.

A Title V operating permit does not excuse any facility from the preconstruction permitting requirements under SC Regulation 61-62.1.

### B. PERMIT EXPIRATION AND RENEWAL [SC Regulation 61-62.70.7(c)] (Revised 11/13/98)

Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with SC Regulation 61-62.70.5(a)(1)(iii), 61-62.70.5(a)(2)(iv), and 61-62.70.7(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 SC Regulation 61-62.70.6(f) shall remain in effect until the renewal permit has been issued or denied. Permits being renewed are subject to the same procedural requirements, including those for public participation, affected State and US EPA review, that apply to initial permit issuance.

**C. SEVERABILITY** [SC 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.

**D. FEE ASSESSMENT AND PAYMENT** [SC 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 SC Regulation 61-62.70.9.

**E. SUBMITTAL OF INFORMATION** [SC Regulation 61-62.70.6(a)(6)(v)]

The permittee 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, reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality. The Department may also request that the permittee furnish such records directly to the Administrator along with a claim of confidentiality.

**F. PUBLIC PARTICIPATION** [SC Regulation 61-62.70.7(h)]

Except for modifications qualifying for minor permit modification procedures, all permit proceedings, including initial permit issuance, significant modifications, and renewals, shall provide adequate procedures for public notice including offering an opportunity for public comment and hearing on the draft permit. These procedures shall meet all requirements of SC Regulation 61-62.70.7(h).

**G. PERMIT REOPENING** [SC Regulation 61-62.70.7(f)]

This permit shall be reopened and revised under any of the following circumstances:

1. Additional applicable requirements under the Act become applicable to a major Part 70 source for which three or more years remain on the original term of the permit. Such revisions shall be made not later than eighteen (18) months following promulgation of relevant standards or regulations. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to SC Regulation 61-62.70.7(c)(1)(ii).

2. Additional requirements, including excess emission requirements, become applicable to an affected source under the acid rain program. Excess emissions offset plans shall be deemed to be incorporated into this permit upon approval by the Administrator.

3. The Department or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

4. The Administrator or the Department determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

In addition, the permit may be modified, revoked, reopened, and reissued, or terminated for cause by the Department. The filing of a request by the permittee 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. [SC Regulation 61-62.70.6(a)(6)(iii)]

Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Such reopenings shall be as expeditious as practicable. Reopenings shall not be initiated before a notice of such intent is provided to the Part 70 source by the Department at least thirty (30) days in advance of the date that the permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

## H. TEMPORARY SOURCES [SC Regulation 61-62.70.6(e)]

In accordance with SC Regulation 61-62.70.6(e), the Department may issue a single permit authorizing emissions from similar operations by the same source owner or operator at multiple temporary locations. The operation must be temporary and involve at least one change in location during the term of the permit. No sources subject to Title IV of the Act shall be permitted as a temporary source.

## I. EMERGENCY PROVISIONS [SC Regulation 61-62.70.6(g)(3)]

In the case of an emergency, as defined in SC Regulation 61-62.70.6(g), the permittee shall verify an affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

2. The permitted facility was at the time being properly operated;

3. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and,

4. The permittee shall submit verbal notification of the emergency to the Department within twenty-four (24) hours of the time when emission limitations were exceeded, followed by written notifications within thirty (30) days. This notice fulfills the requirement of SC Regulation 61-62.70.6(a)(3)(iii)(B). This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

This provision is in addition to any emergency or upset provision contained in any applicable requirement. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

**J. PROPERTY RIGHTS** [SC Regulation 61-62.70.6(a)(6)(iv)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

**K. ECONOMIC INCENTIVES, MARKETABLE PERMITS, EMISSION TRADING** [SC 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.

**L. TITLE IV SOURCES** [SC Regulation 61-62.70.6(a)(4)]

The permittee 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 for 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.

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. [SC Regulation 61-62.70.6(a)(1)(ii)]

## M. ADMINISTRATIVE PERMIT AMENDMENTS [SC Regulation 61-62.70.7(d)(3)]

An administrative permit amendment as defined in SC Regulation 61-62.70.7(d) can be made by the Department consistent with the following:

1. The Department shall take no more than sixty (60) days from receipt of a request for an administrative permit amendment to take final action on such request, and may incorporate such changes without providing notice to the public or affected States provided that it designates any such permit revisions as having been made pursuant to this paragraph.

2. The Department shall submit a copy of the revised permit to the Administrator.

3. The source may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request, except transfer/ownership, which must comply with SC Regulation 61-62.1, Section II(E).

## N. MINOR PERMIT MODIFICATIONS [SC Regulation 61-62.70.7(e)(2)]

Minor permit modifications can be made by the Department in accordance with SC Regulation 61-62.70.7(e)(2)(I). An application requesting the use of minor permit modification procedures shall meet the requirements of SC Regulation 61-62.70.5(c) and shall include items as specified in SC Regulation 61-62.70.7(e)(2)(ii).

The Department may modify the procedure outlined in SC Regulation 61-62.70.7(e)(2) to process groups of a source's applications for certain modifications eligible for minor permit modification processing. Group processing of minor permit applications will proceed as outlined in SC Regulation 61-62.70.7(e)(3).

## O. SIGNIFICANT MODIFICATION PROCEDURES [SC Regulation 61-62.70.7(e)(4)]

Significant permit modification procedures shall be used for applications requesting permit modifications listed in SC Regulation 61-62.70.7(e)(4)(I). Significant permit modifications shall meet all requirements of this Part 70, including those for applications, public participation, review by affected States, and review by EPA, as they apply to permit issuance and permit renewal.

## P. DUTY TO COMPLY [SC Regulation 61-62.70.6(a)(6)(I)]

The permittee must comply with all of the conditions of this permit. Any permit noncompliance constitutes a violation of the SC 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.

## Q. INSPECTION AND ENTRY [SC Regulation 61-62.70.6(c)(2)]

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Department or an authorized representative to perform the following:

1. Enter upon the permittee'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 SC Pollution Control Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

## R. COMPLIANCE REQUIREMENTS [SC Regulation 61-62.70.6(c)(5)] (Revised 01/27/99)

Consistent with SC Regulation 61-62.70.6(a)(3), this permit contains compliance certification, testing, monitoring, reporting, and record keeping requirements sufficient to assure compliance with the terms and conditions of this permit. Any document (including reports) shall contain a certification by a responsible official or designee that meets the requirements of SC Regulation 61-62.70.5(d).

The responsible official or designee shall certify, annually, compliance with the conditions of this permit. 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 other means used for determining the compliance status with each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data.

3. The status of compliance with the terms and conditions of the permit for the period covered by the certification.

4. Such other facts as the Department may require to determine the compliance status of the source.

5. All compliance certifications shall be submitted to the Administrator as well as to the Department.

The annual compliance certification shall be sent to the Environmental Protection Agency (EPA) and the South Carolina Department of Health and Environmental Control - Bureau of Air Quality (SC DHEC - BAQ) at the following addresses:

**US EPA, Region 4**
**Air Enforcement Branch**
**61 Forsyth Street**
**Atlanta, GA 30303**

**SC DHEC - BAQ**
**Technical Management Section**
**2600 Bull Street**
**Columbia, SC 29201**

## S. SCHEDULE OF COMPLIANCE [SC Regulation 61-62.70.5(c)(8)] (Revised 11/13/98)

The permittee shall submit a compliance schedule that contains the following for all Part 70 sources:

1. A description of the source's compliance status and where appropriate a compliance schedule with respect to all applicable requirements as follows:

   (a) For applicable requirements with which the source is in compliance, a statement that during the permit term the source will continue to comply with such requirements.

   (b) For applicable requirements that will become effective during the permit term, a statement that the source will meet such requirements on a timely basis, unless a more detailed schedule is expressly required by the applicable requirement.

   (c) A schedule of compliance for sources that are not in compliance with all applicable requirements at the time of permit issuance. This schedule shall include a narrative description of how the source will achieve compliance, a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with all applicable requirements. This compliance schedule shall be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.

2. A schedule for submission of certified progress reports no less frequently than every six (6) months for sources required to have a schedule of compliance to remedy a violation. Progress reports shall meet the requirements of SC Regulation 61-62.70.6(c)(4)(I) and (ii).

3. The compliance plan content requirements specified in this paragraph shall apply and be included in the acid rain portion of a compliance plan for an affected source, except as specifically superseded by regulations promulgated under Title IV of the act with regard to the schedule and method(s) the source will use to achieve compliance with acid rain emissions limitations.

## T. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE
[SC Regulation 61-62.70.6(a)(6)(ii)]

It shall not be a defense for a permittee 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.

## U. OPERATIONAL FLEXIBILITY [SC Regulation 61-62.70.7(e)(5)]

In accordance with SC Regulation 61-62.70.7(e)(5), a permitted facility is authorized to make changes within their facility without requiring a permit revision, if the changes are not modifications under Title I of the Act and the changes do not exceed the emissions allowable under this permit. The permitted facility shall provide the Administrator and the Department written notification as required by SC Regulation 61-62.70.7(e)(5) at least seven (7) days prior to such changes.

# PART 4.0 FACILITY WIDE REQUIREMENTS

## A. EMISSIONS LIMITS AND STANDARDS

Table 4.1 contains summaries of facility wide emission limits and standards.

### *TABLE 4.1* EMISSION LIMITS AND STANDARDS

| Pollutant | Limit/Standard | Regulation | State Only Requirement | Condition Number |
|---|---|---|---|---|
| State New Source Review | As Specified in Attachment A | SC Regulation 61-62.1, Section II(A) | Yes | 4.B.2<br>4.B.3 |
| Toxic Air Pollutants | As Specified in Attachment A | SC Regulation 61-62.5, Std No. 8 | Yes | 4.B.3 |
| Hazardous Air Pollution | Comply with Regulation | SC Regulation 61-62.4 | No | N/A |
| Open Burning | Comply With Regulation | SC Regulation 61-62.2 | No | N/A |
| Fugitive Emissions | Comply With Regulation | SC Regulation 61-62.6, Sec III | No | N/A |
| Ozone Depleting Substances | * | 40 CFR Part 82, Subparts B through H | No | 4.B.6 |
| Asbestos | * | 40 CFR Part 61.145 | No | 4.B.8 |
| Radionuclides | 10 mrem/year | 40 CFR 61 Subpart H | No | 4.B.9 to 4.B.14 |
| Monitoring Parameter Operating Ranges | As Specified in Condition | SC Regulation 61-62.70.6(a)(3) | No | 4.B.17 thru 4.B.24 |
| Diesel Fuel Usage | As specified | N/A | No | 4.B.25 |

N/A = Not Applicable
* Specific To Subpart

The maximum allowable emission limits above are derived from the various Federal and State regulations that govern the operation of this type of facility. All applicable facility wide emission limits and corresponding regulations are listed above. Additional operating requirements which may be more stringent than those above are contained in Part 5.0, Part 6.0, and Part 7.0 of this permit.

## B. FACILITY WIDE CONDITIONS (Revised 11/13/98 & 7/3/03)

| Condition Num. | Conditions |
|---|---|
| 4.B.1 | In accordance with SC Regulation 61-62.1, Section II, the permittee must comply with all applicable statutes and regulations of the United States and the State of South Carolina. This permit does not relieve the permittee from compliance with applicable local laws, ordinances, and regulations. |

| Condition Num. | Conditions |
|---|---|
| 4.B.2 | Air dispersion modeling (or other method) has demonstrated that this facility's operation will not interfere with the attainment and maintenance of any state or federal standard. Any changes in the parameters used in the air dispersion modeling 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. The emission rates used in the determination are listed in Attachment A of this permit. Higher emission rates may be administratively incorporated into Attachment A of this permit provided a demonstration using these higher emission rates shows the attainment and maintenance of any state or federal standard or with any other applicable requirement. 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. |
| 4.B.3 | The owner/operator shall maintain this facility in compliance with the pollutant limitations in Part 4, Part 5, Part 6, Part 7, and/or the emission rates as listed in Attachment A of this Part 70 operating permit, whichever is more restrictive. Attachment A is a State Only enforceable requirement. Should the facility wish to increase the emission rates listed in Attachment A, it may do so by the administrative process specified in condition 4.B.2. |
| 4.B.4 | A list of equipment which is considered insignificant pursuant to SC Regulation 61-62.70.5(c) has been submitted with the Title V application and reviewed by Bureau of Air Quality (BAQ) staff. The list, including source descriptions and citation for exemption, is summarized in Attachment B of the permit. Attachment B excludes those activities identified in Part A of the insignificant activities list. Written notification to the Bureau of Air Quality is required for the addition of any new equipment which may meet the definition of insignificant or exempt as described above, excluding those sources listed in Part A of the insignificant activities list. (Revised 11/13/98) |
| 4.B.5 | The owners or operators of Part 70 sources shall complete and submit emissions inventories as required consistent with the schedule approved pursuant to SC Regulation 61-62.1, Section III. This requirement notwithstanding, an emissions inventory may be required at any time in order to determine the compliance status of any facility. |
| 4.B.6 | The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart B, Protection of Stratospheric Ozone, Recycling and Emissions Reduction, except as provided for motor vehicle air conditioners (MVACs) in Subpart B. If the permittee performs a service on motor (fleet) vehicles that involves ozone-depleting substance refrigerant in MVACs, the permittee is subject to all applicable requirements of 40 CFR Part 82, Subpart B, Servicing of MVACs. The permittee shall also comply with the requirements for labeling of products and containers pursuant to 40 CFR 82, Subpart E. The labeling of products Using Ozone Depleting Substances (ODS) with the requirements for substitute ODS products which have been approved for specified end uses as provided in 40CFR 82, subpart G. The significant New Alternatives Policy (SNAP) program and with the requirements of recycling and emissions reduction pursuant to 40 CFR 82, Subpart H, Halon emissions reduction. |

| Condition Num. | Conditions |
|---|---|
| 4.B.7 | In accordance with SC Regulation 61-62.1 Section II, (C)(3), for all sources not required to have continuous emissions monitors, in the event of 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 hour or more and which are greater than those discharges described for normal operation in the permit application shall be reported to the local Environmental Quality Control (EQC) Regional office within twenty-four (24) hours after the beginning of the occurrence. The permittee shall also submit a written report within thirty (30) days of the occurrence. This report shall be submitted to the address specified in 4.B.15. The report shall contain as a minimum, the following: the identity of the emission unit and associated equipment where excess emissions occurred, the magnitude of excess emissions, the time and duration of excess emissions, the steps taken to remedy the malfunction and to prevent a recurrence, documentation that control equipment and processes were at all times maintained and operated, to the maximum extent practicable, in a manner that was consistent with good practice for minimizing emissions. Such a report shall in no way serve to excuse, otherwise justify, or in any manner affect any potential liability or enforcement action resulting from the occurrence. This defines the Department's definition of prompt in its relation to the degree of reporting as specified by SC Regulation 61-62.70.6(a)(3)(iii)(b). |
| 4.B.8 | The permittee shall comply with the standards of performance for asbestos abatement operations pursuant to 40 CFR Part 61.145 and SC Regulation 61-86.1, including, but not limited to, requirements governing training, licensing, notification, work practice, cleanup and disposal. |
| 4.B.9 | Savannah River Site is subject to 40 CFR 61 Subpart H, *National Emission Standards for Emissions of Radionuclides Other Than Radon From Department of Energy Facilities*. Emissions of radionuclides to the ambient air from Department of Energy facilities shall not exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent of 10 mrem/yr. Facility means all buildings, structures and operations on one contiguous site. Also, compliance with the standard must be based on emissions from both significant and insignificant sources including unmonitored and diffuse sources. The list of Potential Impact Category (PIC) 1 & 2 sources (sources with a potential effective dose equivalent of > 0.1 mrem/year) to which this Subpart applies appears below.<br>F-Area: F-Canyon FB Line<br>H-Area: H-Canyon HB Line |
| 4.B.10 | To determine compliance with 40 CFR 61 Subpart H, radionuclide emissions shall be determined and effective dose equivalent values to members of the public calculated using EPA approved sampling procedures, computer models CAP-88 or AIRDOS-PC, or other procedures for which EPA has granted prior approval. DOE facilities for which the maximally exposed individual lives within 3 kilometers of all sources of emissions in the facility, may use EPA's COMPLY model and associated procedures for determining dose for purposes of compliance. Radionuclide emission rates from point sources (stacks or vents) shall be measured in accordance with the requirements of 40 CFR 61.93(b) or other procedures for which EPA has granted prior approval. |

| Condition Num. | Conditions |
|---|---|
| 4.B.11 | Savannah River Site shall demonstrate compliance with 40 CFR 61 Subpart H by calculating the highest effective dose equivalent to any member of the public at any offsite point where there is a residence, school, business or office. The owners or operators of each facility shall submit an annual report to EPA headquarters, to the appropriate regional office and to the address in condition 26 of this section by June 30 which includes the results of the monitoring and the dose calculations required by 40 CFR 61.93(a) for the previous calendar year. An annual report shall include the information specified in 40 CFR 61.94(b). If the facility is not in compliance with the emission limits of 40 CFR 61.92 in the calendar year covered by the report, then the facility must commence reporting to the Administrator on a monthly basis the information listed in 40 CFR 61.94(b) for the preceding month. These reports will start the month immediately following the submittal of the annual report for the year in noncompliance and will be due 30 days following the end of each month. This increased level of reporting will continue until the Administrator and/or the BAQ has determined that the monthly reports are no longer necessary. In addition to all the information required in 40 CFR 61.94(b) monthly reports shall also include the following information:<br><br>* All controls or other changes in operation of the facility that will be or are being installed to bring the facility into compliance.<br>* If the facility is under a judicial or administrative enforcement decree, the report will describe the facilities performance under the terms of the decree.<br><br>In those instances where the information requested is classified, such information will be made available to EPA and the BAQ separate from the report and will be handled and controlled according to applicable security and classification regulations and requirements. |
| 4.B.12 | Savannah River Site must maintain records documenting the source of input parameters including the results of all measurements upon which they are based, the calculations and/or analytical methods used to derive values for input parameters, and the procedure used to determine effective dose equivalent. This documentation should be sufficient to allow an independent auditor to verify the accuracy of the determination made concerning the facility's compliance with the standard. These records must be kept at the site of the facility for at least five years and, upon request, be made available for inspection by the Administrator, or his authorized representative. All facilities designated under 40 CFR 61 Subpart H are exempt from the reporting requirements of 40 CFR 61.10. |
| 4.B.13 | In addition to any activity that is defined as construction under 40 CFR Part 61, Subpart A, any fabrication, erection or installation of a new building or structure within a facility that emits radionuclides is also defined as new construction for purposes of 40 CFR part 61, subpart A. An application for approval under 40 CFR 61.07 or notification of startup under 40 CFR 61.09 does not need to be filed for any new construction of or modification within an existing facility if the effective dose equivalent, caused by all emissions from the new construction or modification, is less than 1% of the standard prescribed in 40 CFR 61.92. For purposes of this paragraph the effective dose equivalent shall be calculated using the source term derived using Appendix D as input to the dispersion and other computer models described in 40 CFR 61.93. DOE may, with prior approval from EPA, use another procedure for estimating the source term for use in this condition. A facility is eligible for this exemption only if, based on its last annual report, the facility is in compliance with this subpart. Conditions to approvals granted under 40 CFR 61.08 will not contain requirements for post approval reporting on operating conditions beyond those specified in 40 CFR 61.94. |
| 4.B.14 | Savannah River Site shall implement an Operation and Maintenance (O&M) program to provide inspections of stack sampling equipment as required by 40 CFR 61 Subpart H. These requirements with supporting documentation shall be submitted to the address specified in 4.B.15 within the time frame specified in Subpart H. |

| Condition Num. | Conditions |
|---|---|
| 4.B.15 | All submittals required by this condition (as referenced by area-specific Part 6.0) shall be sent to the South Carolina Department of Health and Environmental Control - Bureau of Air Quality (SC DHEC - BAQ) at the following address:<br>**SC DHEC - BAQ**<br>**Technical Management Section**<br>**2600 Bull Street**<br>**Columbia, SC 29201** |
| 4.B.16 | Submittals required by this condition (as referenced by area-specific Part 6.0) shall be sent to the South Carolina Department of Health and Environmental Control (SC DHEC) at the following address:<br>**Region 5, Aiken EQC Office**<br>**206 Beaufort Street NE**<br>**Aiken, SC 29801** |
| 4.B.17 | Savannah River Site shall install, operate and maintain pressure drop gauge(s) on each module of the baghouse(s). All pressure drop gauges shall be readily accessible for verification by operating personnel and Department personnel (i.e. on ground level or easily accessible roof level). Pressure drop readings shall be recorded at the frequency specified in Table 6.1 of this area-specific section during source operation and shall be made available to Department personnel upon request. The readings shall be maintained in logs (written or electronic (i.e., computerized data system)), along with any corrective action taken when deviations occur. Operational ranges for the monitored parameters shall be established to provide a reasonable assurance of compliance. These operational ranges for the monitored parameters shall be derived from stack test data, vendor certification, and/or operational history and visual inspections, which demonstrate the proper operation of the equipment in compliance. These ranges, with supporting documentation and quality assurance procedures, shall be submitted to the address specified in 4.B.15 for approval within 180 days of the effective date of this permit. The operating ranges may be updated using this procedure, following Bureau approval. Baghouse monitoring data shall be maintained on site for a period of at least five (5) years from the date generated and shall be made available to Department personnel upon request. Each incidence of operation outside these operational ranges, including date and time, cause, and corrective action taken, shall be recorded and kept on site for five (5) years. Quarterly reports of these incidences shall be submitted to the address specified in 4.B.15 postmarked no later than 30 days after the end of the reporting period. If no incidences occurred during the reporting period then a letter shall be submitted to indicate such. These reports shall be submitted to the address specified in 4.B.15 postmarked no later than 30 calendar days after the end of each calendar quarter. In addition to the above, the facility shall conduct and log maintenance inspections of all baghouses (with the exception of B084 on unit ID A-008) to ensure proper operation. These maintenance inspections shall include, but are not limited to: daily visual monitoring of stack outlet and dust discharge systems; weekly inspection of discharge conveyor bearings, damper operation, compressed air lines, fan operation, and all hoses and clamps; and monthly spot inspections for bag leaks and holes, fan blade wear, and baghouse housing for corrosion. The inspection log shall be made available to Department personnel upon request. Any alternative method for monitoring baghouse performance must be approved by the Bureau and shall be incorporated into the permit as set forth in SC Regulation 61-62.70.7. |
| 4.B.18 | <Void> |
| 4.B.19 | <Void> |
| 4.B.20 | <Void> |

| Condition Num. | Conditions |
|---|---|
| 4.B.21 | Savannah River Site shall install, operate and maintain outlet gas temperature gauges, inlet and outlet coolant temperature gauges and coolant flowmeters on each condenser (with the exception of J005 on Unit ID S-001 which shall be allowed to operate in accordance with WSRC Letter ESH-ECS-2002-00284). All gauges shall be readily accessible for verification by operating personnel and Department personnel (i.e. on ground level or easily accessible roof level). Each parameter shall be recorded at the frequency specified in Table 6.1 of this area-specific section during source operation and shall be made available to Department personnel upon request. The readings shall be maintained in logs (written or electronic (i.e., computerized data system)), along with any corrective action taken when deviations occur. Operational ranges for the monitored parameters shall be established to provide a reasonable assurance of compliance. These operational ranges for the monitored parameters shall be derived from stack test data, vendor certification, and/or operational history and visual inspections, which demonstrate the proper operation of the equipment in compliance. These ranges, with supporting documentation and quality assurance procedures, shall be submitted to the address specified in 4.B.15 for approval within 180 days of the effective date of this permit. The operating ranges may be updated using this procedure, following Bureau approval. Condenser monitoring data shall be maintained on site for a period of at least five (5) years from the date generated and shall be made available to Department personnel upon request. Each incidence of operation outside these operational ranges, including date and time, cause, and corrective action taken, shall be recorded and kept on site for five (5) years. Quarterly reports of these incidences shall be submitted to the address specified in 4.B.15 postmarked no later than 30 calendar days after the end of each calendar quarter. If no incidences occurred during the reporting period then a letter shall indicate such. These reports shall be submitted to the address specified in 4.B.15 postmarked no later than 30 calendar days after the end of each calendar quarter. In addition to the above, the facility shall conduct and log maintenance inspections of all condensers to ensure proper operation to include as a minimum the following: daily visual monitoring of stack outlet and condenser discharge systems; monthly inspection of all ductwork, piping and condenser housing for corrosion. The log shall be maintained on site for a period of at least five (5) years from the date generated and shall be made available to Department personnel upon request, and shall include, but be not limited to, the following:<br>a. The date, time, and duration of each time the condenser is bypassed for equipment malfunction/failure or for any other reason such as the performance of planned maintenance on the condenser; and<br>b. The nature of such malfunction/failure (i.e. fouling, freezing, leaks, excessive vibration, etc.)<br><br>Any alternative method for monitoring condenser performance must be approved by the Bureau and shall be incorporated into the permit as set forth in SC Regulation 61-62.70.7. |
| 4.B.22 | <Void> |
| 4.B.23 | <Void> |

| Condition Num. | Conditions |
|---|---|
| 4.B.24 | Savannah River Site shall perform the following as it pertains to the operation of all cyclones:<br><br>(a) To assure compliance, the owner/operator shall perform inspection and maintenance as recommended by cyclone manufacturer and as a minimum (if there are no manufacturer recommendations) the following inspections at least quarterly (unless less frequent inspections are specified in Table 6.1 of the area-specific section of the permit):<br>(i) an inspection of the structural integrity of cyclones, and;<br>(ii) visual inspection of system ductwork and material collection unit for leaks.<br>(b) The results of operation and maintenance checks shall be maintained in a log book (written or electronic) on site and made available to a Department representative upon request. The log book shall include, but not be limited to, the following:<br>(i) the date and time of each recorded action,<br>(ii) the results of each inspection,<br>(iii) the results of any maintenance performed on the control unit, and<br>(iv) any variance from manufacturer's recommendations, if any, and corrections made.<br><br>The inspections results shall be maintained in logs (written or electronic), along with any corrective action taken, for a period of at least five (5) years from the date generated and shall be made available to Department personnel upon request. |

| Condition Num. | Conditions |
|---|---|
| 4.B.25 | All diesel generators, diesel air compressors and diesel pumps at Savannah River Site (SRS) are permitted to burn #2 oil and Biodiesel™ as fuel. The use of any other substance as fuel in the diesel generators/air compressors is prohibited unless prior written approval is obtained from the Bureau of Air Quality (BAQ). SRS must record fuel oil/Biodiesel consumption monthly, based on site records for each time a diesel unit is refueled, and calculate semiannual fuel oil/Biodiesel consumption on a twelve (12) month rolling sum. To ensure compliance with the annual consumption limit specified below, SRS must refuel each unit at least once during the annual permit reporting year, or for those units with infrequent or minimal annual operations, the unit must be refueled when the tank level decreases to below 75%, as determined from an appropriate measurement device, e.g., installed tank level gauge, sight glass, float gauge, or an incremented dip stick. For any unit whose tank level did not decrease below 75% and was not refueled during any given 12 month running reporting period, the facility operator must report the approximate tank level in percent (75% to 100%) biannually in September and March. Fuel oil sulfur content for these fuels shall be less than or equal to 0.5% percent by weight. Acceptable fuel oil certification can be ensured by following Department guidance entitled "Guidance for Fuel Oil Certifications" issued on August 12, 2004 and any subsequent revisions. Fuel supplier certification shall consist of (a) the name of the oil supplier, and (b) a statement from the oil supplier that the oil complies with the specifications for fuel oil #2, as defined by the American Society for Testing Materials in ASTM Method D396-98. A letter summarizing all batches of oil received on a semiannual basis from the site fuel oil supplier stating that all the #2 fuel oil supplied to the site will meet the specifications stated above will satisfy the documentation and reporting requirement.<br><br>The use of Biodiesel™ fuel as an alternative fuel in diesel generators, diesel air compressors and diesel pumps throughout the site is allowed in accordance with the proposal as specified in Savannah River Site's November 13, 2000 letter to the BAQ (ESH-ESS-2000-00362), which allows for the use of an 80/20 blend of #2 fuel oil/Biodiesel™. The use of Biodiesel™ in the package boilers shall likewise be granted provided that Savannah River Site submits a test protocol within the allotted time frame that testing is to be performed, completes a source test on the requested unit(s) and submits the results within 180 days from commencement of burning Biodiesel™ in the package boilers. All submittals shall be sent to the address specified in condition 4.B.27. Failure to comply with the above source test requirement within the given time frame shall rescind this approval to burn Biodiesel™ in the package boilers. If the results of the source test indicate emissions of criteria pollutants that are in any way higher than for fuel oil combustion, the BAQ may determine that a permit modification shall be necessary prior to continuing operation with the use of Biodiesel™ fuel as an alternative fuel.<br><br>Savannah River Site's fuel oil use in the on-site generators shall be limited to 2,769,720 gallons per consecutive 12-month period, or 2,681,240 gallons per consecutive 12-month period of Biodiesel™ fuel, or a pro-rated combination of the two fuels. The gallons per consecutive 12-month period limit when using the pro-rated combination of fuel oil/Biodiesel™ shall be based on the following equation:<br><br>$Y = 2{,}769{,}720 - 0.033X$, where;<br><br>Y = Total gallons of fuel consumed (in gallons per consecutive 12-month period), and<br>X = Biodiesel™ fuel (in gallons per consecutive 12-month period)<br><br>Savannah River Site shall maintain all records, including records of fuel oil/Biodiesel™ consumption and fuel oil certification, for a period of at least five (5) years from the date generated, and shall make these records available to Department personnel upon request. Semiannual reports including fuel oil certification, fuel oil/Biodiesel™ consumption, and all recorded parameters and calculated values shall be submitted to the address specified in condition 4.B.15 postmarked no later than 30 calendar days after the end of the reporting period. |

| Condition Num. | Conditions |
|---|---|
| 4.B.26 | All submittals required by this condition (as referenced by area-specific Part 6.0) shall be sent to the South Carolina Department of Health and Environmental Control - Bureau of Air Quality (SC DHEC - BAQ) at the following address:<br>**SC DHEC - BAQ**<br>**Division Director**<br>**Air Toxics, Emissions Inventory and Mondeling Division**<br>**2600 Bull Street**<br>**Columbia, SC 29201** |
| 4.B.27 | All submittals required by this condition (as referenced by area-specific Part 6.0) shall be sent to the South Carolina Department of Health and Environmental Control - Bureau of Air Quality (SC DHEC - BAQ) at the following address:<br>**SC DHEC - BAQ**<br>**Source Evaluation Section**<br>**2600 Bull Street**<br>**Columbia, SC 29201** |
| 4.B.28 | All submittals of operating ranges required by conditions 4.B.17 through 4.B.23 shall be completed as specified in these conditions. Due to the nature of emissions, the number of control devices employed at the facility, the importance of operating ranges being set accurately to assure compliance, the amount of data needed to be analyzed and the complex nature of the data to be analyzed, the submittal of such data must be processed as a significant modification to this permit, and the incorporation of these ranges shall be completed in accordance with the significant modification procedures for Title V permits, as set forth in SC Regulation 61-62.70.7(e)(4). |
| 4.B.29 | The permittee shall keep records of all monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application and shall be made available to Department personnel upon request. 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 regulation or this permit. |
| 4.B.30 | For those sources that emit radionuclides as their only form of particulate matter, SC Regulation 61-62.5, Standard 4 PM and opacity limits are applicable for such sources. However, because the nature of this particulate matter such that it is subject to 40 CFR 61 Subpart H, *National Emission Standards for Emissions of Radionuclides Other Than Radon From Department of Energy Facilities*, the methods described in this NESHAP will be sufficient to ensure continued compliance with Standard 4. |

## PART 5.0a EMISSION UNIT REQUIREMENTS (A-Area)

### A. EMISSION UNIT DESCRIPTION (A-Area)

Table 5.1 is a description of emission units located in A-Area.

*TABLE 5.1* **EMISSION UNITS (A-Area)** (Revised 7/3/03)

| Unit ID | Unit Description | Control Device Description |
|---|---|---|
| A-001 | **VOID** - 305-A Paper Shredder | **Cyclone (VOID):** C012; **Baghouse (VOID):** B681 |
| A-002 | **VOID** - 773-A C-Wing Laboratories R&D Equipment** | **HEPA Filters (VOID):** H273 thru H337, H352 thru H354, H760 & H761, P104 thru P110, P115 & P116 |
| A-003 | **VOID** - 791-A Laboratories R&D Equipment** | **HEPA Filters (VOID):** H339, H341, H342, H344, H345, H347 thru H350, H355 thru H364, H440 thru H450, H455 thru H457, H464, H465, H482 thru H489, H491 thru H493, H495, H496, H662, H665, H667, H681, H683, H686, H688, H702, H704, H721, H723, H725, H727, H729, H731, H733, H735, H737, H739, P027, P037, P047, P051, P052, P054; **Sand Filter (VOID):** N004 |
| A-004 | **VOID** - 773-A B-Wing Laboratories R&D Equipment** | **HEPA Filters (VOID):** H370 thru H436, P129 thru P148 |
| A-005 | 722-4A Beadblaster | **Baghouse:** B038 |
| A-006 | 784-A Stoker Boiler #1 | **Cyclones:** C021 & C023 |
| A-007 | 784-A Stoker Boiler #2 | **Cyclones:** C022 & C024 |
| A-008 | 784-A Ash Handling System | **Cyclone:** C025; **Baghouse:** B084; **Fiberglass/Roughing Filter:** I500 |
| A-009 | **VOID** - 715-6A Gasoline Tank #3 | None |
| A-010 | **VOID** - 754-5A Emergency Diesel Generator #1 | None |
| A-011 | **VOID** - 754-5A Emergency Diesel Generator #2 | None |
| A-012 | **VOID** - 731-8A Soil Vapor Extraction Unit | None |

### B. CONTROL DEVICE DESCRIPTION

Table 5.2 is a description of control devices located in this area.

*TABLE 5.2* **CONTROL DEVICES (A-Area)** (Revised 7/3/03)

| Control Device ID | Control Device Description | Installation Date | Pollutant(s) Controlled |
|---|---|---|---|
| B038 | Baghouse | 2/1992 | $PM_{10}$ |
| B084 | Baghouse | 6/1997 | $PM_{10}$ |
| I500 | Fiberglass/Roughing Filter | 6/1997 | $PM_{10}$ |
| C021 thru C024 | Cyclone | 10/1976 | $PM_{10}$ |
| C025 | Cyclone | 6/1997 | $PM_{10}$ |

## C. EQUIPMENT DESCRIPTION (A-Area)

A description of the equipment located in A-Area is provided in the following tables:

*TABLE 5.3* **UNIT ID A-001 - VOID** (Revised 7/3/03)

*TABLE 5.4* **UNIT ID A-002 - VOID**

*TABLE 5.5* **UNIT ID A-003 - VOID**

*TABLE 5.6* **UNIT ID A-004 - VOID**

*TABLE 5.7* **UNIT ID A-005 - 722-4A Beadblaster**

| Equipment ID | Equipment Description | Installation Date | Control Device ID | Stack ID |
|---|---|---|---|---|
| 794A | Beadblaster | 2/1992 | B038 | AGP0007 |

*TABLE 5.8* **UNIT IDs A-006 &A-007 (784-A Stoker Boilers) & A-008 (Ash Handling System)**

| Equipment ID | Equipment Description | Installation Date | Control Device ID | Stack ID |
|---|---|---|---|---|
| 822A | Coal Fired Stoker Boiler #1 rated at $71.7 \times 10^6$ BTU/hr | 1/1952 | C021 & C023 | APF0001 |
| 823A | Coal Fired Stoker Boiler #2 rated at $71.7 \times 10^6$ BTU/hr | 1/1952 | C022 & C024 | APF0001 |
| 544A | Ash Silo for storage of coal ash captured by dry air vacuum ash handling system at 784-A Powerhouse | 5/1997 | C025, B084 & I500 | APJ0024 |
| 67FA | Ash Truck Loading for offloading of stored coal ash from silo | 5/1997 | C025, B084 & I500 | APJ0024 |

*TABLE 5.9* **UNIT ID A-009 - Gasoline Storage Tank**

| Equipment ID | Equipment Description | Installation Date | Control Device ID | Stack ID |
|---|---|---|---|---|
| 512A | **VOID** - 10,000 Gallon Above-Ground Gasoline Tank (Tank #3) | 4/1952 | None | AYT0002 |

*TABLE 5.10* **UNIT IDs A-010 & A-011 - VOID**

*TABLE 5.11* **UNIT ID A-012 – VOID**

## D. EMISSION LIMITS AND STANDARDS (A-Area) (Revised 7/3/03)

Table 5.12 contains a summary of emission limits & standards for emission units located in A-Area.

*TABLE 5.12* **EMISSION LIMITS AND STANDARDS (A-Area)**

| Unit ID | Pollutant | Limit/ Standard | Reference Method | Regulation | State Only | Condition Number |
|---|---|---|---|---|---|---|
| A-005 & A-008 | Opacity | 20% | 9 | SC Regulation 61-62.5 Std. 4, Sect. IX | No | a5.E.1 |
| A-006 & A007 | Opacity | 40% | 9 | SC Regulation 61-62.5 Std. 1, Sect. I | No | a5.E.3 |
| A-006 & A007 | PM | 0.6 lb/$10^6$ BTU | 5 | SC Regulation 61-62.5 Std. 1, Sect. II | No | a5.E 4 |
| A-006 & A007 | $SO_2$ | 3.5 lb/$10^6$ BTU | 6 or 6c | SC Regulation 61-62.5 Std. 1, Sect. III | No | a5.E 5 |
| A-005 | PM | 0.789 lb/hr | 5 | SC Regulation 61-62.5 Std. 4, Sect. VIII | No | a5.E.6 |

The maximum allowable emission limits above are derived from the various Federal and State regulations that govern the operation of this type of source. All applicable emission limits and corresponding regulations are listed above. Additional operating requirements which may be more stringent than those above are contained in Part 4.0 or Part 7.0 of this permit or Part 6.0 in this Area-specific section.

## E. EMISSION UNIT CONDITIONS (A-Area)

| Condition Number | Conditions |
|---|---|
| a5.E.1 | In accordance with SC Regulation 61-62.5, Standard No. 4 - Emissions from Process Industries, Section IX - Visible Emissions (Where Not Specified Elsewhere), where construction or modification began after December 31, 1985, emissions (including fugitive emissions) shall not exhibit an opacity greater than 20%. |
| a5.E.2 | <Void> |
| a5.E.3 | The A-Area boilers shall not discharge into the ambient air smoke that exceeds an opacity of 40%. The forty (40) percent opacity limit may be exceeded for sootblowing, but may not be exceeded for more than six (6) minutes in a one hour period, nor be exceeded for more than a total of twenty-four (24) minutes in a twenty-four (24) hour period. Emissions caused by sootblowing shall not exceed sixty (60) percent opacity. The opacity standards set forth above do not apply during startup, shutdown or malfunction. The owner/operator 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. The owner/operator shall, for a period of at least five (5) years maintain a log of the time, magnitude, duration and any other pertinent information to determine periods of startup and shutdown and make these records available to a Department representative upon request. |
| a5.E 4 | The allowable discharge of particulate matter (PM) resulting from fuel burning emission units shall be limited to 0.6 lb/$10^6$ BTU. |
| a5.E 5 | The maximum allowable sulfur dioxide ($SO_2$) emission from fuel burning emission units located in a Class II Area shall not exceed 3.5 lb/$10^6$ BTU. |

| Condition Number | Conditions |
|---|---|
| a5.E.6 | In accordance with SC Regulation 61-62.5, Standard No. 4 - Emissions from Process Industries, Section VIII - Other Manufacturing, particulate matter emissions shall be limited to the rate specified by use of the following equations:<br>For process weight rates less than or equal to 30 tons per hour ($E = 4.10P^{0.67}$);<br>For process weight rates greater than 30 tons per hour ($E = 55.0P^{0.11} - 40$);<br>where,<br>E = the allowable emission rate in pounds per hour, and<br>P = process weight rate in tons per hour.<br>As such, the allowable particulate matter emission limit for the paper shredder is 1.4 lb/hr at its nominal production rating of 0.21 tons per hour, and the allowable particulate matter emission limit for the beadblaster is 0.789 lb/hr at its nominal production rating of 0.086 tons per hour. |

## PART 6.0a MONITORING AND REPORTING REQUIREMENTS (A-Area)

[SC Regulation 61-62.1, Section II]; [SC Regulation 61-62.70.6(a)(3)(I)(B)]

## A. MONITORING AND REPORTING (A-Area)

Table 6.1 contains summaries of the monitoring and reporting required of A-Area.

*TABLE 6.1* **MONITORING AND REPORTING (A-Area)** (Revised 7/3/03)

| Unit ID | Pollutant/ Parameter | Limit | Required Monitoring | Monitoring Frequency | Reporting Frequency | Condition Number |
|---|---|---|---|---|---|---|
| A-006 & A007 | PM | 0.6 lb/$10^6$ BTU | Source test | Biennial | Refer to condition | a6.B.7 |
| A-006 & A007 | $SO_2$ | 3.5 lb/$10^6$ BTU | Source test | Biennial | Refer to condition | a6.B.7 |
| A-006 & A007 | Opacity | 40% | Source test | Biennial | Refer to condition | a6.B.7 |
| A-006 & A007 | Startup and Shutdown | N/A | Recordkeeping | Per Occurrence | Onsite** | a6.B.8 |
| A-006 & A007 | Fuel Type | Refer to conditions | | | | a6.B.9 & a6.B.10 |
| A-006 & A007 | Cyclone Performance | N/A | Recordkeeping | Annual | See condition | 4.B.24 |
| A-005 | Baghouse Performance | See condition | Recordkeeping | See condition | See condition | a6.B.14 |
| A-008 | Baghouse Performance | As specified | Recordkeeping | Daily | Quarterly | 4.B.17 |
| A-006 & A-007 | Visible Emissions | N/A | Recordkeeping | Daily | Semiannual | 7.A.1 |

N/A = Not Applicable

** Onsite = Facility shall keep records on site. Semiannual notification that the required monitoring is being completed as specified shall be submitted to the address specified in condition 4.B.15 in accordance with SC Regulation 61-62.70.6(a)(3)(iii)(A).

## B. MONITORING AND REPORTING CONDITIONS (A-Area) (Revised 7/3/03)

| Condition Number | Conditions |
|---|---|
| a6.B.1 | <Void> |
| a6.B.2 | <Void> |
| a6.B.3 | <Void> |
| a6.B.4 | <Void> |
| a6.B.5 | <Void> |
| a6.B.6 | <Void> |
| a6.B.7 | Every two (2) years the permittee shall schedule tests for PM, $SO_2$ and opacity to demonstrate compliance with the standard. All tests shall be made by, or under the direction of, a person qualified by training and/or experience in the field of air pollution testing. All tests shall be conducted while the emission unit is operating at the expected maximum production rate or other production rate or operating conditions which would result in the highest emissions. Any production rate less than rated capacity may result in production limitations. The Manager of the Source Evaluation Section, BAQ, shall be notified at least two (2) weeks prior to conducting a stack test. The final test reports must be submitted to the address specified in condition 4.B.27, no later than thirty (30) days after the completion of onsite testing. |
| a6.B.8 | The permittee shall maintain a log onsite of the time, magnitude, duration and any other pertinent information to determine periods of startup and shutdown and make such information available to the BAQ upon request. |
| a6.B.9 | The A-Area boilers are permitted to burn only coal with sulfur content less than or equal to 2.0% as fuel. Coal sulfur content shall be documented for all coal burned in the subject boilers. This shall be obtained by pulling a composite sample of coal being fed into the plant once per week and the samples analyzed by a laboratory. Records of coal sulfur content analyses shall be maintained on site for a period of at least five (5) years and shall be made available to a Department representative upon request. The use of any other substances as fuel is prohibited without prior written approval from the BAQ. |
| a6.B.10 | Semiannual reports shall be submitted to the address specified in condition 4.B.15 postmarked no later than thirty (30) calendar days after the end of the reporting period. The report shall include a summary of relevant information obtained from the lab analyses performed as a result of the requirements set forth in condition 9 of this section. |
| a6.B.11 | <Void> |
| a6.B.12 | <Void> |
| a6.B.13 | <Void> |
| a6.B.14 | As an alternative to condition 4.B.17, the bead blaster bag house, which operates approximately 6 hours per week (and for no more than 5,300 hours per consecutive 12-month period), shall be monitored when it is in operation as follows:<br><br>(a) At the beginning of each blasting operation, the operator will visually observe the discharge exhaust from the bag house for visible emissions (fines) and document that observation in a logbook kept at the bead blaster.<br>(b) The operator will establish an annual maintenance schedule for inspection and replacement of the bag house filters in accordance with manufacturer's maintenance and inspection recommendations.<br><br>Any further alternative methods for monitoring filter performance must be approved by the Bureau and shall be incorporated into the permit as set forth in SC Regulation 61-62.70.7. |

## PART 5.0b EMISSION UNIT REQUIREMENTS (B-Area)

### A. EMISSION UNIT DESCRIPTION (B-Area)

Table 5.1 is a description of the emission unit located in B-Area.

*TABLE 5.1* **EMISSION UNITS (B-Area)**

| Unit ID | Unit Description | Control Device Description |
|---|---|---|
| B-001 | 735-1B Laboratory Hot Water Heater/Boiler #1 | None |
| B-002 | 735-1B Laboratory Hot Water Heater/Boiler #2 | None |
| B-003 | 735-1B Laboratory Hot Water Heater/Boiler #3 | None |
| B-004 | **VOID** - 735-1B Fuel Oil Storage Tank #1; NSPS Subpart Kb | None |
| B-005 | **VOID** - 735-1B Fuel Oil Storage Tank #2; NSPS Subpart Kb | None |

### B. CONTROL DEVICE DESCRIPTION (B-Area)

No control devices located in B-Area.

### C. EQUIPMENT DESCRIPTION (B-Area)

A description of the equipment located in B-Area is provided in the following tables:

*TABLE 5.2* **UNIT IDs B-001 thru B-003**

| Equipment ID | Equipment Description | Installation Date | Control Device ID | Stack ID |
|---|---|---|---|---|
| 110B | Boiler #1 rated at $3.897 \times 10^6$ BTU/hr | 11/2000 | None | BQH0001 |
| 111B | Boiler #2 rated at $3.897 \times 10^6$ BTU/hr | 11/2000 | None | BQH0001 |
| 112B | Boiler #3 rated at $3.897 \times 10^6$ BTU/hr | 11/2000 | None | BQH0001 |

*TABLE 5.3* **UNIT IDs B-004 thru B-005 - VOID**

### D. EMISSION LIMITS AND STANDARDS (B-Area)

Table 5.4 contains a summary of the emission limit for the emission unit in B-Area.

*TABLE 5.4* **EMISSION LIMITS AND STANDARDS (B-Area)**

| Unit ID | Pollutant | Limit/ Standard | Reference Method | Regulation | State Only | Condition Number |
|---|---|---|---|---|---|---|
| B-001 thru B-003 | PM | 0.6 lb/$10^6$ BTU | 5 | SC Regulation 61-62.5 Std. 1, Sect. II | No | b5.E.1 |
| B-001 thru B-003 | $SO_2$ | 3.5 lb/$10^6$ BTU | 6 or 6c | SC Regulation 61-62.5 Std. 1, Sect. III | No | b5.E.1 |
| B-001 thru B-003 | Opacity | 20% | 9 | SC Regulation 61-62.5 Std. 1, Sect. I | No | b5.E.2 |

The maximum allowable emission limits above are derived from the various Federal and State regulations that govern the operation of this type of source. All applicable emission limits and corresponding regulations are listed above. Additional operating requirements which may be more stringent than those above are contained in Part 4.0 or Part 7.0 of this permit or Part 6.0 in this Area-specific section.

## E. EMISSION UNIT CONDITIONS (B-Area)

| Condition Number | Conditions |
|---|---|
| b5.E.1 | The allowable discharge of particulate matter (PM) resulting from fuel burning emission units shall be limited to 0.6 lb/$10^6$ BTU. The maximum allowable sulfur dioxide (SOx) emission from fuel burning emission units located in a Class II Area shall not exceed 3.5 lb/$10^6$ BTU. |
| b5.E.2 | The boilers shall not discharge into the ambient air smoke that exceeds an opacity of 20%. The owner/operator 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. For the opacity standards set forth above to not apply during startup or shutdown, the owner/operator shall, for a period of at least five (5) years maintain a log of the time, magnitude, duration and any other pertinent information to determine periods of startup and shutdown and make these records available to a Department representative upon request. |

## PART 6.0b MONITORING AND REPORTING REQUIREMENTS (B-Area)

[SC Regulation 61-62.1, Section II]; [SC Regulation 61-62.70.6(a)(3)(i)(B)]

## A. MONITORING AND REPORTING (B-Area)

Table 6.1 contains a summary of the monitoring and reporting required of B-Area.

*TABLE 6.1* MONITORING AND REPORTING (B-Area)

| Unit ID | Pollutant/ Parameter | Limit | Required Monitoring | Monitoring Frequency | Reporting Frequency | Condition Number |
|---|---|---|---|---|---|---|
| B-001 thru B-003 | Fuel Specifications | $\leq$ 0.5% sulfur (by weight) | Recordkeeping | See condition | Annual | b6.B.1 |

## B. MONITORING AND REPORTING CONDITIONS (B-Area)

| Condition Number | Conditions |
|---|---|
| b6.B.1 | All boilers in the tables above are permitted to burn only #2 fuel oil as a fuel. The use of any other substances as fuel is prohibited without prior written approval from the Bureau of Air Quality. Fuel oil sulfur content shall be less than or equal to 0.5% percent by weight. Acceptable fuel oil certification can be ensured by following Department guidance entitled "Guidance for Fuel Oil Certifications" issued on May 19, 2000 and any subsequent revisions. Fuel supplier certification shall consist of (a) the name of the oil supplier, and (b) a statement from the oil supplier that the oil complies with the specifications for fuel oil #2, as defined by the American Society for Testing Materials in ASTM Method D396-98. Annual reports of fuel oil certification, including all recorded parameters and calculated values, shall be submitted to the address specified in condition 4.B.15 postmarked no later than 30 calendar days after the end of the reporting period. A letter summarizing all batches of oil received on an annual basis from the site fuel oil supplier stating that all the #2 fuel oil supplied to the site will meet the specifications stated above will satisfy the documentation and reporting requirement. |

## PART 5.0c EMISSION UNIT REQUIREMENTS (C-Area)

No emission units are located in C-Area at this time. See Attachment B for a list of Insignificant Activities located in C-Area.

## PART 6.0c MONITORING AND REPORTING REQUIREMENTS (C-Area)

[SC Regulation 61-62.1, Section II]; [SC Regulation 61-62.70.6(a)(3)(i)(B)]

No monitoring, reporting or recordkeeping is required in C-Area at this time. See Attachment B for a list of Insignificant Activities located in C-Area.

## PART 5.0d EMISSION UNIT REQUIREMENTS (D-Area)

The D-Area Powerhouse is covered under BAQ Permit #TV-0080-0044. See Attachment B for a list of Insignificant Activities located in D-Area.

## PART 6.0d MONITORING AND REPORTING REQUIREMENTS (D-Area)

[SC Regulation 61-62.1, Section II]; [SC Regulation 61-62.70.6(a)(3)(i)(B)]

The D-Area Powerhouse is covered under BAQ Permit #TV-0080-0044. See Attachment B for a list of Insignificant Activities located in D-Area.

## PART 5.0e EMISSION UNIT REQUIREMENTS (E-Area)

No emission units are located in E-Area at this time. See Attachment B for a list of Insignificant Activities located in E-Area.

## PART 6.0e MONITORING AND REPORTING REQUIREMENTS (E-Area)

[SC Regulation 61-62.1, Section II]; [SC Regulation 61-62.70.6(a)(3)(i)(B)]

No monitoring, reporting or recordkeeping is required in E-Area at this time. See Attachment B for a list of Insignificant Activities located in E-Area.

# PART 5.0f EMISSION UNIT REQUIREMENTS (F-Area)

## A. EMISSION UNIT DESCRIPTION (F-Area)

Table 5.1 is a description of emission units located in F-Area.

*TABLE 5.1* **EMISSION UNITS (F-Area)**

| Unit ID | Unit Description | Control Device Description |
|---|---|---|
| F-001 | **VOID** – 772-F Process Control Laboratory | **HEPA Filters (VOID):** H998, H999, P001, P002, P003 & P004 |
| F-002 | F Canyon | **HEPA Filters:** H706, H707 & H708; **Sand Filters (VOID):** N006; **Sand Filters:** N007 |
| F-003 | **VOID** – FB Line | **HEPA Filters (VOID):** H709, H710 & H783; **Sand Filters (VOID):** N006; **Sand Filters:** N007 |
| F-004 | **VOID** – 221-F Emergency Diesel Generator | None |
| F-005 | **VOID** – 254-5F Production Diesel Fuel Tank #1; NSPS Subpart Kb | None |
| F-006 | **VOID** – 254-5F Production Diesel Fuel Tank #2; NSPS Subpart Kb | None |
| F-007 | **VOID** – 211-F Nitric Acid Tanks | None |
| F-008 | **VOID** – 254-13F Production Diesel Engine #1 | None |
| F-009 | **VOID** – 254-13F Production Diesel Engine #2 | None |
| F-010 | **VOID** – 200-F Emergency Diesel Generator | None |

## B. CONTROL DEVICE DESCRIPTION (F-Area)

Table 5.2 is a description of control devices located in F-Area.

*TABLE 5.2* **CONTROL DEVICES (F-Area)**

| Control Device ID | Control Device Description | Installation Date | Pollutant(s) Controlled |
|---|---|---|---|
| H706 | HEPA Filter | 1/1955 | Radionuclides |
| H707 | HEPA Filter | 1/1955 | Radionuclides |
| H708 | HEPA Filter | 1/1955 | Radionuclides |
| N006 | **VOID** – Sand Filter | 1/1953 | Radionuclides |
| N007 | Sand Filter | 1/1976 | Radionuclides |
| H709 | **VOID** – HEPA Filter | 1/1990 | Radionuclides |
| H710 | **VOID** – HEPA Filter | 3/1988 | Radionuclides |
| H783 | **VOID** – HEPA Filter | 4/1995 | Radionuclides |

## C. EQUIPMENT DESCRIPTION (F-Area)

A description of the equipment located in F-Area is provided in the following tables:

### *TABLE 5.3* UNIT ID F-001 - VOID

| *TABLE 5.4* UNIT ID F-002 - F-Canyon | | | | |
|---|---|---|---|---|
| **Equipment ID** | **Equipment Description** | **Installation Date** | **Control Device ID** | **Stack ID** |
| 66AF | **VOID** - Dissolving | 1/1955 | None | FSP0023 |
| 84CF | **VOID** - Head End | 1/1955 | N006 & N007 | FSP0023 |
| 82CF | **VOID** - First Cycle | 1/1955 | N006 & N007 | FSP0023 |
| 83CF | **VOID** - Second Uranium Cycle | 1/1955 | N006 & N007 | FSP0023 |
| 81CF | **VOID** - Second Plutonium Cycle | 1/1955 | N006 & N007 | FSP0023 |
| 48CF | **VOID** - Solvent Recovery | 1/1955 | N006 & N007 | FSP0023 |
| 47CF | **VOID** - Low Activity Waste | 1/1955 | N006 & N007 | FSP0023 |
| 46CF | **VOID** - High Activity Waste | 1/1955 | N006 & N007 | FSP0023 |
| 45CF | **VOID** - Acid Recovery | 1/1955 | N006 & N007 | FSP0023 |
| 99CF | **VOID** - Lab Waste | 1/1955 | N006 & N007 | FSP0023 |
| 44CF | **VOID** - GP Evaporator | 1/1955 | N006 & N007 | FSP0023 |
| 68AF | **VOID** - Segregated Solvent | 1/1955 | N006 & N007 | FSP0023 |
| 78CF | **VOID** - Cold Feed, 3rd Level | 1/1955 | N006 & N007 | FSP0023 |
| 77CF | Canyon Cell Exhaust | 1/1955 | H706, H707 & H708 | FSP0023 |
| 76CF | **VOID** - Sump Exhaust | 1/1955 | N006 & N007 | FSP0023 |
| 75CF | **VOID** - Waste & Water Handling | 1/1955 | N006 & N007 | FSP0023 |
| 74CF | **VOID** - Denitration | 1/1955 | N006 & N007 | FSP0023 |

### *TABLE 5.5* UNIT ID F-003 - VOID

### *TABLE 5.6* UNIT ID F-004 - VOID

### *TABLE 5.7* UNIT IDs F-005 & F-006 - VOID

### *TABLE 5.8* UNIT ID F-007- VOID

### *TABLE 5.9* UNIT IDs F-008 through F-010 -VOID

## D. EMISSION LIMITS AND STANDARDS (F-Area)

Table 5.10 contains a summary of the emission limit for the emission unit in F-Area.

| *TABLE 5.10* EMISSION LIMITS AND STANDARDS (F-Area) | | | | | | |
|---|---|---|---|---|---|---|
| **Unit ID** | **Pollutant/ Parameter** | **Limit/ Standard** | **Reference Method** | **Regulation** | **State Only** | **Condition Number** |
| F-002 | PM/Opacity | See condition | See condition | SC Regulation 61-62.5, Std. 4 | No | 4.B.30 |

| *TABLE 5.10* EMISSION LIMITS AND STANDARDS (F-Area) | | | | | | |
|---|---|---|---|---|---|---|
| **Unit ID** | **Pollutant/ Parameter** | **Limit/ Standard** | **Reference Method** | **Regulation** | **State Only** | **Condition Number** |
| F-002 | Opacity | 40% | 9 | SC Regulation 61-62.5, Std. 4, Sect. IX | No | f5.E.1 |

The maximum allowable emission limits above are derived from the various Federal and State regulations that govern the operation of this type of source. All applicable emission limits and corresponding regulations are listed above. Additional operating requirements which may be more stringent than those above are contained in Part 4.0 and Part 7.0 of this permit or Part 6.0 in this Area-specific section.

## E. EMISSION UNIT CONDITIONS (F-Area)

| Condition Number | Conditions |
|---|---|
| f5.E.1 | In accordance with SC Regulation 61-62.5, Standard No. 4 - Emissions from Process Industries, Section IX - Visible Emissions (Where Not Specified Elsewhere), where construction or modification began on or before December 31, 1985, emissions (including fugitive emissions) shall not exhibit an opacity greater than 40%. |

# PART 6.0f MONITORING AND REPORTING REQUIREMENTS (F-Area)

[SC Regulation 61-62.1, Section II]; [SC Regulation 61-62.70.6(a)(3)(i)(B)]

## A. MONITORING AND REPORTING (F-Area)

Table 6.1 contains summaries of the monitoring and reporting required of F-Area.

| *TABLE 6.1* MONITORING AND REPORTING (F-Area) | | | | | | |
|---|---|---|---|---|---|---|
| **Unit ID** | **Pollutant/ Parameter** | **Limit** | **Required Monitoring** | **Monitoring Frequency** | **Reporting Frequency** | **Condition Number** |
| F-002 | Effluent Flow Rates | N/A | Continuous Monitor | Continuous | Refer to condition | f6.B.1 |
| F-002 | Relative Accuracy (RA) | N/A | Performance Test | Semiannual | Refer to condition | f6.B.2 |
| F-002 | Radionuclides | N/A | Continuous Monitor | Continuous | Onsite** | f6.B.3 |
| F-002 | Radionuclides | 10 mrem/yr | Computer Model | Annual | By June 30 | f6.B.4 & 4.B.12 |
| F-002 | Radionuclides | N/A | QAPP | Refer to condition | | f6.B.5 & f6.B.6 |

N/A = Not Applicable

** Onsite = Facility shall keep records on site. Semiannual notification that the required monitoring is being completed as specified shall be submitted to the address specified in condition 4.B.15 in accordance with SC Regulation 61-62.70.6(a)(3)(iii)(A).

## B. MONITORING AND REPORTING CONDITIONS (F-Area)

| Condition Number | Conditions |
|---|---|
| f6.B.1 | Effluent flow shall be continuously monitored with a multiple point flow measurement system. The flow measurement system shall be initially certified in accordance with the provision of 40 CFR 52 Appendix E within ninety (90) days of startup for a new source, restart of an existing source or hot wire anemometer installation for an existing source. A report shall be submitted in accordance with condition 10 of this section within thirty (30) days after the certification test. |
| f6.B.2 | On a semiannual basis, the permittee shall perform and report to the BAQ results of continuous measurement system performance tests. The permittee shall verify the continuous gas volumetric flow rate measurement system performance per Relative Accuracy (RA) test procedures described in Appendix E of 40 CFR 52. Use of alternative methods must have prior approval from the BAQ. This report shall be submitted within thirty (30) days following the end of the system performance test. The continuous measurement system shall be recalibrated when test results are above 10 percent. The permittee will have the option of skipping one semiannual RA test whenever previous test results indicate an RA of less than or equal to 7.5 percent. |
| f6.B.3 | The effluent stream shall be directly monitored continuously with an in-line detector or representative samples of the effluent stream shall be withdrawn continuously from the sampling site following the guidance presented in ANSI N13.1 - 1969, "Guide to Sampling Airborne Radioactive Materials in Nuclear Facilities" (including the guidance presented in Appendix A of ANSI N13.1). Alternative monitoring/sampling methods may be used with BAQ approval. Single point sampling using shrouded probe technology has been approved by US EPA subject to specified criteria defined in the approval letter from US EPA (Reference letter from M.D. Nichols to R.F. Pelletier dated 11/21/94). |
| f6.B.4 | To determine compliance with the standard, radionuclide emissions shall be determined and effective dose equivalent values to members of the public calculated using US EPA approved sampling procedures, computer models CAP-88, or other procedures for which US EPA has granted prior approval. The permittee shall submit an annual report to US EPA headquarters, to US EPA Region IV and to the address specified in condition 4.B.26 by June 30 which includes the results of the monitoring and the dose calculations for the previous calendar year. |
| f6.B.5 | The permittee shall follow the QAPP initially approved by the US EPA in February 1993 and as subsequently amended. The US EPA has determined that this plan meets the performance requirements as outlined in 40 CFR 61, Appendix B, Method 114, Section 4. Amendment requirements and procedures are outlined in the QAPP. |
| f6.B.6 | Radionuclides shall be collected and measured using procedures based on the principles of measurement described in 40 CFR Part 61, Appendix B Method 114. Use of methods based on principles of measurement different from those described in Appendix B, Method 114 must have prior approval from the BAQ. EPA retains the right to approve the use of methods based on principles of measurement different from those described in Appendix B, Method 114. |
| f6.B.7 | <Void> |
| f6.B.8 | <Void> |
| f6.B.9 | All notifications, reports, and correspondence with respect to NESHAP-radionuclide emissions and information shall be submitted to the address specified in condition 4.B.26, and correspondence that does contain classified data shall be retained on file at the Savannah River Site. The BAQ Division Director of Air Toxics, Emissions Inventory and Modelingshall be notified when documents containing classified data are placed on file so that arrangements can be made for a properly cleared representative to review the material as necessary. |

# PART 5.0g EMISSION UNIT REQUIREMENTS (G-Area)

## A. EMISSION UNIT DESCRIPTION (G-Area)

Table 5.1 is a description of emission units located in G-Area.

| *TABLE 5.1* EMISSION UNITS (G-Area) | | |
|---|---|---|
| **Unit ID** | **Unit Description** | **Control Device Description** |
| G-001 | **VOID** - 654-G Emergency Diesel Generator | None |
| G-002 | **VOID** - Soil Vapor Extraction (SVE) units in the Chemicals, Metals and Pesticides (CMP) Pits | None |
| G-003 | **VOID** - 683-3G Mobile Soil Vapor Extraction Unit | None |
| G-004 | Soil Vapor Extraction Units (SVEU) | None |

## B. CONTROL DEVICE DESCRIPTION (G-Area)

No control devices located in G-Area.

## C. EQUIPMENT DESCRIPTION (G-Area)

A description of the equipment located in G-Area is provided in the following tables:

*TABLE 5.2* **UNIT ID G-001 - VOID**

*TABLE 5.3* **UNIT ID G-002 – VOID**

*TABLE 5.4* **UNIT ID G-003 - VOID**

| *TABLE 5.5* UNIT ID G-004 - Soil Vapor Extraction Units | | | | |
|---|---|---|---|---|
| **Equipment ID** | **Equipment Description** | **Installation Date** | **Control Device ID** | **Stack ID** |
| 224C | Soil Vapor Extraction Unit | 10/1999 | None | CEP0001 |
| 288G | 683-1G Soil Vapor Extraction Unit B (SVE-B) exhausting contaminated vapors at a rate of 1000 scfm | 2/2001* | None | GEP0017 |
| 289G | 683-2G Soil Vapor Extraction Unit C (SVE-C) exhausting contaminated vapors at a rate of 800 scfm | 3/2001 | None | GEP0018 |
| 312G | 683-3G Mobile Soil Vapor Extraction exhausting contaminated vapors at 700 scfm | 7/2005 | None | GEP0031 |
| 589M | Soil Vapor Extraction Unit | 11/1994 | None | MEP0005 |
| 321G | Soil Vapor Extraction Unit | 7/2006 | None | GEP0032 |
| 322G | Soil Vapor Extraction Unit | ** | None | GEP0032 |
| 323G | Soil Vapor Extraction Unit | ** | None | GEP0032 |
| 324G | Soil Vapor Extraction Unit | ** | None | GEP0032 |
| 325G | Soil Vapor Extraction Unit | ** | None | GEP0032 |
| 333G | CMP Air Stripper | 2006 | None | GEP0032 |

* Unit began operation in January 2002.

** This unit has not yet been installed construction permit 0080-0041G-CU issued on 07/29/2004 for these.

## D. EMISSION LIMITS AND STANDARDS (G-Area)

Table 5.5 contains a summary of emission limits & standards for emission units located in G-Area.

*TABLE 5.5* **EMISSION LIMITS AND STANDARDS (G-Area)**

| Unit ID | Pollutant | Limit/ Standard | Reference Method | Regulation | State Only | Condition Number |
|---|---|---|---|---|---|---|
| G-004 | Opacity | 20% | 9 | SC Regulation 61-62.5, Std 4, Sect. IX | No | g5.E.1 |

The maximum allowable emission limits above are derived from the various Federal and State regulations that govern the operation of this type of source. All applicable emission limits and corresponding regulations are listed above. Additional operating requirements which may be more stringent than those above are contained in Part 4.0 and Part 7.0 of this permit or Part 6.0 in this Area-specific section of this permit.

## E. EMISSION UNIT CONDITIONS (G-Area)

| Condition Number | Conditions |
|---|---|
| g5.E.1 | In accordance with SC Regulation 61-62.5, Standard No. 4 - Emissions from Process Industries, Section IX - Visible Emissions (Where Not Specified Elsewhere), where construction or modification began after December 31, 1985, emissions (including fugitive emissions) shall not exhibit an opacity greater than 20%. |

# PART 6.0g MONITORING AND REPORTING REQUIREMENTS (G-Area)

[SC Regulation 61-62.1, Section II]; [SC Regulation 61-62.70.6(a)(3)(i)(B)]

## A. MONITORING AND REPORTING (G-Area)

Table 6.1 contains summaries of the monitoring and reporting required of G-Area.

*TABLE 6.1* **MONITORING AND REPORTING (G-Area)**

| Unit ID | Pollutant/ Parameter | Limit | Required Monitoring | Monitoring Frequency | Reporting Frequency | Condition Number |
|---|---|---|---|---|---|---|
| G-004 | VOC Emissions | ≤ 39.9 TPY* | Recordkeeping | Monthly | Quarterly | g6.B.1 through g6.B.6 |
| G-004 | VOC Emissions | N/A | VOC Sampling | Refer to Condition | Refer to Condition | g6.B.1 through g6.B.6 |

*12-month rolling sum

## B. MONITORING AND REPORTING CONDITIONS (G-Area)

| Condition Number | Conditions |
|---|---|
| g6.B.1 | Savannah River Site shall determine the VOC emissions from these sources as follows:<br>a. For measured emissions for the measured constituents are greater than or equal to 70% of the maximum potential emissions for that unit, then sampling is performed on a monthly basis.<br>b. For measured emissions for the constituents are less than or equal to 69% of the maximum potential emissions for that unit, then sampling is performed every other month (bimonthly).<br>c. For measured emissions for measured constituents are less than or equal to 49% of the maximum potential emissions for that unit, then sampling is performed on a quarterly basis.<br>d. For measured emissions for measured constituents are less than or equal to 29% of the maximum potential emissions for that unit, then sampling is performed on a semi annually basis.<br><br>Then use this data to calculate a twelve (12) month rolling sum for that month in order to ensure compliance with these sources' total VOC limit of less than or equal to 9.11 lb/hr and 39.9 TPY. A quarterly report summarizing the monthly VOC emissions, the monitoring frequency of the measured constituents, and associated twelve (12) month rolling sum shall be submitted to the address listed below, postmarked no later than thirty (30) calendar days after the end of the reporting period. The following factors used to determine the lb/hr and TPY limits shall be included in the report: Stack and/or water sampling results, hours of operation, and system flow rates for air and/or water. All submittals required by this condition shall be sent to following address: Manager, Technical Management Section, SC DHEC – BAQ, 2600 Bull Street, Columbia, SC 29201. |
| g6.B.2 | The air and water sampling will be performed utilizing an approved Modified Method 18 (air) – Measurement of Gaseous Organic Compound Emissions by Gas Chromatography (See A.A. Gibson letter to M.B. Hughes, dated 03/08/2004); Method 8260B (water) – Measurement of VOCs by Gas Chromatography/Mass Spectrometry. Air and water sampling frequencies shall be completed once per month in order to re-evaluate the validity of the emission factor. In addition the facility shall perform an annual air audit sample analysis by March 31 and submit those results to the Manager of the Source Evaluation Section, Bureau of Air Quality. If the facility desires to change the technique or the frequency of the technique used to calculate the relevant emission factor, it will be necessary to revise the permit through the permit modification procedures found at SC Regulation 61-62.70.7. |
| g6.B.3 | Prior to the startup of each SVEU listed in ID G-004, the Manager of the Source Evaluation Section, BAQ, shall be notified in writing of the specific sampling protocol, as described in condition g6.B.2, which shall be performed on these units. This sampling protocol, with appropriate supporting documentation, shall be submitted to the following address: Manager, Source Evaluation Section, SC DHEC - BAQ, 2600 Bull Street, Columbia, SC 29201. If the sampling protocol is the same as other SVEU units in operation, that have protocols already approved by the Source Evaluation Section, a letter stating this may be sent in lieu of the sampling protocol. |
| g6.B.4 | All records and calculations shall be kept onsite for a period of five (5) years and made available to Department personnel upon request. Any alterations which may affect the nature of VOC emissions from this source must be approved by the Bureau and may need to be incorporated into the permit as set forth in SC Regulation 61-62.70.7. |
| g6.B.5 | No more than ten (10) portable soil vapor extraction units may be operated at one time. These emission units shall not be operated within 600 feet of the Savannah River Site's boundary. (State Only) |
| g6.B.6 | Prior to the startup and/or movement of any one of these ten (10) portable soil vapor extraction units. The Director of Engineering Services Division and the local Regional EQC Office shall be notified of the status/placement of these units. |

## PART 5.0h EMISSION UNIT REQUIREMENTS (H-Area)

### A. EMISSION UNIT DESCRIPTION (H-Area)

Table 5.1 is a description of emission units in H-Area.

*TABLE 5.1* **EMISSION UNITS (H-Area)**

| Unit ID | Unit Description | Control Device Description |
|---|---|---|
| H-001 | H Canyon | **HEPA Filters:** H097, H098 & H099; **Sand Filters:** N002 & N003 |
| H-002 | HB Line | **Sand Filters:** N002 & N003 |
| H-003 | **VOID** - 254-5H Production Diesel Tank #2; NSPS Subpart Kb | None |
| H-004 | **VOID** - 254-5H Production Diesel Tank #1; NSPS Subpart Kb | None |
| H-005 | **VOID** - 232-H Lines I and II | **Adsorber (VOID):** D026 |
| H-006 | **VOID** - 232-H Line III | **HEPA Filters (VOID):** H775, H776, P101 & P102 |
| H-007 | **VOID** - 234-H Reservoir Handling | **Adsorber (VOID):** D032 |
| H-008 | **VOID** - 238-H Reclamation Facility | None |
| H-009 | **VOID** - 233-H Loading Facility (LF) | **Adsorber (VOID):** D044 |
| H-010 | **VOID** - 261-H Consolidated Incinerator Facility (CIF) (Non-Functional – Retired In Place) | **HEPA Filter (VOID):** H997; **Scrubber (VOID)::** S100 (Non-Functional – Retired In Place) |
| H-011 | **VOID** - 262-H Fuel Oil Tank; NSPS Subpart Kb | None |
| H-012 | **VOID** - 607-33H Storage Tanks; NSPS Subpart Kb | **HEPA Filter (VOID):** P055 |
| H-013 | **VOID** - 242-25H Replacement HLW Evaporator | **HEPA Filters (VOID):** P058, P059 & P060 |
| H-014 | **VOID** - 221-H Emergency Diesel Generator | None |
| H-015 | 211-H Nitric Acid Tanks | None |
| H-016 | 284-H Stoker Boiler #1 | **Cyclones:** C015 & C016 |
| H-017 | 284-H Stoker Boiler #2 | **Cyclones:** C017 & C018 |
| H-018 | 284-H Stoker Boiler #3 | **Cyclones:** C019 & C020 |
| H-019 | 254-19H Production Diesel Engine #1 | None |
| H-020 | 254-19H Production Diesel Engine #2 | None |
| H-021 | **VOID** - 200-H Emergency Diesel Generator | None |

### B. CONTROL DEVICE DESCRIPTION (H-Area)

Table 5.2 is a description of control devices located in H-Area.

*TABLE 5.2* **CONTROL DEVICES (H-Area)**

| Control Device ID | Control Device Description | Installation Date | Pollutant(s) Controlled |
|---|---|---|---|
| H097 | HEPA Filter | 1/1955 | Radionuclides |
| H098 | HEPA Filter | 1/1955 | Radionuclides |
| H099 | HEPA Filter | 1/1955 | Radionuclides |
| N002 | Sand Filter | 1/1953 | Radionuclides |
| N003 | Sand Filter | 12/1976 | Radionuclides |
| H997 | **VOID** - HEPA Filter | 5/1995 | Radionuclides |

| *TABLE 5.2* CONTROL DEVICES (H-Area) | | | |
|---|---|---|---|
| **Control Device ID** | **Control Device Description** | **Installation Date** | **Pollutant(s) Controlled** |
| S100 | **VOID** - Scrubber, Cyclonic | 6/1995 | PM, SOx, $Cl_2$, & HCl |
| P055 | **VOID** - HEPA Filter | 8/1995 | PM, SOx, $Cl_2$, & HCl |
| C015 | Cyclone | 7/1975 | PM |
| C016 | Cyclone | 7/1975 | PM |
| C017 | Cyclone | 7/1975 | PM |
| C018 | Cyclone | 7/1975 | PM |
| C019 | Cyclone | 7/1975 | PM |
| C020 | Cyclone | 7/1975 | PM |

## C. EQUIPMENT DESCRIPTION (H-Area)

A description of the equipment located in H-Area is provided in the following tables:

| *TABLE 5.3* UNIT ID H-001 - H Canyon Process | | | | |
|---|---|---|---|---|
| **Equipment ID** | **Equipment Description** | **Installation Date** | **Control Device ID** | **Stack ID** |
| 99CH | Dissolving | 1/1955 | None | HSP0002 |
| 01DH | Head End | 1/1955 | N002 & N003 | HSP0002 |
| 02DH | First Cycle | 1/1955 | N002 & N003 | HSP0002 |
| 03DH | Second Uranium Cycle | 1/1955 | N002 & N003 | HSP0002 |
| 04DH | Second Neptunium | 1/1955 | N002 & N003 | HSP0002 |
| 05DH | Solvent Recovery | 1/1955 | N002 & N003 | HSP0002 |
| 06DH | Frames Waste Recovery | 1/1955 | N002 & N003 | HSP0002 |
| 07DH | Low Activity Waste | 1/1955 | N002 & N003 | HSP0002 |
| 09DH | Acid Recovery | 1/1955 | N002 & N003 | HSP0002 |
| 10DH | Rerun | 1/1955 | N002 & N003 | HSP0002 |
| 12DH | GP Evaporator | 1/1955 | N002 & N003 | HSP0002 |
| 20DH | Cold Feed, 3rd Level | 1/1955 | N002 & N003 | HSP0002 |
| 21DH | Canyon Cell Exhaust | 1/1955 | H097, H098 & H099 | HSP0002 |
| 22DH | Sump Exhaust | 1/1955 | N002 & N003 | HSP0002 |
| 23DH | Water Handling | 1/1955 | N002 & N003 | HSP0002 |
| 24DH | EU System | 1/1955 | N002 & N003 | HSP0002 |

| *TABLE 5.4* UNIT ID H-002 - HB Line | | | | |
|---|---|---|---|---|
| **Equipment ID** | **Equipment Description** | **Installation Date** | **Control Device ID** | **Stack ID** |
| 14DH | HBL Scrap Recovery | 1/1985 | N002 & N003 | HSP0002 |
| 15DH | HBL Neptunium Oxide | 1/1985 | N002 & N003 | HSP0002 |
| 16DH | HBL Plutonium Oxide | 1/1985 | N002 & N003 | HSP0002 |
| 17DH | HBL (New) Process Rooms | 1/1985 | N002 & N003 | HSP0002 |

***TABLE 5.5* UNIT IDs H-003 & H-004**

***TABLE 5.6* UNIT ID H-005 - VOID**

***TABLE 5.7* UNIT ID H-006 - VOID**

## *TABLE 5.8* UNIT ID H-007 - VOID

## *TABLE 5.9* UNIT ID H-008 - VOID

## *TABLE 5.10* UNIT ID H-009 – VOID

## *TABLE 5.11* UNIT ID H-010- VOID

## *TABLE 5.12* UNIT ID H-011 – VOID

## *TABLE 5.13* UNIT ID H-012 - VOID

## *TABLE 5.14* UNIT ID H-013 – VOID

## *TABLE 5.15* UNIT ID H-014 - VOID

*TABLE 5.16* UNIT ID H-015 - Nitric Acid Tanks (211-H)

| Equipment ID | Equipment Description | Installation Date | Control Device ID | Stack ID |
|---|---|---|---|---|
| 770H | Nitric Acid Storage Tank 32 (64%, 17,700 Gal) | 1/1953 | None | HST0036 |
| 772H | Nitric Acid Storage Tank 33 (51%, 17,700 Gal) | 1/1953 | None | HST0036 |
| 773H | Nitric Acid Storage Tank 34 (51%, 17,700 Gal) | 1/1953 | None | HST0036 |
| 774H | Nitric Acid Storage Tank 35 (51%, 17,700 Gal) | 1/1953 | None | HST0036 |

*TABLE 5.17* UNIT IDs H-016 thru H-018 - Stoker Boilers

| Equipment ID | Equipment Description | Installation Date | Control Device ID | Stack ID |
|---|---|---|---|---|
| 234H | 71.7 X $10^6$ BTU/hr Coal Fired Stoker Boiler | 1/1953 | C015 & C016 | HPF0001 |
| 235H | 71.7 X $10^6$ BTU/hr Coal Fired Stoker Boiler | 1/1953 | C017 & C018 | HPF0001 |
| 239H | 71.7 X $10^6$ BTU/hr Coal Fired Stoker Boiler | 1/1955 | C019 & C020 | HPF0002 |

*TABLE 5.18* UNIT IDs H-019 & H-020 - Production Diesels (254-19H)

| Equipment ID | Equipment Description | Installation Date | Control Device ID | Stack ID |
|---|---|---|---|---|
| 92EH | Diesel Generator (800kW) | 8/2000 | None | HSE0012 |
| 93EH | Diesel Generator (800kW) | 8/2000 | None | HSE0013 |

## *TABLE 5.19* UNIT ID H-021 - VOID

## D. EMISSION LIMITS AND STANDARDS (H-Area)

Table 5.20 contains summaries of emission limits and standards for emission units in H-Area.

*TABLE 5.20* **EMISSION LIMITS AND STANDARDS (H-Area)**

| Unit ID | Pollutant/ Parameter | Limit/ Standard | Reference Method | Regulation | State Only | Condition Number |
|---|---|---|---|---|---|---|
| H-001, H-002 | PM/Opacity | See condition | See condition | SC Regulation 61-62.5, Standard 4 | No | 4.B.30 |
| H-001, H-002, H-015 thru H-018 | Opacity | 40% | 9 | SC Regulation 61-62.5, Std. 4, Sect. IX | No | h5.E.1 |
| H-019 thru H020 | Opacity | 20% | 9 | SC Regulation 61-62.5, Std. 4, Sect. IX | No | h5.E.2 |
| H-016 thru H-018 | Opacity | 40% | 9 | SC Regulation 61-62.5 Std. 1, Sect. I | No | h5.E.9 |
| H-016 thru H-018 | PM | 0.6 lb/$10^6$ BTU | 5 | SC Regulation 61-62.5, Std. 1, Sect. II | No | h5.E.10 |
| H-016 thru H-018 | $SO_2$ | 3.5 lb/$10^6$ BTU | 6 | SC Regulation 61-62.5, Std. 1, Sect. III | No | h5.E.11 |

The maximum allowable emission limits above are derived from the various Federal and State regulations that govern the operation of this type of source. All applicable emission limits and corresponding regulations are listed above. Additional operating requirements which may be more stringent than those above are contained in Part 4.0 and Part 7.0 of this permit or Part 6.0 in this Area-specific section.

## E. EMISSION UNIT CONDITIONS (H-Area)

| Condition Number | Conditions |
|---|---|
| h5.E.1 | In accordance with SC Regulation 61-62.5, Standard No. 4 - Emissions from Process Industries, Section IX - Visible Emissions (Where Not Specified Elsewhere), where construction or modification began on or before December 31, 1985, emissions (including fugitive emissions) shall not exhibit an opacity greater than 40%. |
| h5.E.2 | In accordance with SC Regulation 61-62.5, Standard No. 4 - Emissions from Process Industries, Section IX - Visible Emissions (Where Not Specified Elsewhere), where construction or modification began after December 31, 1985, emissions (including fugitive emissions) shall not exhibit an opacity greater than 20%. |
| h5.E.3 thru h5.E.8 | <Void> |

| Condition Number | Conditions |
|---|---|
| h5.E.9 | The stoker boilers shall not discharge into the ambient air smoke which exceeds an opacity of 40%. The forty (40) percent opacity limit may be exceeded for sootblowing, but may not be exceeded for more than six (6) minutes in a one hour period nor be exceeded for more than a total of twenty-four (24) minutes in a twenty-four (24) hour period. Emissions caused by sootblowing shall not exceed sixty (60) percent opacity. The opacity standards set forth above do not apply during startup, shutdown or malfunction. The owner/operator 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. The owner/operator shall, for a period of at least five (5) years maintain a log of the time, magnitude, duration and any other pertinent information to determine periods of startup and shutdown and make these records available to a Department representative upon request. |
| h5.E.10 | The allowable discharge of particulate matter (PM) resulting from fuel burning emission units shall be limited to 0.6 lb/$10^6$ BTU. |
| h5.E.11 | The maximum allowable sulfur dioxide ($SO_2$) emission from fuel burning emission units located in a Class II Area shall not exceed 3.5 lb/$10^6$ BTU. |

## PART 6.0h MONITORING AND REPORTING REQUIREMENTS (H-Area)

[SC Regulation 61-62.1, Section II]; [SC Regulation 61-62.70.6(a)(3)(i)(B)]

### A. MONITORING AND REPORTING

Table 6.1 contains summaries of the monitoring and reporting required of H-Area.

*TABLE 6.1* MONITORING AND REPORTING (H-Area)

| Unit ID | Pollutant/ Parameter | Limit | Required Monitoring | Monitoring Frequency | Reporting Frequency | Condition Number |
|---|---|---|---|---|---|---|
| H-001, H-002 | Effluent Flow Rates | N/A | Continuous Monitor | Continuous | Refer to condition | h6.B.1 |
| H-001, H-002 | Relative Accuracy (RA) | N/A | Performance Test | Semiannual | Refer to condition | h6.B.2 |
| H-001, H-002 | Radionuclides | N/A | Continuous Monitor | Continuous | Onsite** | h6.B.3 |
| H-001, H-002 | Radionuclides | 10 mrem/yr | Computer Model | Annual | By June 30 | h6.B.4 & 4.B.12 |
| H-001, H-002 | Radionuclides | N/A | QAPP | Refer to condition | | h6.B.5 & h6.B.6 |
| H-016 thru H-018 | PM | 0.6 lb/$10^6$ BTU | Source Test | Biennial | Refer to condition | h6.B.31 |
| H-016 thru H-018 | $SO_2$ | 3.5 lb/$10^6$ BTU | Source Test | Biennial | Refer to condition | h6.B.31 |
| H-016 thru H-018 | Opacity | 40% | Source Test | Biennial | Refer to condition | h6.B.31 |
| H-016 thru H-018 | Fuel Type | Refer to condition | | | | h6.B.32 & h6.B.33 |
| H-016 thru H-018 | Startup and Shutdown | N/A | Recordkeeping | Refer to condition | Onsite** | h6.B.34 |
| H-019 thru H-020 | Fuel Oil Usage | As specified | Recordkeeping | See conditions | Onsite** | h6.B.35 4.B.25 |

| *TABLE 6.1* MONITORING AND REPORTING (H-Area) | | | | | | |
|---|---|---|---|---|---|---|
| **Unit ID** | **Pollutant/ Parameter** | **Limit** | **Required Monitoring** | **Monitoring Frequency** | **Reporting Frequency** | **Condition Number** |
| H-016 thru H-018 | Cyclone performance | N/A | Recordkeeping | Annual | See condition | 4.B.24 |
| H-016 thru H-020 | Visible Emissions | N/A | Recordkeeping | Daily | Semiannual | 7.A.1 |

* N/A = Not Applicable

** Onsite = Facility shall keep records on site. Semiannual notification that the required monitoring is being completed as specified shall be submitted to the address specified in condition 4.B.15 in accordance with SC Regulation 61-62.70.6(a)(3)(iii)(A).

## B. MONITORING AND REPORTING CONDITIONS (H-Area)

| Condition Number | Conditions |
|---|---|
| h6.B.1 | Effluent flow shall be continuously monitored with a multiple point flow measurement system. The flow measurement system shall be initially certified in accordance with the provision of 40 CFR 52 Appendix E within ninety (90) days of startup for a new source, restart of an existing source, or installation onto an existing source. A report shall be submitted in accordance with condition 36 of this section within thirty (30) days after the certification test. |
| h6.B.2 | On a semiannual basis, the permittee shall perform and report to the BAQ results of continuous measurement system performance tests. The permittee shall verify the continuous gas volumetric flow rate measurement system performance per Relative Accuracy (RA) test procedures described in Appendix E of 40 CFR 52. Use of alternative methods must have prior approval from the BAQ (Unit ID H-009 is approved to use tracer gas methods in place of US EPA Method 2). Pursuant to DHEC Letter dated 11/29/95 to M. D. Dukes, SRS shall be granted approval to use process knowledge for waste characterization rather than sampling and analysis of heterogeneous solid waste. The semiannual report shall be submitted within thirty (30) days following the end of the system performance test. The continuous measurement system shall be recalibrated when test results are above 10 percent. The permittee will have the option of skipping one semiannual RA test whenever previous test results indicate an RA of less than or equal to 7.5 percent. |
| h6.B.3 | The effluent stream shall be directly monitored continuously with an in-line detector or representative samples of the effluent stream shall be withdrawn continuously from the sampling site following the guidance presented in ANSI N13.1 - 1969, "Guide to Sampling Airborne Radioactive Materials in Nuclear Facilities" (including the guidance presented in Appendix A of ANSI N13.1). Alternative monitoring/sampling methods may be used with BAQ approval. Single point sampling using shrouded probe technology has been approved by US EPA subject to specified criteria defined in the approval letter from US EPA (Reference letter from M.D. Nichols to R.F. Pelletier dated 11/21/94). |
| h6.B.4 | To determine compliance with the standard, radionuclide emissions shall be determined and effective dose equivalent values to members of the public calculated using US EPA approved sampling procedures, computer models CAP-88, or other procedures for which US EPA has granted prior approval. The permittee shall submit an annual report to US EPA headquarters, to US EPA Region IV and to the address specified in condition 4.B.26 by June 30 which includes the results of the monitoring and the dose calculations for the previous calendar year. |
| h6.B.5 | The permittee shall follow the QAPP initially approved by the US EPA in February 1993 and as subsequently amended. The US EPA has determined that this plan meets the performance requirements as outlined in 40 CFR 61, Appendix B, Method 114, Section 4. Amendment requirements and procedures are outlined in the QAPP. |

<table>
<tr><th>Condition Number</th><th>Conditions</th></tr>
<tr><td>h6.B.6</td><td>Radionuclides shall be collected and measured using procedures based on the principles of measurement described in 40 CFR Part 61, Appendix B Method 114. Use of methods based on principles of measurement different from those described in Appendix B, Method 114 must have prior approval from the BAQ. EPA retains the right to approve the use of methods based on principles of measurement different from those described in Appendix B, Method 114.</td></tr>
<tr><td>h6.B.7 thru h6.B.30</td><td><Void></td></tr>
<tr><td>h6.B.31</td><td>Every two (2) years the permittee shall schedule tests for PM, $SO_2$ and opacity to demonstrate compliance with the standard. All tests shall be made by, or under the direction of, a person qualified by training and/or experience in the field of air pollution testing. All tests shall be conducted while the emission unit is operating at the expected maximum production rate or other production rate or operating conditions which would result in the highest emissions. Any production rate less than rated capacity may result in production limitations. The Manager of the Source Evaluation Section shall be notified at least two (2) weeks prior to conducting the stack test. Both the initial notification prior to testing and the final test reports must be submitted to the address specified in condition 4.B.27. The latter shall be submitted no later than thirty (30) days after the completion of on-site testing.</td></tr>
<tr><td>h6.B.32</td><td>The H-Area boilers are permitted to burn only coal with sulfur content less than or equal to 2.0% as fuel. Coal sulfur content shall be documented for all coal burned in the subject boilers. This shall be obtained by pulling a composite sample of coal being fed into the plant once per week and the samples analyzed by a laboratory. Records of coal sulfur content analyses shall be maintained on site for a period of at least five (5) years and shall be made available to a Department representative upon request. The use of any other substances as fuel is prohibited without prior written approval from the BAQ.</td></tr>
<tr><td>h6.B.33</td><td>Semiannual reports shall be submitted to the address specified in condition 4.B.15 postmarked no later than thirty (30) calendar days after the end of the reporting period. The report shall include a summary of relevant information obtained from the lab analyses performed as a result of the requirements set forth in condition 32 of this section.</td></tr>
<tr><td>h6.B.34</td><td>The permittee shall maintain a log of the time, magnitude, duration and any other pertinent information to determine periods of startup and shutdown and make such information available to the BAQ upon request.</td></tr>
<tr><td>h6.B.35</td><td>This diesel powered equipment shall comply with the facility wide limit as specified in condition 4.B.25. Records of fuel usage shall be maintained onsite and shall be made readily available to Department personnel upon request. Annual fuel usage rates for the non-exempt units in H-Area are not expected to exceed the following:
<table>
<tr><th>SRS ID</th><th>DESCRIPTION</th><th>BLDG</th><th>GAL/YR</th></tr>
<tr><td>HSE0009</td><td>1000 kW Emergency Diesel Generator</td><td>221-H</td><td>18,250</td></tr>
<tr><td>HSE0012</td><td>800 kW Production Diesel Generator</td><td>254-19H</td><td>287,220</td></tr>
<tr><td>HSE0013</td><td>800 kW Production Diesel Generator</td><td>254-19H</td><td>287,220</td></tr>
<tr><td>HSE0014</td><td>900 kW Emergency Diesel Generator</td><td>200-H</td><td>16,900</td></tr>
</table>
For units in excess of the allotted values as presented above, Savannah River Site shall clearly document the reason for each exceedance in the semiannual report required by condition 4.B.25. Under no circumstances shall the annual facility wide limit established by this condition be exceeded without first obtaining construction permits from the BAQ.</td></tr>
<tr><td>h6.B.36</td><td>All notifications, reports, and correspondence with respect to NESHAP-radionuclide emissions and information shall be submitted to the address specified in condition 4.B.26, and correspondence that does contain classified data shall be retained on file at the Savannah River Site. The BAQ Division Director of Air Toxics, Emissions Inventory and Modeling shall be notified when documents containing classified data are placed on file so that arrangements can be made for a properly cleared representative to review the material as necessary.</td></tr>
<tr><td>h6.B.37</td><td><Void></td></tr>
</table>

| Condition Number | Conditions |
|---|---|
| h6.B.38 | <Void> |
| h6.B.39 | <Void> |
| h6.B.40 | <Void> |
| h6.B.41 | <Void> |
| h6.B.42 | <Void> |

# PART 5.0k EMISSION UNIT REQUIREMENTS (K-Area)

## A. EMISSION UNIT DESCRIPTION (K-Area)

Table 5.1 is a description of emission units in K-Area.

| *TABLE 5.1* EMISSION UNITS (K-Area) | | |
|---|---|---|
| **Unit ID** | **Unit Description** | **Control Device Description** |
| K-001 | 76.8 X $10^6$ BTU/hr 184-10K Package Boiler; **NSPS Subpart Dc** | None |
| K-002 | 38.0 X $10^6$ BTU/hr 184-10K Package Boiler; **NSPS Subpart Dc** | None |
| K-003 | **VOID** - 184-2K Diesel Fuel Tank #1; **NSPS Subpart Kb** | None |
| K-004 | **VOID** - 184-2K Diesel Fuel Tank #2; **NSPS Subpart Kb** | None |

## B. CONTROL DEVICE DESCRIPTION (K-Area)

There are no control devices on the emission units in K-Area at this time.

## C. EQUIPMENT DESCRIPTION (K-Area)

A description of the equipment located in K-Area is provided in the following tables:

| *TABLE 5.2* UNIT IDs K-001 through K-004 | | | | |
|---|---|---|---|---|
| **Equipment ID** | **Equipment Description** | **Installation Date** | **Control Device ID** | **Stack ID** |
| 131K | 76.8 x $10^6$ BTU/hr #2 Fuel Oil Fired Package Boiler | 11/1990 | None | KPF0002 |
| 200K | 38.0 x $10^6$ BTU/hr #2 Fuel Oil Fired Package Boiler | 1/1992 | None | KPF0003 |
| 239K | **VOID** - Diesel Fuel Tank (30,000 Gallons) | 1/1993 | None | KPT0017 |
| 238K | **VOID** - Diesel Fuel Tank (30,000 Gallons) | 1/1993 | None | KPT0018 |

## D. EMISSION LIMITS AND STANDARDS (K-Area)

Table 5.3 contains summaries of emission limits and standards for emission units in K-Area.

| *TABLE 5.3* EMISSION LIMITS AND STANDARDS (K-Area) | | | | | | |
|---|---|---|---|---|---|---|
| **Unit ID** | **Pollutant** | **Limit/ Standard** | **Reference Method** | **Regulation** | **State Only** | **Condition Number** |
| K-001 & K-002 | PM | 0.6 lb/$10^6$ BTU | 5 | SC Regulation 61-62.5 Std. 1, Sect. II | No | k.E.1 |
| K-001 & K-002 | $SO_2$ | 0.5 lb/$10^6$ BTU | 6 or 6c | 40 CFR 60 Subpart Dc | No | k.E.1 |
| K-001 & K-002 | Sulfur content | $\leq$ 0.5% | 6 or 6c | 40 CFR 60 Subpart Dc | No | k.E.1 |
| K-001 & K-002 | Opacity | 20% | 9 | SC Regulation 61-62.5 Std. 1, Sect. I | No | k.E.2 |

The maximum allowable emission limits above are derived from the various Federal and State regulations that govern the operation of this type of source. All applicable emission limits and corresponding regulations are listed above. Additional operating requirements which may be more stringent than those above are contained in Part 4.0 or Part 7.0 of this permit or Part 6.0 in this Area-specific section.

## E. EMISSION UNIT CONDITIONS (K-Area)

| Condition Number | Conditions |
|---|---|
| k5.E.1 | The package boilers are subject to New Source Performance Standards (NSPS), 40 CFR 60 subparts A - General Provisions and Dc - Small Industrial, Commercial, Institutional Steam Generating Units, for which Construction, Reconstruction or Modification Commenced after June 9, 1989 as applicable. The maximum allowable sulfur dioxide ($SO_x$) emission from these units shall not exceed 3.5 lb/$10^6$ BTU. In accordance with 40 CFR 60 Subpart Dc, the permittee shall not combust oil in these emission units that contains greater than 0.5 weight percent sulfur *(40 CFR 60.42c(d))*. In accordance with SC Regulation 61-62.5, Standard I, Section II, the allowable discharges of particulate matter (PM) resulting from fuel burning emission units shall be limited to 0.6 lb/$10^6$ BTU. |
| k5.E.2 | The boilers shall not discharge into the ambient air smoke which exceeds an opacity of 20%. The twenty (20) percent opacity limit may be exceeded for sootblowing, but may not be exceeded for more than six (6) minutes in a one hour period nor be exceeded for more than a total of twenty-four (24) minutes in a twenty-four (24) hour period. As per 40 CFR 60.43c(c) this facility shall at no time exhibit an opacity greater then 20% (6-minute average), except for one 6-minute period per hour of not more than 27% opacity. The opacity standards set forth above do not apply during startup, shutdown or malfunction. Savannah River Site 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. The owner/operator shall, for a period of at least five (5) years maintain a log of the time, magnitude, duration and any other pertinent information to determine periods of startup and shutdown and make these records available to a Department representative upon request. |

## PART 6.0k MONITORING AND REPORTING REQUIREMENTS (K-Area)

[SC Regulation 61-62.1, Section II]; [SC Regulation 61-62.70.6(a)(3)(i)(B)]

### A. MONITORING AND REPORTING (K-Area)

Table 6.1 contains summaries of the monitoring and reporting required of K-Area.

*TABLE 6.1* **MONITORING AND REPORTING (K-Area)**

| Unit ID | Pollutant/Parameter | Limit | Required Monitoring | Monitoring Frequency | Reporting Frequency | Condition Number |
|---|---|---|---|---|---|---|
| K-001 & K-002 | Fuel Oil Certification | ≤ 0.5% sulfur (by weight) | Recordkeeping | Per shipment | Annual | k6.B.1 |
| K-001 & K-002 | Visible Emissions | N/A | Recordkeeping | Daily | Semiannual | 7.A.1 |

N/A = Not Applicable

### B. MONITORING AND REPORTING CONDITIONS (K-Area)

| Condition Number | Conditions |
|---|---|
| k6.B.1 | All boilers in the tables above are permitted to burn only #2 fuel oil as a fuel. The use of any other substances as fuel is prohibited without prior written approval from the Bureau of Air Quality. Fuel oil sulfur content shall be less than or equal to 0.5% percent by weight. Acceptable fuel oil certification can be ensured by following Department guidance entitled "Guidance for Fuel Oil Certifications" issued on May 19, 2000 and any subsequent revisions. Fuel supplier certification shall consist of (a) the name of the oil supplier, and (b) a statement from the oil supplier that the oil complies with the specifications for fuel oil #2, as defined by the American Society for Testing Materials in ASTM Method D396-98. Annual reports of fuel oil certification, including all recorded parameters and calculated values, shall be submitted to the address specified in condition 4.B.15 postmarked no later than 30 calendar days after the end of the reporting period. A letter summarizing all batches of oil received on an annual basis from the site fuel oil supplier stating that all the #2 fuel oil supplied to the site will meet the specifications stated above will satisfy the documentation and reporting requirement. |

## PART 5.0l EMISSION UNIT REQUIREMENTS (L-Area)

No emission units are located in L-Area at this time. See Attachment B for a list of Insignificant Activities located in L-Area.

## PART 6.0l MONITORING AND REPORTING REQUIREMENTS (L-Area)

[SC Regulation 61-62.1, Section II]; [SC Regulation 61-62.70.6(a)(3)(i)(B)]

No monitoring, reporting or recordkeeping is required in L-Area at this time. See Attachment B for a list of Insignificant Activities located in L-Area.

## PART 5.0m EMISSION UNIT REQUIREMENTS (M-Area)

### A. EMISSION UNIT DESCRIPTION (M-Area)

Table 5.1 is a description of emission units located in M-Area.

*TABLE 5.1* **EMISSION UNITS (M-Area)** (Revised 7/3/03)

| Unit ID | Unit Description | Control Device Description |
|---|---|---|
| M-001 | **VOID** – 782-4M Soil Vapor Extraction Unit | None |
| M-002 | **VOID** – 782-7M Soil Vapor Extraction Unit | None |
| M-003 | **VOID** – 782-3M Soil Vapor Extraction Unit | None |
| M-004 | **VOID** – 782-6M Soil Vapor Extraction Unit | None |
| M-005 | 323-M-1 Groundwater Air Stripper | None |
| M-006 | A-02 320 GPM Air Stripper | None |
| M-007 | Western Sector DUS Extraction System | None |

### B. CONTROL DEVICE DESCRIPTION

There are no control devices on the emissions units located in M-Area at this time.

### C. EQUIPMENT DESCRIPTION (M-Area)

A description of the equipment located in M-Area is provided in the following tables:

*TABLE 5.2* **UNIT IDs M-001 thru M-006 - M-Area ERD Units** (Revised 7/3/03)

| Equipment ID | Equipment Description | Installation Date | Control Device ID | Stack ID |
|---|---|---|---|---|
| 587M | **VOID** – Soil Vapor Extraction Unit | 9/1994 | None | MEP0003 |
| 588M | **VOID** – Soil Vapor Extraction Unit | 9/1993 | None | MEP0004 |
| 589M | **VOID** – Soil Vapor Extraction Unit | 11/1994 | None | MEP0005 |
| 590M | **VOID** – Soil Vapor Extraction Unit | 9/1994 | None | MEP2304 |
| 529M | 610 GPM Groundwater Air Stripper | 7/1984 | None | MEP2303 |
| 271G | 320 GPM Air Stripper | 2/1996 | None | GEP0001 |

| *TABLE 5.3* UNIT ID M-007 – Western Sector Dynamic Underground Stripping (DUS) | | | | |
|---|---|---|---|---|
| **Equipment ID** | **Equipment Description** | **Installation Date** | **Control Device ID** | **Stack ID** |
| 311G | Soil Vapor Extraction Unit | 4/2004 | None | GEP0030 |
| 611M | 782-4M Soil Vapor Extraction Unit | 04/2004 | None | GEP0030 |
| 612M | 782-6M Soil Vapor Extraction Unit | 04/2004 | None | GEP0030 |

## D. EMISSION LIMITS AND STANDARDS (M-Area)

Table 5.4 contains a summary of emission limits & standards for emission units located in M-Area.

| *TABLE 5.4* EMISSION LIMITS AND STANDARDS (M-Area) (Revised 7/3/03) | | | | | | |
|---|---|---|---|---|---|---|
| **Unit ID** | **Pollutant** | **Limit/ Standard** | **Reference Method** | **Regulation** | **State Only** | **Condition Number** |
| M-006, M-007 | Opacity | 20% | 9 | SC Regulation 61-62.5 Std. 4, Sect. IX | No | m5.E.1 |
| M-005 | Opacity | 40% | 9 | SC Regulation 61-62.5 Std. 4, Sect. IX | No | m5.E.2 |

The maximum allowable emission limits above are derived from the various Federal and State regulations that govern the operation of this type of source. All applicable emission limits and corresponding regulations are listed above. Additional operating requirements which may be more stringent than those above are contained in Part 4.0 and Part 7.0 of this permit or Part 6.0 in this Area-specific section.

## E. EMISSION UNIT CONDITIONS (M-Area)

| Condition Number | Conditions |
|---|---|
| m5.E.1 | In accordance with SC Regulation 61-62.5, Standard No. 4 - Emissions from Process Industries, Section IX - Visible Emissions (Where Not Specified Elsewhere), where construction or modification began after December 31, 1985, emissions (including fugitive emissions) shall not exhibit an opacity greater than 20%. |
| m5.E.2 | In accordance with SC Regulation 61-62.5, Standard No. 4 - Emissions from Process Industries, Section IX - Visible Emissions (Where Not Specified Elsewhere), where construction or modification began on or before December 31, 1985, emissions (including fugitive emissions) shall not exhibit an opacity greater than 40%. |

## PART 6.0m MONITORING AND REPORTING REQUIREMENTS (M-Area)

[SC Regulation 61-62.1, Section II]; [SC Regulation 61-62.70.6(a)(3)(i)(B)]

### A. MONITORING AND REPORTING (M-Area)

Table 6.1 contains summaries of the monitoring and reporting required of M-Area.

*TABLE 6.1* **MONITORING AND REPORTING (M-Area)** (Revised 7/3/03)

| Unit ID | Pollutant/ Parameter | Limit | Required Monitoring | Monitoring Frequency | Reporting Frequency | Condition Number |
|---|---|---|---|---|---|---|
| M-005, M-006 | VOC Emissions | 44.69 TPY | Recordkeeping | Monthly | Quarterly | m6.B.1 |
| M-005, M-006 | VOC Emissions | N/A | VOC Sampling | See condition | | m6.B.2 & m6.B.3 |
| M-007 | VOC Emissions | 39.4 TPY | Recordkeeping | Monthly | Quarterly | m6.B.4 |
| M-007 | VOC Emissions | N/A | VOC Sampling | See condition | | m6.B.5 & m6.B.6 |

N/A = Not Applicable

### B. MONITORING AND REPORTING CONDITIONS

| Condition Number | Conditions |
|---|---|
| m6.B.1 | Savannah River Site shall determine the VOC emissions from ID's M-005 and M-006 on a monthly basis, then use this data to calculate a twelve (12) month rolling sum for that month in order to ensure compliance with the sources' total VOC limit of 10.2 lb/hr and 44.69 TPY. A quarterly report summarizing the monthly VOC emissions and associated twelve (12) month rolling sum shall be submitted to the address specified in condition 4.B.15 postmarked no later than thirty (30) calendar days after the end of the reporting period. The following factors used to determine the lb/hr and TPY limits shall be included in the report: Stack and/or water sampling results, hours of operation, and system flow rates for air and/or water. |
| m6.B.2 | The air and water sampling will be performed utilizing the following EPA methods: An approved Modified Method 18 (air) – Measurement of Gaseous Organic Compound Emissions by Gas Chromatography (See A.A. Gibson to M.B. Hughes, dated 03/08/2004); Method 8260B (water) – Measurement of VOCs by Gas Chromatography/Mass Spectrometry. Air and water sampling frequencies shall be completed once per month in order to re-evaluate the validity of the emission factor. In addition the facility shall perform an annual air audit sample analysis by march 31 and submit those results to the Manager of the Source Evaluation Section, Bureau of Air Quality. If the facility desires to change the technique or the frequency of the technique used to calculate the relevant emission factor, it will be necessary to revise the permit through the permit modification procedures found at SC Regulation 61-62.70.7. |
| m6.B.3 | Within 30 days after the effective date of this Title V permit, the Manager of the Source Evaluation Section, BAQ, shall be notified of the specific sampling protocol as described in condition 2 of this section. This sampling protocol, with appropriate supporting documentation, shall be submitted to the address specified in condition 4.B.27. |
| m6.B.4 | Savannah River Site shall determine the VOC emissions from ID M-007 on a monthly basis, then use this data to calculate a twelve (12) month rolling sum for that month in order to ensure compliance with the sources' total VOC limit of 39.4 TPY. A quarterly report summarizing the monthly VOC emissions and associated twelve (12) month rolling sum shall be submitted to the address specified in condition 4.B.15 postmarked no later than thirty (30) calendar days after the end of the reporting period. The following factors used to determine the lb/hr and TPY limits shall be included in the report: Stack and/or water sampling results, hours of operation, and system flow rates for air and/or water. |

| Condition Number | Conditions |
|---|---|
| m6.B.5 | The air sampling will be performed utilizing an approved Modified Method 18 (air) – Measurement of Gaseous Organic Compound Emissions by Gas Chromatography (See A.A. Gibson letter to M.B. Hughes, dated 03/08/2004). Air sampling frequencies shall be completed once per month in order to re-evaluate the validity of the emission factor. In addition the facility shall perform an annual air audit sample analysis by March 31 and submit those results to the Manager of the Source Evaluation Section, Bureau of Air Quality. If the facility desires to change the technique or the frequency of the technique used to calculate the relevant emission factor, it will be necessary to revise the permit through the permit modification procedures found at SC Regulation 61-62.70.7. |
| m6.B.6 | Prior to the startup of facilities in this permit, the Manager of the Source Evaluation Section, BAQ, shall be notified in writing of the specific sampling protocol, as described in condition 5, that shall be performed on these units. This sampling protocol, with appropriate supporting documentation, shall be submitted to the address specified in condition 4.B.27. |
| m6.B.7 | All records and calculations shall be kept onsite for a period of five (5) years and made available to Department personnel upon request. Any alterations which may affect the nature of VOC emissions from this source must be approved by the Bureau and may need to be incorporated into the permit as set forth in SC Regulation 61-62.70.7. |

## PART 5.0n EMISSION UNIT REQUIREMENTS (N-Area)

### A. EMISSION UNIT DESCRIPTION (N-Area)

Table 5.1 is a description of emission units located at N-Area.

| *TABLE 5.1* EMISSION UNITS (N-Area) (Revised 7/3/03) | | |
|---|---|---|
| **Unit ID** | **Unit Description** | **Control Device Description** |
| N-001 | 725-1N Abrasive Blasting Operations | None |
| N-002 | **VOID** – 420N Portable Diesel Generator SRO 7835 | None |
| N-003 | **VOID** – 463N Portable Diesel Generator SRO 7850 | None |
| N-004 | **VOID** – 82CN Portable Diesel Generator SRO 2643 | None |
| N-005 | **VOID** – 83CN Portable Air Compressor SRO 2644 | None |
| N-006 | **VOID** – 76DN Portable Air Compressor SRO 5232 | None |
| N-007 | **VOID** – 77DN Portable Air Compressor SRO 5289 | None |
| N-008 | **VOID** – 78DN Portable Air Compressor SRO 6933 | None |
| N-009 | **VOID** – 32CN Portable Air Compressor SRO 6940 | None |
| N-010 | **VOID** – 31CN Portable Air Compressor SRO 6941 | None |
| N-011 | **VOID** – 28CN Portable Air Compressor SRO 6945 | None |
| N-012 | **VOID** – 50DN Portable Air Compressor SRO 7776 | None |
| N-013 | **VOID** – Mobile Air Compressor SRO 1330 | None |
| N-014 | **VOID** – Mobile Air Compressor SRO 1334 | None |
| N-015 | **VOID** – Mobile Air Compressor SRO 1345 | None |
| N-016 | **VOID** – Mobile Air Compressor SRO 1346 | None |
| N-017 | **VOID** – Mobile Air Compressor SRO 1347 | None |
| N-018 | **VOID** – Mobile Air Compressor SRO 1348 | None |
| N-019 | **VOID** – Mobile Air Compressor SRO 1349 | None |
| N-020 | **VOID** - Maxigrind Chipper SRO 1308 | None |
| N-021 | **VOID** – Portable Diesel Generator SRO 7947 | None |

| *TABLE 5.1* EMISSION UNITS (N-Area) (Revised 7/3/03) | | |
|---|---|---|
| **Unit ID** | **Unit Description** | **Control Device Description** |
| N-022 | **VOID** – Portable Diesel Generator SRO 7948 | None |
| N-023 | **VOID** – Portable Diesel Generator SRO 7949 | None |
| N-024 | **VOID** – Portable Diesel Generator SRO 7950 | None |
| N-025 | **VOID** – Mobile Emergency Diesel Generator SRO 6455 | None |
| N-026 | **VOID** – Mobile Emergency Diesel Generator SRO 5430 | None |
| N-027 | **VOID** – Mobile Emergency Diesel Generator SRO 5422 | None |
| N-028 | **VOID** – Mobile Diesel Generator SRO 1666 | None |
| N-029 | **VOID** – 710-14N Portable Air Compressor SRO 5262 | None |
| N-030 | **VOID** – 710-14N Portable Air Compressor SRO 5263 | None |
| N-031 | N-Area Mobile Diesel Equipment Pool | None |

## B. CONTROL DEVICE DESCRIPTION (N-Area)

There are no control devices on the emission units located in N-Area at this time.

## C. EQUIPMENT DESCRIPTION (N-Area)

A description of the equipment located at N-Area is provided in the following tables:

| *TABLE 5.2* UNIT ID N-001 - Abrasive Cleaning | | | | |
|---|---|---|---|---|
| **Equipment ID** | **Equipment Description** | **Installation Date** | **Control Device ID** | **Stack ID** |
| 370N | 725-1N Abrasive Cleaning Equipment | 1/1975 | None | NBJ0028 |

***TABLE 5.3* UNIT IDs N-002 thru N-004 – VOID**

***TABLE 5.4* UNIT IDs N-005 thru N-012 - VOID**

***TABLE 5.5* UNIT IDs N-013 thru N-019 – VOID**

***TABLE 5.6* UNIT ID N-020 - VOID**

***TABLE 5.7* UNIT IDs N-021 thru N-024 - VOID**

***TABLE 5.8* UNIT IDs N-025 thru N-028 – VOID**

***TABLE 5.9* UNIT IDs N-029 & N-030 - VOID**

| *TABLE 5.10* UNIT ID N-031 - Mobile Diesel Equipment Pool | | | | |
|---|---|---|---|---|
| **Equipment ID** | **Equipment Description** | **Installation Date** | **Control Device ID** | **Stack ID** |
| * | N-Area Mobile Diesel Equipment Pool | * | None | * |

*Refer to Attachment D for list.

## D. EMISSION LIMITS AND STANDARDS (N-Area)

Table 5.11 contains summaries of emission limits and standards for emission units N-Area.

*TABLE 5.11* **EMISSION LIMITS AND STANDARDS (N-Area)** (Revised 7/3/03)

| Unit ID | Pollutant | Limit/ Standard | Reference Method | Regulation | State Only | Condition Number |
|---|---|---|---|---|---|---|
| N-001 | Opacity | 40% | 9 | SC Regulation 61-62.5 Std. 4, Sect. IX | No | n5.E.1 |
| N-001 | PM | 5.73 lb/hr | 5 | SC Regulation 61-62.5 Std. 4, Sect. VIII | No | n5.E.2 |
| N-031 | Opacity | 20% | 9 | SC Regulation 61-62.5 Std. 4, Sect. IX | No | n5.E.3 |

The maximum allowable emission limits above are derived from the various Federal and State regulations that govern the operation of this type of source. All applicable emission limits and corresponding regulations are listed above. Additional operating requirements which may be more stringent than those above are contained in Part 4.0 and Part 7.0 of this permit or Part 6.0 in this Area-specific section.

## E. EMISSION UNIT CONDITIONS (N-Area)

| Condition Number | Conditions |
|---|---|
| n5.E.1 | In accordance with SC Regulation 61-62.5, Standard No. 4 - Emissions from Process Industries, Section IX - Visible Emissions (Where Not Specified Elsewhere), where construction or modification began on or before December 31, 1985, emissions (including fugitive emissions) shall not exhibit an opacity greater than 40%. |
| n5.E.2 | In accordance with SC Regulation 61-62.5, Standard No. 4 - Emissions from Process Industries, Section VIII - Other Manufacturing, particulate matter emissions shall be limited to the rate specified by use of the following equations:<br><br>For process weight rates less than or equal to 30 tons per hour ($E = 4.10P^{0.67}$);<br>For process weight rates greater than 30 tons per hour ($E = 55.0P^{0.11} - 40$);<br>where,<br>E = the allowable emission rate in pounds per hour, and<br>P = process weight rate in tons per hour.<br><br>As such, the allowable particulate matter emission limit for the abrasive blasting operation is 5.73 lb/hr at its nominal raw material feed rate of 1.649 tons per hour. |
| n5.E.3 | In accordance with SC Regulation 61-62.5, Standard No. 4 - Emissions from Process Industries, Section IX - Visible Emissions (Where Not Specified Elsewhere), where construction or modification began after December 31, 1985, emissions (including fugitive emissions) shall not exhibit an opacity greater than 20%. |

## PART 6.0n MONITORING AND REPORTING REQUIREMENTS (N-Area)

[SC Regulation 61-62.1, Section II]; [SC Regulation 61-62.70.6(a)(3)(i)(B)]

## A. MONITORING AND REPORTING (N-Area)

Table 6.1 contains a summary of the monitoring and reporting required at N-Area.

*TABLE 6.1* **MONITORING AND REPORTING (N-Area)** (Revised 7/3/03)

| Unit ID | Pollutant/ Parameter | Limit | Required Monitoring | Monitoring Frequency | Reporting Frequency | Condition Number |
|---|---|---|---|---|---|---|
| N-001 | Material usage/Hours of operation | 192,000 lb/yr & 1,040 hr/yr | Record keeping | N/A | Onsite** | n6.B.1 |
| N-031 | Fuel Oil Usage | As specified | Record keeping | See condition | Onsite** | n6.B.5 4.B.25 |
| N-031 | Operation of Emission Unit | 50 feet | N/A | N/A | N/A | n6.B.3 |
| N-001 | Visible Emissions | N/A | Record keeping | Daily | Semiannual | 7.A.1 |
| N-031 | Visible Emissions | N/A | Record keeping | Semiannual | Semiannual | 7.A.2 |

N/A = Not Applicable

** Onsite = Facility shall keep records on site. Semiannual notification that the required monitoring is being completed as specified shall be submitted to the address specified in condition 4.B.15 in accordance with SC Regulation 61-62.70.6(a)(3)(iii)(A).

## B. MONITORING AND REPORTING CONDITIONS (N-Area) (Revised 7/3/03)

| Condition Number | Conditions |
|---|---|
| n6.B.1 | Operation of the abrasive blasting unit is limited to 1,040 hours per year. In addition, total abrasive usage through the abrasive blast cleaner shall be limited to 192,000 pounds per year. Records of operating hours and abrasive usage shall be kept on-site and made available to BAQ personnel upon request. Operation shall be conducted in such a manner that a minimum of PM becomes airborne. In no case shall established ambient air quality standards be exceeded at or beyond the property line. Emissions of fugitive PM shall be controlled in such a manner and to the degree that it does not create an undesirable level of air pollution. The permittee shall not use any method of materials handling which will generate fugitive PM that is not fully described in the permit application. |
| n6.B.2 | <Void> |
| n6.B.3 | Sources in Table 5.1 above may not be operated closer than fifty (50) feet to the nearest site boundary. |
| n6.B.4 | The permittee shall keep records of all monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application and shall be made available to Department personnel upon request. 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 regulation or this permit. |

<table>
<tr><th>Condition Number</th><th>Conditions</th></tr>
<tr><td>n6.B.5</td><td>This diesel powered equipment shall comply with the facility wide limit as specified in condition 4.B.25. Records of fuel usage shall be maintained onsite and shall be made readily available to Department personnel upon request. Annual fuel usage rates for the non-exempt units in N-Area are not expected to exceed the following:
<table>
<tr><th>SRS ID</th><th>DESCRIPTION</th><th>BLDG</th><th>GAL/YR</th></tr>
<tr><td>GE0050</td><td>N-Area Mobile Diesel Equipment Pool</td><td>710-14N</td><td>731,110</td></tr>
</table>
For units in excess of the allotted values as presented above, Savannah River Site shall clearly document the reason for each exceedance in the semiannual report required by condition 4.B.25. Under no circumstances shall the annual facility wide limit established by this condition be exceeded without first</td></tr>
</table>

## PART 5.0p EMISSION UNIT REQUIREMENTS (P-Area)

No emission units are located in P-Area at this time. See Attachment B for a list of Insignificant Activities located in P-Area.

## PART 6.0p MONITORING AND REPORTING REQUIREMENTS (P-Area)

[SC Regulation 61-62.1, Section II]; [SC Regulation 61-62.70.6(a)(3)(i)(B)]

No monitoring, reporting or recordkeeping is required in P-Area at this time. See Attachment B for a list of Insignificant Activities located in P-Area.

## PART 5.0r EMISSION UNIT REQUIREMENTS (R-Area)

No emission units are located in R-Area at this time. See Attachment B for a list of Insignificant Activities located in R-Area.

## PART 6.0r MONITORING AND REPORTING REQUIREMENTS (R-Area)

[SC Regulation 61-62.1, Section II]; [SC Regulation 61-62.70.6(a)(3)(i)(B)]

No monitoring, reporting or recordkeeping is required in R-Area at this time. See Attachment B for a list of Insignificant Activities located in R-Area.

# PART 5.0s EMISSION UNIT REQUIREMENTS (S-Area)

## A. EMISSION UNIT DESCRIPTION (S-Area)

Table 5.1 is a description of emission units in S-Area.

| *TABLE 5.1* EMISSION UNITS (S-Area) | | |
|---|---|---|
| **Unit ID** | **Unit Description** | **Control Device Description** |
| S-001 | 221-S Vitrification Process | **Condenser:** J005; **HEPA Filters (VOID):** H016 & H965; **Sand Filter (VOID):** N001 |
| S-002 | 292-S #1 Diesel Generator | None |
| S-003 | 292-S #2 Diesel Generator | None |

## B. CONTROL DEVICE DESCRIPTION (S-Area)

Table 5.2 is a description of the control devices associated with the emission units in S-Area.

| *TABLE 5.2* CONTROL DEVICES (S-Area) | | | |
|---|---|---|---|
| **Control Device ID** | **Control Device Description** | **Installation Date** | **Pollutant(s) Controlled** |
| J005 | Condenser | 1/1986 | Formic Acid ($CHOOH_2$), Mercury (Hg) |

## C. EQUIPMENT DESCRIPTION (S-Area)

A description of the equipment in S-Area is provided in the following tables:

| *TABLE 5.3* UNIT ID S-001 | | | | |
|---|---|---|---|---|
| **Equipment ID** | **Equipment Description** | **Installation Date** | **Control Device ID** | **Stack ID** |
| 267S | Sludge Receipt & Adjustment Tank | 2/1988 | J005 & N001 | SDP0007 |
| 266S | Slurry Mix Evaporator | 2/1988 | J005 & N001 | SDP0007 |
| 270S | Melter | 4/1988 | None | SDP0007 |

| *TABLE 5.4* UNIT IDs S-002 & S-003 | | | | |
|---|---|---|---|---|
| **Equipment ID** | **Equipment Description** | **Installation Date** | **Control Device ID** | **Stack ID** |
| D501 | #1 Diesel Generator (2050 kW) | 1/1985 | None | SDE0002 |
| D504 | #2 Diesel Generator (2050 kW) | 1/1985 | None | SDE0003 |

## D. EMISSION LIMITS AND STANDARDS (S-Area)

Table 5.5 contains a summary of emission limits & standards for emission units located in S-Area.

| *TABLE 5.5* EMISSION LIMITS AND STANDARDS (S-Area) | | | | | | |
|---|---|---|---|---|---|---|
| **Unit ID** | **Pollutant** | **Limit/ Standard** | **Reference Method** | **Regulation** | **State Only** | **Condition Number** |
| S-001 | PM | See condition | See condition | SC Regulation 61-62.5, Standard 4 | No | 4.B.30 |

| *TABLE 5.5* EMISSION LIMITS AND STANDARDS (S-Area) | | | | | | |
|---|---|---|---|---|---|---|
| **Unit ID** | **Pollutant** | **Limit/ Standard** | **Reference Method** | **Regulation** | **State Only** | **Condition Number** |
| S-001 | Opacity | 20% | 9 | SC Regulation 61-62.5 Std. 4, Sect. IX | No | s5.E.1 |
| S-002 & S-003 | Opacity | 40% | 9 | SC Regulation 61-62.5 Std. 4, Sect. IX | No | s5.E.2 |
| S-001 | PM | 1.6 lbs/hr | 5 | SC Regulation 61-62.5 Std. 4, Sect. VIII | No | s5.E.3 |

The maximum allowable emission limits above are derived from the various Federal and State regulations that govern the operation of this type of source. All applicable facility wide emission limits and corresponding regulations are listed above. Additional operating requirements which may be more stringent than those above are contained in Part 4.0 and Part 7.0 of this permit or Part 6.0 in this Area-specific section.

## E. EMISSION UNIT CONDITIONS (S-Area)

| Condition Number | Conditions |
|---|---|
| s5.E.1 | In accordance with SC Regulation 61-62.5, Standard No. 4 - Emissions from Process Industries, Section IX - Visible Emissions (Where Not Specified Elsewhere), where construction or modification began after December 31, 1985, emissions (including fugitive emissions) shall not exhibit an opacity greater than 20%. |
| s5.E.2 | In accordance with SC Regulation 61-62.5, Standard No. 4 - Emissions from Process Industries, Section IX - Visible Emissions (Where Not Specified Elsewhere), where construction or modification began on or before December 31, 1985, emissions (including fugitive emissions) shall not exhibit an opacity greater than 40%. |
| s5.E.3 | In accordance with SC Regulation 61-62.5, Standard No. 4 - Emissions from Process Industries, Section VIII - Other Manufacturing, particulate matter emissions shall be limited to the rate specified by use of the following equations:<br><br>For process weight rates less than or equal to 30 tons per hour ($E = 4.10P^{0.67}$);<br>For process weight rates greater than 30 tons per hour ($E = 55.0P^{0.11} - 40$);<br>where,<br>E = the allowable emission rate in pounds per hour, and<br>P = process weight rate in tons per hour.<br><br>As such, the allowable particulate matter emission limit for the vitrification process is 1.6 lb/hr at its nominal production rating of 0.24 tons per hour. |

## PART 6.0s MONITORING AND REPORTING REQUIREMENTS (S-Area)

[SC Regulation 61-62.1, Section II]; [SC Regulation 61-62.70.6(a)(3)(i)(B)]

### A. MONITORING AND REPORTING (S-Area)

Table 6.1 contains summaries of the monitoring and reporting required of S-Area.

*TABLE 6.1* MONITORING AND REPORTING (S-Area)

| Unit ID | Pollutant/ Parameter | Limit | Required Monitoring | Monitoring Frequency | Reporting Frequency | Condition Number |
|---|---|---|---|---|---|---|
| S-001 | Condenser Performance | As specified by vendor | Recordkeeping | Daily | Quarterly | s6.B.3 & 4.B.21 |
| S-002 & S-003 | Fuel Oil Usage | As specified | Recordkeeping | See condition | Semiannual | s6.B.2 & 4.B.25 |
| S-002 & S-003 | Visible Emissions | N/A | Recordkeeping | Semiannual | Semiannual | 7.A.2 |

N/A = Not Applicable

** Onsite = Facility shall keep records on site. Semiannual notification that the required monitoring is being completed as specified shall be submitted to the address specified in condition 4.B.15 in accordance with SC Regulation 61-62.70.6(a)(3)(iii)(A).

### B. MONITORING AND REPORTING CONDITIONS (S-Area)

| Condition Number | Conditions |
|---|---|
| s6.B.1 | All notification and reports required by regulation or this permit, excluding 40 CFR 61 Subpart H, shall be submitted to the address specified in condition 4.B.15. |
| s6.B.2 | This diesel powered equipment shall comply with the facility wide limit as specified in condition 4.B.25. Records of fuel usage shall be maintained onsite and shall be made readily available to Department personnel upon request. Annual fuel usage rates for the non-exempt units in S-Area are not expected to exceed the following:<br><br>**SRS ID** / **DESCRIPTION** / **BLDG** / **GAL/YR**<br>DE0002 — 2050 kW Emergency Diesel Generator — 292-S — 43,100<br>DE0003 — 2050 kW Emergency Diesel Generator — 292-S — 43,100<br><br>For units in excess of the allotted values as presented above, Savannah River Site shall clearly document the reason for each exceedance in the semiannual report required by condition 4.B.25. Under no circumstances shall the annual facility wide limit established by this condition be exceeded without first obtaining construction permits from the BAQ. |
| s6.B.3 | In lieu of conducting monthly inspections of the process condenser as specified in 4.B.21, SRS shall monitor process system parameters and leak detection systems as required by facility operating and emergency procedures to detect leaks from the condenser and take actions as necessary to isolate and correct the leak |

## PART 5.0t EMISSION UNIT REQUIREMENTS (TNX-Area)

No emission units are located in TNX-Area at this time. See Attachment B for a list of Insignificant Activities located in TNX-Area.

## PART 6.0t MONITORING AND REPORTING REQUIREMENTS (TNX-Area)

[SC Regulation 61-62.1, Section II]; [SC Regulation 61-62.70.6(a)(3)(i)(B)]

No monitoring, reporting or recordkeeping is required in TNX-Area at this time. See Attachment B for a list of Insignificant Activities located in TNX-Area.

## PART 5.0z EMISSION UNIT REQUIREMENTS (Z-Area)

### A. EMISSION UNIT DESCRIPTION (Z-Area)

Table 5.1 is a description of emission units in Z-Area.

| *TABLE 5.1* EMISSION UNITS (Z-Area) | | |
|---|---|---|
| **Unit ID** | **Unit Description** | **Control Device Description** |
| Z-001 | Saltstone Facility | **Baghouse:** B011, B012, B013, B014, B015 & B016 |

### B. CONTROL DEVICE DESCRIPTION (Z-Area)

Table 5.2 is a description of the control devices associated with the emission units in Z-Area.

| *TABLE 5.2* CONTROL DEVICES (Z-Area) | | | |
|---|---|---|---|
| **Control Device ID** | **Control Device Description** | **Installation Date** | **Pollutant(s) Controlled** |
| B012 | Pulse Jet Baghouse | 6/1990 | PM, $PM_{10}$ |
| B013 | Pulse Jet Baghouse | 6/1990 | PM, $PM_{10}$ |
| B014 | Pulse Jet Baghouse | 6/1990 | PM, $PM_{10}$ |
| B015 | Pulse Jet Baghouse | 6/1990 | PM, $PM_{10}$ |
| B016 | Pulse Jet Baghouse | 6/1990 | PM, $PM_{10}$ |
| B011 | Pulse Jet Baghouse | 6/1990 | PM, $PM_{10}$ |

### C. EQUIPMENT DESCRIPTION (Z-Area)

A description of the equipment in Z-Area is provided in the following tables:

| *TABLE 5.3* UNIT ID Z-001 | | | | |
|---|---|---|---|---|
| **Equipment ID** | **Equipment Description** | **Installation Date** | **Control Device ID** | **Stack ID** |
| 075Z | Weight Hopper | 1/1986 | B014 | ZDP0072 |
| 069Z | Premix Blender #1 | 1/1986 | B015 | ZDP0088 |
| 074Z | Premix Blender #2 | 1/1986 | B016 | ZDP0089 |
| 072Z | Flyash Silo #1 | 1/1986 | B012 | ZDT0001 |
| 071Z | Cement Silo #2 | 1/1986 | B012 | ZDT0001 |

| *TABLE 5.3* UNIT ID Z-001 | | | | |
|---|---|---|---|---|
| **Equipment ID** | **Equipment Description** | **Installation Date** | **Control Device ID** | **Stack ID** |
| 073Z | Cement Silo #3 | 1/1986 | B012 | ZDT0001 |
| 076Z | Slag Silo | 1/1986 | B013 | ZDT0002 |
| 052Z | Premix Feed Hopper | 1/1986 | B011 | ZDP0071 |

## D. EMISSION LIMITS AND STANDARDS (Z-Area)

Table 5.4 contains a summary of emission limits & standards for emission units located in Z-Area.

| *TABLE 5.4* EMISSION LIMITS AND STANDARDS (Z-Area) | | | | | | |
|---|---|---|---|---|---|---|
| **Unit ID** | **Pollutant** | **Limit/Standard** | **Reference Method** | **Regulation** | **State Only** | **Condition Number** |
| Z-001 | PM | 41.3 lb/hr | 5 | SC Regulation 61-62.5 Std 4, Sect. VIII | No | z5.E.1 |
| Z-001 | Opacity | 20% | 9 | SC Regulation 61-62.5 Std 4, Sect. IX | No | z5.E.2 |

The maximum allowable emission limits above are derived from the various Federal and State regulations that govern the operation of this type of source. All applicable facility wide emission limits and corresponding regulations are listed above. Additional operating requirements which may be more stringent than those above are contained in Part 4.0 and Part 7.0 of this permit or Part 6.0 in this Area-specific section.

## E. EMISSION UNIT CONDITIONS (Z-Area)

| **Condition Number** | **Conditions** |
|---|---|
| z5.E.1 | In accordance with SC Regulation 61-62.5, Standard No. 4 - Emissions from Process Industries, Section VIII - Other Manufacturing, particulate matter emissions shall be limited to the rate specified by use of the following equations:<br><br>For process weight rates less than or equal to 30 tons per hour ($E = 4.10P^{0.67}$);<br>For process weight rates greater than 30 tons per hour ($E = 55.0P^{0.11} - 40$);<br>where,<br>E = the allowable emission rate in pounds per hour, and<br>P = process weight rate in tons per hour.<br><br>As such, the allowable particulate matter emission limit for the raw materials and handling process is 41.3 lb/hr at its nominal production rating of 35 tons per hour. |
| z5.E.2 | In accordance with SC Regulation 61-62.5, Standard No. 4 - Emissions from Process Industries, Section IX - Visible Emissions (Where Not Specified Elsewhere), where construction or modification began after December 31, 1985, emissions (including fugitive emissions) shall not exhibit an opacity greater than 20%. |

## PART 6.0z MONITORING AND REPORTING REQUIREMENTS (Z-Area)

[SC Regulation 61-62.1, Section II]; [SC Regulation 61-62.70.6(a)(3)(i)(B)]

### A. MONITORING AND REPORTING (Z-Area)

Table 6.1 contains summaries of the monitoring and reporting required of Z-Area.

*TABLE 6.1* MONITORING AND REPORTING (Z-Area)

| Unit ID | Pollutant/ Parameter | Limit | Required Monitoring | Monitoring Frequency | Reporting Frequency | Condition Number |
|---|---|---|---|---|---|---|
| Z-001 | Baghouse Performance | As specified | Recordkeeping | Daily | Quarterly | z6.B.1 |
| Z-001 | Visible Emissions | N/A | Recordkeeping | Daily | Semiannual | 7.A.1 |

### B. MONITORING AND REPORTING CONDITIONS (Z-Area)

| Cond. Num. | Conditions |
|---|---|
| z6.B.1 | Savannah River Site shall install, operate and maintain a pressure drop gauge on each baghouse. All pressure drop gauges shall be readily accessible for verification by operating personnel and Department personnel (i.e. on ground level or easily accessible roof level). Pressure drop readings shall be recorded at the frequency specified in Table 6.1 during source operation and shall be made available to Department personnel upon request. The readings shall be maintained in logs (written or electronic (i.e., computerized data system)), along with any corrective action taken when deviations occur. Operational ranges for the monitored parameters shall be established to provide a reasonable assurance of compliance. These operational ranges for the monitored parameters shall be derived from stack test data, vendor certification, and/or operational history and visual inspections, which demonstrate the proper operation of the equipment in compliance. These ranges, with supporting documentation and quality assurance procedures, shall be submitted to the address specified in 4.B.15 for approval within 180 days of the effective date of this permit. The operating ranges may be updated using this procedure, following Bureau approval. Baghouse monitoring data shall be maintained on site for a period of at least five (5) years from the date generated and shall be made available to Department personnel upon request. Each incidence of operation outside these operational ranges, including date and time, cause, and corrective action taken, shall be recorded and kept on site for five (5) years. Quarterly reports of these incidences shall be submitted to the address specified in 4.B.15 postmarked no later than 30 days after the end of the reporting period. If no incidences occurred during the reporting period then a letter shall be submitted to indicate such. These reports shall be submitted to the address specified in 4.B.15 postmarked no later than 30 calendar days after the end of each calendar quarter. Any alternative method for monitoring baghouse performance must be approved by the Bureau and shall be incorporated into the permit as set forth in SC Regulation 61-62.70.7. In addition to the above, the facility shall conduct and log maintenance inspections of all baghouses in accordance with the Z-Area inspection & maintenance program as follows:<br><br>* *For baghouses B012 & B013*: Annually inspect condition of housing: hoses secure, covers secure, gaskets in place and sealing, free of interior/exterior corrosion, bulges or deformation, door latch properly working. Check condition of filters: no tears, limited degradation of fibers/bags. Solenoid switches/housings in good condition, reversing and timing mechanism working.<br>* *For baghouses B011, B014, B015 & B016*: Batch weigh hopper and blenders dust collectors: Tri-annual (every 4 months) - Check filters: free of tears, limited degradation of fibers/bags, good cuff to thimble mate, free of creases/permanent caking. Check baghouse housing covers secure, gaskets in place and sealing, free of interior/exterior corrosion, bulges or deformation, door latch properly working. Also, inspect housing in good condition, hoses secure, transducer tubes have no obstruction. |

# PART 7.0 ADDITIONAL CONDITIONS

## A. SPECIFIC CONDITIONS

| Cond. Num. | Conditions |
|---|---|
| 7.A.1 | Once each day or portion of each day of operation, Savannah River Site shall perform a Visible Inspection (VI) on: 1) the units specified in Table 6.1 of each area-specific section for which only a cyclone or no air pollution control device (APCD) is utilized, and 2) all emission points from emission units added or replaced in accordance with the provisions of condition 7.B.1 for which no APCD is utilized. The VI shall be conducted as part of a routine walk through of the facility and the following shall be noted in a daily VI log:<br><br>a. Any visible emissions (other than steam); and,<br>b. Any mechanical failure or malfunction that results in increased air emissions.<br><br>Visual Inspection means a qualitative observation of opacity during daylight hours where the inspector records results in a log, noting color, duration, density (heavy or light), cause and corrective action taken for any abnormal emissions. The observer does not need to be certified to conduct valid visual inspections. However, at a minimum, the observer should be familiar enough with the process to distinguish between normal and abnormal operations and should also be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water. No periodic monitoring for opacity will be required during periods of burning natural gas or propane only. For each emission point noted with excessive visible emissions, mechanical problems or malfunctions, the facility shall take corrective action in the most expedient manner possible and reinspect the unit within 24 hours to verify that no excessive visible emissions exist. Failure to eliminate the excessive visible emissions or to correct the mechanical failure or malfunction specified in a. and b. within 24 hours shall be reported in accordance with condition 4.B.7. Logs shall be kept to record all visual inspections, including cause and corrective action taken for any abnormal emissions and visual inspections from date of recording. The logs shall be maintained for a period of five (5) years and be made available to the Department upon request. Savannah River Site shall submit semiannual reports of all deviations and corrective actions *not previously reported in accordance with condition 4.B.7* to the address specified in condition 4.B.15 postmarked no later than 30 calendar days after the end of the reporting period. If there are no deviations for an emission unit, this shall be clearly stated in the report. |
| 7.A.2 | The units specified in Table 6.1 of each area-specific section, including but not limited to emergency diesel engines, shall comply with all provisions of condition 7.A.1, except that the frequency of monitoring/reporting of these sources shall be semiannual. |
| 7.A.3 | All pollution control devices shall be properly operating and in place at all times when equipment or processes controlled by the devices are operating. |
| 7.A.4 | It has been determined that Savannah River Site is not subject to SC Regulation 61-62.68, Chemical Accident Prevention Provisions, neither due to in-process storage nor due to use of a regulated substance in quantities above the specified threshold. Should a change occur that would subject the facility to the above regulation, the following must be completed:<br><br>a. Submittal of a Risk Management Plan (RMP) to the Environmental Protection Agency (EPA) prior to the date the regulated substance is first present above the threshold quantity in a process.<br>b. Compliance with the Risk Management Program prior to the date the regulated substance is first present above the threshold quantity in a process.<br>c. Submittal of subsequent revisions/updates of the RMP in accordance with SC Regulation 61-62.68.190.<br><br>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. |

| Cond. Num. | Conditions |
|---|---|
| 7.A.5 | No condition presented herein precludes the permittee from adherence to additional or more stringent conditions or requirements of any other Federal, State or local approval or permit. Failure to comply with the specific conditions may result in revocation of the approval and/or enforcement action by the BAQ. |
| 7.A.6 | At all times, including periods of startup, shutdown and malfunction, all emission units shall be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions. |

## B. OPERATIONAL FLEXIBILITY [SC Regulation 61-62.70.7(e)]

| Condition Number | Conditions |
|---|---|
| 7.B.1 | The facility is permitted to operate the equipment as specified in the area-specific parts of this permit. For purposes of granting operational flexibility, Savannah River Site shall be allowed to make minor revisions and/or additions that are not addressed or prohibited by this Permit to the facility without having to undergo a permit modification consistent with SC Regulation 61-62.70.7(e)(5) and 61-62.70.7(e)(6). The facility understands that a change-notice may be required under these provisions. In addition, the change must also otherwise be exempt from State permit review requirements under SC Regulation 61-62.1, Section II. Any such change operated under this provision is not covered by the permit shield provisions of 61-62.70.6(f). |
| 7.B.2 | Pursuant to SC Regulation 61-62.70.7(e)(6)(ii), for each change to an insignificant activity and that remains an insignificant activity after the change, the facility will keep a record of the change including the date of the change, change in actual emissions from the change, and any applicable requirement that would apply as a result of the change. The same procedure would apply to an activity that is newly added at the facility and is an insignificant activity. For any change not described in the prior sentences of this paragraph, the facility must submit a written concurrent notice to DHEC and EPA describing the date of the change, any change in emissions, pollutants emitted, and any applicable requirement triggered as a result of the change in addition to keeping an on-site log of the change. SRS shall, on a monthly basis, provide a list of changes that have been implemented at the facility within the previous month for insignificant activities, as these changes pertain to the operational flexibility requirements of this section. Furthermore, SRS shall provide the reason(s) that the changes are subject to operational flexibility, to include calculations showing the combined pollutant PTE increase for all cumulative modifications not covered by the existing permit, in addition to other supporting documentation as appropriate. The reporting procedures required by this condition shall not supersede or contradict the Title V modification procedure as detailed in SC Regulation 61-62.70.7. This list shall be submitted monthly to the addresses specified in conditions 4.B.15 and 4.B.16 postmarked no later than 30 calendar days after the end of the reporting period. |
| 7.B.3 | Pursuant to Savannah River Site's January 24, 1996 letter to the BAQ (ESH-ESS-96-0042), the proposed plan for permitting/exempting of new sources shall remain in effect with the issuance of this permit. In an effort to eliminate the necessity of submitting information for sources which are clearly insignificant or exempt, the BAQ hereby implements the proposed plan to integrate the thresholds and exemptions identified in the following SC Regulations: *61-62.1*, *61-62.5, Standard 8* and *61-62.70*. For any source which has potential emissions of less than 0.5 lb/hr of any criteria pollutant OR less than 0.05 lb/hr of a Toxic Air Pollutant (as defined by the above-referenced Standard 8) where the Level II air dispersion modeling analysis indicates that emissions are below the Standard 8 MAAC, and the source has no other Federal requirement such that it would otherwise require a permit form the BAQ, then SRS shall consider them to be exempt from permitting requirements. No source information needs to be submitted for such sources, nor is a written determination from the BAQ required prior to placing such source into operation. Records of the calculations, basic source descriptions (e.g. size, capacities, flow rates, etc.) and records of operation of all sources that meet the above criteria shall be maintained on-site and shall be made available to Department personnel upon request. |

## C. COMPLIANCE SCHEDULE [SC Regulation 61-62.70.5(c)(8)]

Not applicable to Savannah River Site at this time.

## D. PERMIT SHIELD [SC Regulation 61-62.70.6(f)] (Revised 11/13/98)

A copy of the "applicability determination" Savannah River Site submitted with it's Part 70 permit application is included as Attachment C. Compliance with the terms and conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance. The permittee shall also be shielded from any non-applicable requirements as agreed upon by the Department as specified in Attachment C.

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 Savannah River Site 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 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 (SC Regulation 61-62.70.7(e)(2)), group processing of minor permit modifications (SC Regulation 61-62.70.7(e)(3)), or operational flexibility (SC Regulation 61-62.70.7(e)(5)), except as specified in SC Regulation 61-62.70.7(e)(5)(iii).