



SC DEPARTMENT *of* **ENVIRONMENTAL SERVICES**

Bureau of Air Quality Title V Operating Permit

**BASF Metals LLC
554 Engelhard Drive
Seneca, South Carolina 29678
Oconee County**

In accordance with the provisions of the Pollution Control Act, Sections 48-1-50(5), 48-1-100(A), and 48-1-110(a), the 1976 Code of Laws of South Carolina, as amended, and South Carolina Regulation 61-62, Air Pollution Control Regulations and Standards, the Bureau of Air Quality authorizes the operation of this facility and the equipment specified herein in accordance with valid construction permits, and the plans, specifications, and other information submitted in the Title V permit application received on May 31, 2023, as amended. All official correspondence, plans, permit applications, and written statements are an integral part of the permit. Any false information or misrepresentation in the application for a construction permit may be grounds for permit revocation.

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

Permit Number: TV-50000019 v1.1
Agency Air Number: 1820-0106

Issue Date: May 30, 2024
Effective Date: June 1, 2024
Expiration Date: May 31, 2029


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



RECORD OF REVISIONS		
Date	Type	Description of Changes
01-07-2025	MM	<ul style="list-style-type: none">Added Reactor 1420RC020 to Emission Unit 120 Table A.17Removed Equipment 1110SR010 (Intermediate Scrubber) from Emission Unit 120 Table A.17Removed Equipment 1430EV050 from Emission Unit 121 Table A.19Removed Reactor 0820RC030 from Emission Unit 113 Table A.13 and added it to Emission Unit 156 Table A.30Added Refining Process Tank 0820TK260 to Emission Unit 156 Table A.30Updated permit template and standard conditions

AA Administrative Amendment

MM Minor Modification

SM Significant Modification

A. EMISSION UNIT(S), EQUIPMENT, AND CONTROL DEVICE(S)	
Emission Unit ID	Emission Unit Description
100	Steam Boiler No.1 (16-01)
101	Steam Boiler No.2 (16-03)
102	Trash Incinerator 16-02
104	High-Grade Milling 03-02 (Room 3A)
107	Tray Furnaces 04-01
108	Electric Arc Furnace 04-03 (EAF)
109	High Grade Melt Room/TBRC-1 06-01
110	Gold Salts and Solutions 07-10
113	Palladium Salts and Solutions 08-20
115	Ruthenium Salt and Solutions 11-10
120	Rhodium Salts and Solutions 14-20
121	Platinum Salts and Solutions 14-30
122	TC Grade Precious Metal Salts and Solutions 14-40
150	Tank Farm Bulk Chemicals 31-01
151	Wastewater Treatment Tank Farm
154	TBRC-2
155	Alloy Dissolution
156	Refinery

Equipment and control device capacities provided under the Description columns of Equipment and Control Device Tables below are not intended to be permit limits unless otherwise specified within the Table "Limitations, Monitoring, and Reporting". However, this condition does not exempt the facility from the construction permitting process, from PSD review, nor from any other applicable requirements that must be addressed prior to increasing production rates.

A.1 EQUIPMENT FOR EMISSION UNIT 100 - STEAM BOILER NO.1 (16-01)				
Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
1610BO010	25 Million Btu/hr Boiler No.1 (Natural Gas or Propane as Fuel)	2011	None	1601

A.2 EQUIPMENT FOR EMISSION UNIT 101 – STEAM BOILER NO.2 (16-03)				
Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
1610BO020	25 Million Btu/hr Boiler No.2 (Natural Gas or Propane as Fuel)	1987	None	1603

A.3 EQUIPMENT FOR EMISSION UNIT 102 – TRASH INCINERATOR (16-02)				
Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
1650IR010	Trash Incinerator (Natural Gas or Propane as Fuel)	1987	None	1602

A.4 EQUIPMENT FOR EMISSION UNIT 104 – HIGH GRADE MILLING 03-02				
Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
0320BM010	Small Ball Mill	2001	None	0302
0320BM020	Large Ball Mill	2006	None	0302
0320DC020	Large Ball Mill Product Recovery Device	2006	None	0302
0320DC060	Old AutoSampler Product Recovery Device	1987	None	0302
0320DS010	Old Drumming Station No.1	1991	None	0302
0320DS020	Old Drumming Station No.2	1987	None	0302
0350BL030	North Blender	1987	None	0302
0360DC020	Area 3 Process Baghouse	1987	None	0302
0310SA020	New AutoSampler	2007	None	0302
1940DC180	New AutoSampler Product Recovery Device	2007	None	0302
0380GR030	TEMA Mill	2017	None	0302

A.5 EQUIPMENT FOR EMISSION UNIT 107 – TRAY FURNACES 04-01

Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
0410FE010	Primary Tray Furnace No.1	1987	0410AB010 0410SC020	0401
0410FE020	Primary Tray Furnace No.2	1987	0410AB010 0410SC020	0401
0410FE030	Primary Tray Furnace No.3	1987	0410AB010 0410SC020	0401
0410FE040	Primary Tray Furnace No.4	1987	0410AB010 0410SC020	0401
0410FE050	Primary Tray Furnace No.5	1987	0410AB010 0410SC020	0401
0410FE060	Primary Tray Furnace No.6	1987	0410AB010 0410SC020	0401
0410FE070	Primary Tray Furnace No.7	1987	0410AB010 0410SC020	0401
0510FE1	Secondary Tray Furnace No.1	1987/2003	0410AB010 0410SC020	0401
0510FE2	Secondary Tray Furnace No.2	1987/2003	0410AB010 0410SC020	0401
0510FE5	Secondary Tray Furnace No.5	1987/2003	0410AB010 0410SC020	0401
0510FE6	Secondary Tray Furnace No.6	1987/2003	0410AB010 0410SC020	0401
N/A	Hazardous Panning Room	1987	0410AB010 0410SC020	0401

A.6 CONTROL DEVICE(S) FOR EMISSION UNIT 107 – TRAY FURNACES 04-01

Control Device ID	Control Device Description	Pollutant(s) Controlled	Installation Date	Emission Point ID
0410AB010	Tray Furnace Afterburner	VOC, CO	1987	0401
0410SC020	Tray Furnace Packed Tower Caustic Scrubber	PM, HCl	1987	0401

A.7 EQUIPMENT FOR EMISSION UNIT 108 – ELECTRIC ARC FURNACE 04-03 (EAF)				
Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
0430BA010	Bulk Bag Feeder	2002	None	0403
0430BA020	Bulk Bag Feeder	2002	None	0403
0430BA030	Bulk Bag Feeder	2002	None	0403
0430BA040	Bulk Bag Feeder	2002	None	0403
0430BA050	Bulk Bag Feeder	2002	None	0403
0430BA060	Bulk Bag Feeder	2002	None	0403
0430BA070	Bulk Bag Feeder	2002	None	0403
0430BA080	Bulk Bag Feeder	2012	None	0403
0430BA090	Bulk Bag Feeder	2012	None	0403
0430BA100	Bulk Bag Feeder	2012	None	0403
0430BA110	Bulk Bag Feeder	2012	None	0403
0430BA150	Blended Feed Bagging Station	2016	None	0403
0430BL010	Feed Blender	2012	None	0403
0430BL020	Feed Blender	2012	None	0403
0430DC010	Product Recovery Dust Collector	2002	None	0403
0440FE010	Electric Arc Furnace	2002/2012	0440AB010 0460SR010	0403
0440MH010	Bulk Bin Feeder/Furnace Feed Hopper	2002	0460SR010	0403
0460DC010	Product Recovery Dust Collector	2002	None	0403
0430TK010	Blended Feed Silo	2012	None	None
0430TK020	Lime Silo	2012	None	None
0430TK030	AutoCatalyst Silo	2012	None	None
0430BV010	Product Recovery Bin Vent Passive Filter for Blended Feed Silo	2012	None	None
0430BV020	Product Recovery Bin Vent Passive Filter for Lime Silo	2012	None	None
0430BV030	Product Recovery Bin Vent Passive Filter for AutoCatalyst Silo	2012	None	None

A.8 CONTROL DEVICE(S) FOR EMISSION UNIT 108 – ELECTRIC ARC FURNACE 04-03 (EAF)

Control Device ID	Control Device Description	Pollutant(s) Controlled	Installation Date	Emission Point ID
0460SR010	EAF Packed Scrubber	PM, HCl	2002/2022	0403
0440AB010	EAF Thermal Oxidizer	CO	2002	0403

A.9 EQUIPMENT FOR EMISSION UNIT 109 – HIGH GRADE MELT ROOM/TBRC-1 06-01

Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
0610FE010	Electrical Induction Furnace	1987	None	1801
0610FE090	Electrical Induction Furnace	1987	None	1801
0610FE100	Top Blown Rotary Converter (TBRC) No.1	2007/2017	0610SR010-20	1801
0610DC010	High Grade Melt Room Product Recovery Baghouse	1987/2017	0610SR010-20	1801

A.10 CONTROL DEVICE(S) FOR EMISSION UNIT 109 – HIGH GRADE MELT ROOM/TBRC-1 06-01

Control Device ID	Control Device Description	Pollutant(s) Controlled	Installation Date	Emission Point ID
0610SR010-20	Packed Scrubber with Venturi for TBRC	SO ₂ , PM Metal HAP	2017	1801

A.11 EQUIPMENT FOR EMISSION UNIT 110 – GOLD SALTS AND SOLUTIONS 07-10

Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
0710AS010	Acid Station	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
0710AS020	Acid Station	1987	2110SR010	2102
0710AS030	Acid Station	1987	2110SR010	2102
0710EV020	Evaporator	1987	2110SR010	2102

A.11 EQUIPMENT FOR EMISSION UNIT 110 – GOLD SALTS AND SOLUTIONS 07-10

Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
0710RC010	Reactor	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
0710RC020	Reactor	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
0710RC030	Reactor	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
0710TK030	Tank	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101

A.12 CONTROL DEVICE(S) FOR EMISSION UNIT 110 – GOLD SALTS AND SOLUTIONS 07-10

Control Device ID	Control Device Description	Pollutant(s) Controlled	Installation Date	Emission Point ID
2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	Five Packed Scrubbers for Central NO _x Scrubber System	NO _x , HCl, Cl ₂ HNO ₃ , VOC SO ₂ H ₂ S	1987	2101
2110SR010	Packed Scrubber for Central NoNO _x Scrubber System	HCl, Cl ₂ , SO ₂ VOC, H ₂ SO ₄ Formic Acid	1987	2102

A.13 EQUIPMENT FOR EMISSION UNIT 113 – PALLADIUM SALTS AND SOLUTIONS 08-20				
Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
0820BH010	Bottling Hood	1995	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
0820EV010	Evaporator	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
0820EV020	Evaporator	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
0820EV030	Evaporator	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
0820EV040	Evaporator	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
0820FE010	Tube Furnace	1995	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
0820HD010	Hood	1995	2110SR010	2101
0820RC010	Reactor	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101

A.13 EQUIPMENT FOR EMISSION UNIT 113 – PALLADIUM SALTS AND SOLUTIONS 08-20				
Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
0820RC020	Reactor	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
0820RC040	Reactor	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
0820RC050	Reactor	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
0820RC170	Reactor	1987	2120SR010	2103
0820TK010	Tank	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
0820TK020	Tank	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
0820TK060	Nitric Acid Tank	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
0820TK070	Tank	1987	2110SR010	2102

A.14 CONTROL DEVICE(S) FOR EMISSION UNIT 113 – PALLADIUM SALTS AND SOLUTIONS 08-20

Control Device ID	Control Device Description	Pollutant(s) Controlled	Installation Date	Emission Point ID
2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	Five Packed Scrubbers for Central NO _x Scrubber System	NO _x , HCl, Cl ₂ HNO ₃ , VOC SO ₂ , H ₂ S	1987	2101
2110SR010	Packed Scrubber for Central NoNO _x Scrubber System	HCl, Cl ₂ , SO ₂ VOC, H ₂ SO ₄ Formic Acid	1987	2102
2120SR010	Central Ammonia Scrubber System	N ₂ H ₄ Ethanolamine Formic Acid	1987	2103

A.15 EQUIPMENT FOR EMISSION UNIT 115 – AREA 11 RUTHERIUM SALTS AND SOLUTIONS 11-10

Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
1110RC020	Reactor	1996	2110SR010	2102
1110SR010	Salts Intermediate Scrubber	1996	2110SR010	2102
1110TK010	Tank	1987	2110SR010	2102
1110TK020	Tank	1987	2110SR010	2102
1110TK030	Tank	1987	2110SR010	2102
1110TK040	Tank	1996	2110SR010	2102
1120RC010	Reactor	1987	2110SR010	2102

A.16 CONTROL DEVICE(S) FOR EMISSION UNIT 115 – RUTHERIUM SALTS AND SOLUTIONS 11-10

Control Device ID	Control Device Description	Pollutant(s) Controlled	Installation Date	Emission Point ID
2110SR010	Packed Scrubber for Central NoNO _x Scrubber System	HCl, Cl ₂ , SO ₂ VOC, H ₂ SO ₄ Formic Acid	1987	2102

A.17 EQUIPMENT FOR EMISSION UNIT 120 – RHODIUM SALTS AND SOLUTIONS 14-20

Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
1420EV010	Evaporator	1987	2110SR010	2102
1420EV020	Evaporator	1987	2110SR010	2102
1420FP020	Filter Press	1987	2120SR010	2103
1420FR090	Crock Filter	1987	2120SR010	2103
1420FR100	Crock Filter	1987	2120SR010	2103
1420RC010	Reactor	1987	2110SR010	2102
1420RC020	Reactor	1987	2110SR010	2102
1420RC030	Reactor	1987	2110SR010	2102
1420RC040	Reactor	1987	2110SR010	2102
1420RC050	Reactor (Cases 1-2)	1987	2110SR010/2120SR010	2102/2103
1420RC060	Reactor	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
1420TK010	Tank	1987	2120SR010	2103
1420TK030	Tank	1987	2120SR010	2103
1420TK040	Tank	1987	2120SR010	2103

A.18 CONTROL DEVICE(S) FOR EMISSION UNIT 120 – RHODIUM SALTS AND SOLUTIONS 14-20

Control Device ID	Control Device Description	Pollutant(s) Controlled	Installation Date	Emission Point ID
2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	Five Packed Scrubbers for Central NOx Scrubber System	NO _x , HCl, Cl ₂ HNO ₃ , VOC SO ₂ , H ₂ S	1987	2101
2110SR010	Packed Scrubber for Central NoNOx Scrubber System	HCl, Cl ₂ , SO ₂ VOC, H ₂ SO ₄ Formic Acid	1987	2102

A.18 CONTROL DEVICE(S) FOR EMISSION UNIT 120 – RHODIUM SALTS AND SOLUTIONS 14-20

Control Device ID	Control Device Description	Pollutant(s) Controlled	Installation Date	Emission Point ID
2120SR010	Central Ammonia Scrubber System	N ₂ H ₄ Ethanolamine Formic Acid	1987	2103

A.19 EQUIPMENT FOR EMISSION UNIT 121 – PLATINUM SALTS AND SOLUTIONS 14-30

Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
1430EV020	Evaporator	1987	2110SR010	2102
1430EV030	Evaporator	1987	2110SR010	2102
1430FP020	Filter Press	1987	2110SR010	2102
1430FP030	Filter Press	1987	2120SR010	2103
1430FR080	Crock Filter	1987	2120SR010	2103
1430FS100	Cabinet	1987	2120SR010	2103
1430HF010	Cabinet	1987	2120SR010	2103
1430HF020	Cabinet	1987	2120SR010	2103
1430RC010	Reactor	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
1430RC020	Reactor	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
1430RC030	Reactor	1987	2120SR010	2103
1430RC040	Reactor	1987	2110SR010	2102
1430RC050	Reactor	1987	2110SR010	2102

A.19 EQUIPMENT FOR EMISSION UNIT 121 – PLATINUM SALTS AND SOLUTIONS 14-30

Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
1430RC060	Reactor	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
1430RC070	Reactor	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
1430RC080	Reactor	1987	2120SR010	2103
1430RC090	Reactor	1987	2120SR010	2103
1430RC100	Reactor	1987	2120SR010	2103
1430RC110	Reactor	2008	2120SR010	2103
1430TK030	Tank	1987	2110SR010	2102
1430TK040	Condensate Tank	1987	None	2103
1430TK050	Tank	1987	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
1430TK110	Tank	1987	2120SR010	2103
1430TK120	Tank	1987	2110SR010	2102
1430TK130	Tank	1987	2120SR010	2103
1430TK150	Head Tank	1987	2120SR010	2103
1430TK160	Vacuum Overflow Bottle	2012	2110SR010	2102
1430TK180	Vacuum Overflow Bottle	2012	2120SR010	2103
1430TK190	Holding Tank	2012	2110SR010	2102
1430TK210	Vacuum Trap Overflow Tank	2012	2120SR010	2103

A.20 CONTROL DEVICE(S) FOR EMISSION UNIT 121 – PLATINUM SALTS AND SOLUTIONS 14-30				
Control Device ID	Control Device Description	Pollutant(s) Controlled	Installation Date	Emission Point ID
2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	Five Packed Scrubbers for Central NO _x Scrubber System	NO _x , HCl, Cl ₂ HNO ₃ , VOC SO ₂ , H ₂ S	1987	2101
2110SR010	Packed Scrubber for Central NoNO _x Scrubber System	HCl, Cl ₂ , SO ₂ VOC, H ₂ SO ₄ Formic Acid	1987	2102
2120SR010	Central Ammonia Scrubber System	N ₂ H ₄ Ethanolamine Formic Acid	1987	2103

A.21 EQUIPMENT FOR EMISSION UNIT 122 – TC GRADE PRECIOUS METAL SALTS AND SOLUTIONS 14-40				
Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
1440RC010	Reactor	1994	2110SR010	2102

A.22 CONTROL DEVICE(S) FOR EMISSION UNIT 122 – TC GRADE PRECIOUS METAL SALTS AND SOLUTIONS 14-40				
Control Device ID	Control Device Description	Pollutant(s) Controlled	Installation Date	Emission Point ID
2110SR010	Packed Scrubber for Central NoNO _x Scrubber System	HCl, Cl ₂ , SO ₂ VOC, H ₂ SO ₄ Formic Acid	1987	2102

A.23 EQUIPMENT FOR EMISSION UNIT 150 – TANK FARM BULK CHEMICALS (31-01)				
Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
3130TK010	Bulk Sulfuric Acid (93%) Storage Tank	1987	None	None
3140TK010	HCl Raw Material Storage Tank	1987	2110SR010	2102
3140TK020	HCl Raw Material Storage Tank	1987	2110SR010	2102

A.23 EQUIPMENT FOR EMISSION UNIT 150 – TANK FARM BULK CHEMICALS (31-01)

Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
3160TK010	Nitric Acid Raw Material Storage Tank	2009	2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	2101
3120TK010	Caustic Raw Material Bulk Tanks	2009	None	None
3120TK020	Caustic Raw Material Bulk Tanks	2009	None	None

A.24 CONTROL DEVICE(S) FOR EMISSION UNIT 150 – TANK FARM BULK CHEMICALS (31-01)

Control Device ID	Control Device Description	Pollutant(s) Controlled	Installation Date	Emission Point ID
2130SR011 2130SR021 2130SR040 2130SR050 2130SR060	Five Packed Scrubbers for Central NO _x Scrubber System	NO _x , HCl, Cl ₂ HNO ₃ , VOC SO ₂ , H ₂ S	1987	2101
2110SR010	Packed Scrubber for Central No - NO _x Scrubber	HCl, Cl ₂ , SO ₂ VOC, H ₂ SO ₄ Formic Acid	1987	2102

A.25 EQUIPMENT FOR EMISSION UNIT 151 – WASTEWATER TREATMENT TANK FARM

Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
3240TK010	GP 4 Equal Storage Tank	1987	None	None
3240TK020	GP 4 Equal Storage Tank	1987	None	None

A.26 EQUIPMENT FOR EMISSION UNIT 154 – TBRC-2

Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
0615FE200	Top Blown Rotary Converter No.2 (TBRC-2)	2021	0615SR010-20	0604
0615DC200	TBRC No.2 Product Recovery Baghouse	2021	0615SR010-20	0604

A.27 CONTROL DEVICE(S) FOR EMISSION UNIT 154 – TBRC-2

Control Device ID	Control Device Description	Pollutant(s) Controlled	Installation Date	Emission Point ID
0615SR010-20	Packed Scrubber with Venturi for TBRC	SO ₂ , PM Metal HAP	2020	0604

A.28 EQUIPMENT FOR EMISSION UNIT 155 – ALLOY DISSOLUTION PROCESS

Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
1435RC010	Platinum Dissolution Reactor	2022	1211SR150	1028
1211RC100	Alloy Dissolution Reactor No.1	2022	1211SR150	1028
1211RC110	Alloy Dissolution Reactor No.2	2022	1211SR150	1028
1435RC040	Pt Hydrolysis Reactor	2022	2110SR010	2102
1435TK020	Pt Dissolution Condensate Collection Tank	2022	1211SR150	1028
1435TK050	CPA Dispensing Tank 1	2022	2110SR010	2102
1435TK060	CPA Dispensing Tank 2	2022	2110SR010	2102
1211FR130	PGM Solution Crock Filter	2022	2110SR010	2102

A.29 CONTROL DEVICE(S) FOR EMISSION UNIT 155 – ALLOY DISSOLUTION PROCESS

Control Device ID	Control Device Description	Pollutant(s) Controlled	Installation Date	Emission Point ID
1211SR150	Dissolution Chlorine Scrubber	HCl, Cl ₂	2022	1028
2110SR010	Packed Scrubber for Central NoNO _x Scrubber System	HCl, Cl ₂	2022	2102

A.30 EQUIPMENT FOR EMISSION UNIT 156 – REFINERY

Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
0711RC010	Refining Process Reactor	2022	2110SR010	2102
0811TK010	Refining Process Tank	2022	2110SR010	2102
0811TK020	Refining Process Tank	2022	2110SR010 0811SR310	2102
0811TK030	Refining Process Tank	2022	2110SR010	2102

A.30 EQUIPMENT FOR EMISSION UNIT 156 – REFINERY				
Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
			0811SR310	
0811TK040	Refining Process Tank	2022	2110SR010	2102
0811TK050	Refining Process Tank	2022	2110SR010	2102
0811TK060	Refining Process Tank	2022	2110SR010	2102
0811TK070	Refining Process Tank	2022	2110SR010	2102
0811TK080	Refining Process Tank	2022	2110SR010	2102
0811TK120	Refining Process Reactor	2022	2110SR010 0811SR310	2102
0811TK125	Refining Process - Tank	2022	2120SR010	2103
0811RC130	Refining Process - Tank	2022	2120SR010	2103
0811TK150	Refining Process - Tank	2022	2120SR010	2103
0811TK160	Refining Process - Tank	2022	2120SR010	2103
0811TK170	Refining Process - Tank	2022	2120SR010	2103
0811RC180	Refining Process - Tank	2022	2110SR010	2102
0811TK190	Refining Process - Tank	2022	2120SR010	2103
0811RC200	Refining Process - Tank	2022	2120SR010	2103
0811TK210	Refining Process - Tank	2022	2120SR010	2103
0811TK220	Refining Process - Tank	2022	2120SR010	2103
0811RC240	Refining Process - Tank	2022	2120SR010	2103
0811TK250	Refining Process - Tank	2022	2120SR010	2103
0811TK265	Refining Process - Tank	2022	2110SR010 0811SR310	2102
0811TK270	Refining Process - Tank	2022	2120SR010	2103
0811TK280	Refining Process - Tank	2022	2120SR010	2103
0811TK290	Refining Process Tank	2022	2110SR010	2102
0811TK300	Refining Process Tank	2022	2110SR010	2102

A.30 EQUIPMENT FOR EMISSION UNIT 156 – REFINERY

Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
1111TK010	Refining Process Tank	2022	2110SR010	2102
1111TK050	Refining Process Tank	2022	2110SR010	2102
1111TK060	Refining Process Tank	2022	2110SR010	2102
1111TK070	Refining Process Tank	2022	2110SR010	2102
1111TK090	Refining Process Tank	2022	2110SR010	2102
1311TK020	Refining Process Tank	2022	2110SR010	2102
1311TK030	Refining Process Tank	2022	2110SR010	2102
1311TK060	Refining Process Tank	2022	2110SR010	2102
1311TK070	Refining Process Tank	2022	2110SR010	2102
1311TK080	Refining Process Tank	2022	2110SR010	2102
1311TK090	Refining Process Tank	2022	2110SR010	2102
1311TK100	Refining Process Tank	2022	2110SR010	2102
1311TK110	Refining Process Tank	2022	2110SR010	2102
1311TK120	Refining Process Tank	2022	2110SR010	2102
1311TK130	Refining Process Tank	2022	2110SR010	2102
1311TK140	Refining Process Tank	2022	2110SR010	2102
1311TK150	Refining Process Tank	2022	2110SR010	2102
1311TK160	Refining Process Tank	2022	2110SR010	2102
1411TK010	Refining Process Tank	2022	2110SR010	2102
1411TK020	Refining Process Tank	2022	2110SR010	2102
1411TK030	Refining Process Tank	2022	2110SR010	2102
1411TK040	Refining Process Tank	2022	2110SR010	2102
1411TK050	Refining Process Tank	2022	2110SR010	2102
1411TK060	Refining Process Tank	2022	2110SR010	2102
1411TK070	Refining Process Tank	2022	2110SR010	2102

A.30 EQUIPMENT FOR EMISSION UNIT 156 – REFINERY				
Equipment ID	Equipment Description	Installation Date	Control Device ID	Emission Point ID
1411TK080	Refining Process Tank	2022	2110SR010	2102
1411TK090	Refining Process Tank	2022	2110SR010	2102
1411TK100	Refining Process Tank	2022	2110SR010	2102
1411TK110	Refining Process Tank	2022	2110SR010	2102
1411TK120	Refining Process Tank	2022	2110SR010	2102
1411TK130	Refining Process Tank	2022	2110SR010	2102
1411TK150	Refining Process Tank	2022	2110SR010	2102
1411RC300	Refining Process - Tank	2022	2120SR010	2103
1411TK310	Refining Process - Tank	2022	2120SR010	2103
1411TK340	Refining Process - Tank	2022	2120SR010	2103
FeCl ₂ Drum	Refining Process Tank	2022	2110SR010	2102
Ammonium Chloride Drum	Refining Process - Tank	2022	2120SR010	2103
Formic Acid Drum	Refining Process - Tank	2022	2120SR010	2103
Hydrazine Drum Metal Scavenge	Refining Process - Tank	2022	2120SR010	2103
Hydrazine Drum Pt Reduction	Refining Process - Tank	2022	2120SR010	2103
0820RC030	Reactor	1987	2120SR010	2103
0820TK260	Refining Process Tank	1994	2120SR010	2103

A.31 CONTROL DEVICE(S) FOR EMISSION UNIT 156 – REFINERY				
Control Device ID	Control Device Description	Pollutant(s) Controlled	Installation Date	Emission Point ID
2110SR010	Packed Scrubber for Central NoNOx Scrubber System	HCl, Cl ₂ , SO ₂ VOC, H ₂ SO ₄ Formic Acid	2022	2102
2120SR010	Central Ammonia Scrubber System	N ₂ H ₄ Ethanolamine Formic Acid	2022	2103

A.31 CONTROL DEVICE(S) FOR EMISSION UNIT 156 – REFINERY

Control Device ID	Control Device Description	Pollutant(s) Controlled	Installation Date	Emission Point ID
0811SR310	Refining Intermediate Scrubber	SO ₂	2022	2102

B. LIMITATIONS, MONITORING, AND REPORTING

Condition Number	Conditions
B.1	<p>Emission Unit ID: 107, 108, 109, 110, 113, 115, 120, 121, 122, 150, 154, 155, 156 Equipment ID: All equipment in above Emission Units with a control device Control Device ID: 0410AB010, 0410SC020, 0460SR010, 0440AB010, 0610SR010/020, 0615SR010/20, 2110SR010, 2120SR010, 2130SR011, 2130SR021, 2130SR040, 2130SR050, 1211SR150, 0811SR310</p> <p>The owner/operator shall inspect, calibrate, adjust, and maintain continuous monitoring systems, monitoring devices, and gauges in accordance with manufacturer's specifications or good engineering practices. The owner/operator shall maintain on file all measurements including continuous monitoring system or monitoring device performance measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required in a permanent form suitable for inspection by Department personnel.</p> <p>(S.C. Regulation 61-62.1, Section II(J)(1)(d)) Sources required to have continuous emission monitors shall submit reports as specified in applicable parts of the permit, law, regulations, or standards.</p>
B.2	<p>Emission Unit ID: 107, 108, 109, 110, 113, 115, 120, 121, 122, 150, 154, 155, 156 Equipment ID: All equipment in above Emission Units with a control device Control Device ID: 0410AB010, 0410SC020, 0460SR010, 0440AB010, 0610SR010/020, 0615SR010/20, 2110SR010, 2120SR010, 2130SR011, 2130SR021, 2130SR040, 2130SR050, 1211SR150, 0811SR310</p> <p>All gauges shall be readily accessible and easily read by operating personnel and Department personnel (i.e. on ground level or easily accessible roof level). Monitoring parameter readings (e.g., pressure drop readings, flow rates, etc.) and inspection checks shall be maintained in logs (written or electronic), along with any corrective action taken when deviations occur. Each occurrence of operation outside the operational ranges, including date and time, cause, and corrective action taken, shall be recorded and kept on site. Exceedance of operational range shall not be considered a violation of an emission limit of this permit, unless the exceedance is also accompanied by other information demonstrating that a violation of an emission limit has taken place.</p> <p>Reports of these occurrences shall be submitted semiannually. If there were no occurrences during the reporting period, then documentation shall be submitted to indicate such. Any alternative method for monitoring control device performance must be preapproved by the Department and shall be incorporated into the permit as set forth in S.C. Regulation 61-62.70.7.</p>
B.3	<p>Emission Unit ID: 100, 101, 102 Equipment ID: 1610BO010, 1610BO020, 1650IR010</p>

B. LIMITATIONS, MONITORING, AND REPORTING

Condition Number	Conditions
	<p>(S. C. Regulation 61-62.5, Standard No. 5.2) Any existing source where a burner assembly is replaced with another burner assembly after June 25, 2004, regardless of size or age of the burner assembly to be replaced shall be replaced with a low NO_x burner assembly or equivalent technology, and shall achieve a 30 percent reduction from uncontrolled NO_x emission levels based upon manufacturer's specifications. An exemption from this requirement shall be granted when a single burner assembly is being replaced in an existing source with multiple burners due to non-routine maintenance. The replacement of individual components such as burner heads, nozzles, or windboxes does not trigger this requirement.</p> <p>The owner or operator shall notify and register the burner assembly replacement with the Department, in writing, within 7 days of replacing the existing burner assembly. Notification will be provided on the Department's Low NO_x Burner Assembly Replacement Notification Form. Those affected sources that wish to receive an emission reduction credit for the control device will be required to submit a construction permit application. Those affected sources requesting an alternative control methodology must receive written approval prior to burner replacement.</p> <p>If the burner assembly is replaced as detailed above, the owner or operator shall perform tune-ups every twenty-four (24) months in accordance with manufacturer's specifications or with good engineering practices. The first tune-up shall be conducted no more than twenty-four (24) months from replacement of a burner assembly for affected existing sources. Each subsequent tune-up shall be conducted no more than twenty-four (24) months after the previous tune-up.</p> <p>All tune-up records are required to be maintained on site and available for inspection by the Department for a period of five (5) years from the date generated.</p> <p>The owner or operator shall develop and retain a tune-up plan on file.</p>
B.4	<p>Emission Unit ID: 102, 107, 108, 154, 155, 156 Equipment ID: 1650IR010, 0410FE010-070, 0510FE1/2/5/6, 0440FE010, 0615FE200, 1435RD010, 1211RC100, 1211RC110, 1435TK020, 0811TK265, 0811TK020, 0811TK030, 0811TK120, 1070TK010, 1070TK020, 1070TK030, 1070TK040, 1070TK050, 1070TK090, 1070TK160, 1070TK180 Control Device ID: 0410AB010, 0410SC020, 0440AB010, 0615SR010/020, 1211SR150, 1411SR010</p> <p>For any source test required under an applicable standard or permit condition, the owner, operator, or representative shall comply with S.C. Regulation 61-62.1, Section IV - Source Tests.</p> <p>Unless approved otherwise by the Department, the owner, operator, or representative shall ensure that source tests are conducted while the source is operating at the maximum expected production rate or other production rate or operating parameter which would result in the highest emissions for the pollutants being tested. Some sources may have to spike fuels or raw materials to avoid being subjected to a more restrictive feed or process rate. Any source test performed at a production rate less than the rated capacity may result in permit limits on emission rates, including limits on</p>

B. LIMITATIONS, MONITORING, AND REPORTING

Condition Number	Conditions
	<p>production if necessary.</p> <p>When conducting source tests subject to this section, the owner, operator, or representative shall provide the following:</p> <ul style="list-style-type: none"> • Department access to the facility to observe source tests; • Sampling ports adequate for test methods; • Safe sampling site(s); • Safe access to sampling site(s); • Utilities for sampling and testing equipment; and • Equipment and supplies necessary for safe testing of a source. <p>The owner or operator shall comply with any limits that result from conducting a source test at less than rated capacity. A copy of the most recent Department issued source test summary letter, whether it imposes a limit or not, shall be maintained with the operating permit, for each source that is required to conduct a source test.</p> <p>Site-specific test plans and amendments, notifications, and source test reports shall be submitted to the Manager of the Source Evaluation Section, Bureau of Air Quality.</p>
B.5	<p>Emission Unit ID: 102, 107, 108 Equipment ID: 1650IR010, 0410FE010-070, 0510FE1/2/5/6, 0440FE010 Control Device ID: 0410AB010, 0410SC020, 0440AB010</p> <p>The owner/operator shall conduct a performance test for PM emissions from the Trash Incinerator 16-02 every two (2) years from the date of the last performance test.</p> <p>(SC Regulation 61.62.5 Standard 3 Section VIII(C)) The owner/operator shall conduct a performance test for Organic Destruction and Removal Efficiency (DRE), PM, CO, HCl, NO_x, Nickel, Cadmium, Chromium, Arsenic, and Lead emissions from the Tray Furnace Afterburner every two (2) years from the date of the last performance test. This is a State Only requirement.</p> <p>(SC Regulation 61.62.5 Standard 3 Section VIII(C)) The owner/operator shall conduct a performance test for CO emissions from the EAF Thermal Oxidizer every two (2) years from the date of the last performance test. This is a State Only requirement.</p>
B.6	<p>Emission Unit ID: All except 100, 101, 108 Equipment ID: All except 1610BO010, 1610BO020, 0440FE010 Control Device ID: All except 0440AB010, 0460SR010</p> <p>(S.C. Regulation 61-62.5, Standard No.4, Section IX) Where construction or modification began after December 31, 1985, emissions from these sources (including fugitive emissions) shall not exhibit an opacity greater than 20% each</p> <p>The owner or operator shall perform a visual inspection on a semiannual basis of sources subject to</p>

B. LIMITATIONS, MONITORING, AND REPORTING

Condition Number	Conditions
	<p>opacity limits. The inspection shall occur during normal source operation. No periodic monitoring for opacity will be required for sources during periods that only Natural Gas or Propane are being combusted. Logs shall be kept to record all visual inspections, noting color, duration, density (heavy or light), cause, and corrective action taken for any abnormal emissions. If a source did not operate during the required visual inspection time frame, the log shall indicate such. The owner or operator shall submit semiannual reports. The report shall include records of abnormal emissions, if any, and corrective actions taken. If only natural gas or propane was combusted or if the unit did not operate during the semiannual period, the report shall state so.</p> <p>Visual inspection means a qualitative observation of opacity during daylight hours. The observer does not need to be certified to conduct valid visual inspections. However, at a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, and observer position relative to lighting, wind, and the presence of uncombined water.</p>
B.7	<p>Emission Unit ID: 100 Equipment ID: 1610BO010</p> <p>(S.C. Regulation 61-62.5, Standard No. 5.2, Section III(A)) The owner/operator shall apply Low-NO_x Burners or equivalent technology to achieve 0.036 lb NO_x/10⁶ Btu</p> <p>(S.C. Regulation 61-62.5, Standard No. 5.2, Section VI) The owner/operator of a subject combustion source shall develop a tune-up plan and perform tune-ups every two years in accordance with manufacturer's specifications or with good engineering practices from start-up of operation for new sources or from replacement of a burner. All tune-up records are required to be maintained on site for a period of 5 years.</p>
B.8	<p>Emission Unit ID: 100 Equipment ID: 1610BO010</p> <p>Boiler No.1 is subject to New Source Performance Standard (NSPS), 40 CFR 60 and S.C. Regulation 61-62.60 Subpart A, General Provisions and Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, as applicable. The owner or operator shall comply with all applicable requirements of Subparts A and Dc.</p>
B.9	<p>Emission Unit ID: 100 Equipment ID: 1610BO010</p> <p>40CFR60.40c Applicability and delegation of authority.</p> <p>(a) Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h).</p>

B. LIMITATIONS, MONITORING, AND REPORTING

Condition Number	Conditions
B.10	<p>Emission Unit ID: 100 Equipment ID: 1610BO010</p> <p>40CFR60.48c Reporting and recordkeeping requirements</p> <p>(g)(1) Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.</p> <p>(g)(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO₂ standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.</p> <p>(g)(3) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in §60.42C to use fuel certification to demonstrate compliance with the SO₂ standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.</p> <p>(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.</p> <p>(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.</p>
B.11	<p>Emission Unit ID: 100, 101 Equipment ID: 1610BO010, 1610BO020</p> <p>(S.C. Regulation 61-62.5, Standard No. 1, Section I) These fuel burning source(s) shall not discharge into the ambient air smoke which exceeds 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.</p>
B.12	<p>Emission Unit ID: 100, 101 Equipment ID: 1610BO010, 1610BO020</p> <p>These sources are permitted to burn only Natural Gas and Propane as fuel. The use of any other substances as fuel is prohibited without prior written approval from the Department.</p>

B. LIMITATIONS, MONITORING, AND REPORTING

Condition Number	Conditions
B.13	<p>Emission Unit ID: 100, 101 Equipment ID: 1610BO010, 1610BO020</p> <p>(S.C. Regulation 61-62.5, Standard No.1, Section II) The allowable discharge of particulate matter resulting from fuel combustion is 0.6 pounds per million Btu input, each.</p>
B.14	<p>Emission Unit ID: 100, 101 Equipment ID: 1610BO010, 1610BO020</p> <p>(S.C. Regulation 61-62.5, Standard No.1, Section III) The maximum allowable discharge of sulfur dioxide (SO₂) resulting from fuel combustion is 2.3 pounds per million Btu input, each.</p>
B.15	<p>Emission Unit ID: All except 100, 101, 108 Equipment ID: All except 1610BO010, 1610BO020, 0440FE010 Control Device ID: All except 0440AB010, 0460SR010</p> <p>(S.C. Regulation 61-62.5, Standard No. 4, Section VIII) Particulate matter emissions shall be limited to the rate specified by use of the following equations:</p> <p>For process weight rates less than or equal to 30 tons per hour: $E = (F) 4.10P^{0.67}$ For process weight rates greater than 30 tons per hour: $E = (F) (55.0P^{0.11} - 40)$</p> <p>Where E = the allowable emission rate in pounds per hour P = process weight rate in tons per hour F = effect factor from Table B in S.C. Regulation 61-62.5, Standard No. 4</p> <p>For the purposes of compliance with this condition, the process boundaries are defined as follows:</p> <p>Confidential - Max Process Weight Rate Confidential</p>
B.16	<p>Emission Unit ID: 102 Equipment ID: 1650IR010 Control Device ID: None</p> <p>(S.C. Regulation 61-62.5 Standard No.3, Section IX) All incinerator operators of the Trash Incinerator 1650IR010 shall be trained based on criteria contained in S.C. Regulation 61-62.5 Standard No.3 Section IX(C) as to proper operating practices and procedure of the incinerator. The content of the above referenced training program, in addition to a list of trained personnel, has been submitted to the Department. The incinerator shall not be operated without a trained operator on site, who has a certificate verifying satisfactory completion of the training program. The training of Thermal Oxidizer operators is exempted as specified by S.C. Regulation 61-62.5, Standard No.3 Section IX(D). This is a State Only requirement.</p> <p>The Trash Incinerator is allowed to burn only non-hazardous materials for precious metal recovery. Any other materials are prohibited.</p>

B. LIMITATIONS, MONITORING, AND REPORTING

Condition Number	Conditions
	<p>If applicable, the Trash Incinerator is limited to the maximum charge rate specified in the most recent performance test. The owner/operator must record the actual charge rates daily. Reports of the production rate shall be maintained on-site.</p>
B.17	<p>Emission Unit ID: 108 Equipment ID: 0440FE010 Control Device ID: 0440AB010, 0460SR010</p> <p>(S.C. Regulation 61-62.5, Standard No.3, Section III (I)(1)) Each source shall not discharge into the ambient air smoke which exceeds an opacity of 20%. This is a State Only requirement.</p> <p>(S.C. Regulation 61-62.5, Standard No.3, Section III(I)(2)) Particulate matter emissions from each source shall not exceed 0.5 lb/10⁶ Btu total heat input. The total heat input value from waste and virgin fuel used for production shall not exceed the Btu used to affect the combustion of the waste and shall not include any Btu input from auxiliary burners located outside of the primary combustion chamber such as those found in secondary combustion chambers, tertiary combustion chambers or afterburners unless those auxiliary burners are fired with waste. In the case where waste is fired in the auxiliary burners located outside of the primary combustion chamber, only the Btu value of the fuel for the auxiliary burner which is from waste shall be added to the total heat input value. This is a State Only requirement.</p> <p>(S.C. Regulation 61-62.1 Section II(J)(2)) The owner/operator shall continue to operate and maintain combustion zone temperature indicators on each source. Temperature readings shall be recorded at least every fifteen (15) minutes during source operation. Maintenance shall be made according to manufacturer recommendations. Each afterburner or thermal oxidizer shall be in place and operational whenever processes controlled by it are running, except during periods of malfunction or mechanical failure.</p> <p>A minimum combustion zone temperature has been established to ensure proper operation of each afterburner or thermal oxidizer. These minimum temperatures were derived from stack test data, vendor certification, and/or operational history and visual inspections, which demonstrate the proper operation of the equipment. The facility shall maintain the established minimum combustion zone temperature and supporting documentation for this monitored parameter. The minimum combustion zone temperature may be updated following submittal to the Department.</p> <p>Each Thermal Oxidizer is permitted to burn only Natural Gas and Propane as fuels. The use of any other substances as fuel is prohibited without prior written approval from the Bureau of Air Quality.</p>
B.18	<p>Emission Unit ID: 107 Equipment ID: 0410FE010, 0410FE020, 0410FE030, 0410FE040, 0410FE050, 0410FE060, 0410FE070, 0510FE1, 0510FE2, 0510FE5, 0510FE6 Control Device ID: 0410AB010</p>

B. LIMITATIONS, MONITORING, AND REPORTING

Condition Number	Conditions																				
	<p>(S.C. Regulation 61-62.5, Standard No.3, Section VI(A)(2)(k), VI(A)(2)(e)(i) and Section VII(B)(1)(b)) The owner/operator shall continue to operate and maintain combustion zone temperature indicators on the Afterburner. Temperature readings shall be recorded at least every fifteen (15) minutes during source operation for the Afterburner. Maintenance checks for proper temperature indicator operation shall be made on at least a weekly basis. The Afterburner shall be in place and operational whenever processes controlled by it are running, except during periods of malfunction or mechanical failure. This is a State Only requirement.</p> <p>A minimum combustion zone temperature has been established to ensure proper operation of the Afterburner. This minimum temperature was derived from stack test data, vendor certification, and/or operational history and visual inspections, which demonstrate the proper operation of the equipment. The facility shall maintain the established minimum combustion zone temperature and supporting documentation for this monitored parameter. The minimum combustion zone temperature may be updated following submittal to the Department.</p>																				
B.19	<p>Emission Unit ID: 107 Equipment ID: 0410FE010, 0410FE020, 0410FE030, 0410FE040, 0410FE050, 0410FE060, 0410FE070, 0510FE1, 0510FE2, 0510FE5, 0510FE6 Control Device ID: 0410AB010, 0410SC020</p> <p>(S.C. Regulation 61-62.5, Standard No.3 as outlined in Construction Permit 1820-0033-ET-R3) This is a State Only requirement. The following emission limits and requirements listed in the table below apply to each source:</p> <table data-bbox="380 1215 1424 1803"> <tr> <th>Pollutant/Parameter</th><th>Emission Limit/Requirement</th></tr> <tr> <td>PM</td><td>3.0 lb/hr</td></tr> <tr> <td>Ni</td><td>0.023 lb/hr</td></tr> <tr> <td>Cd</td><td>0.015 lb/hr</td></tr> <tr> <td>Cr</td><td>0.021 lb/hr</td></tr> <tr> <td>As</td><td>0.027 lb/hr</td></tr> <tr> <td>Pb</td><td>0.024 lb/hr</td></tr> <tr> <td>HCl</td><td>4.5 lb/hr</td></tr> <tr> <td>POHC DRE</td><td>99.99%</td></tr> <tr> <td>Opacity</td><td>20%</td></tr> </table> <p>(S.C. Regulation 61-62.5, Standard No.3, Section IX) All Tray Furnace operators shall be trained based</p>	Pollutant/Parameter	Emission Limit/Requirement	PM	3.0 lb/hr	Ni	0.023 lb/hr	Cd	0.015 lb/hr	Cr	0.021 lb/hr	As	0.027 lb/hr	Pb	0.024 lb/hr	HCl	4.5 lb/hr	POHC DRE	99.99%	Opacity	20%
Pollutant/Parameter	Emission Limit/Requirement																				
PM	3.0 lb/hr																				
Ni	0.023 lb/hr																				
Cd	0.015 lb/hr																				
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POHC DRE	99.99%																				
Opacity	20%																				

B. LIMITATIONS, MONITORING, AND REPORTING

Condition Number	Conditions										
	<p>on criteria contained in S.C. Regulation 61-62.5, Standard No.3 Section IX(C) as to proper operating practices and procedure of the furnace. The content of the above referenced training program, in addition to a list of trained personnel, has been submitted to the Department. The Tray Furnaces (04-01) shall not be operated without a trained operator on site, who has a certificate verifying satisfactory completion of the training program.</p>										
B.20	<p>Emission Unit ID: 107, 108, 109, 154, 155, 156 Equipment ID: All Control Device ID: 0410SC020, 0460SR010, 0610SR010/020, 0615SR010/020, 2110SR010, 2120SR010, 1211SR150, 0811SR310</p> <p>(S.C. Regulation 61-62.1.70.6 (a)(3)) The owner/operator shall continue to operate and maintain liquid flow meters on each scrubber used for emission control. This monitored parameter shall be recorded in accordance with the following frequency:</p> <table data-bbox="354 892 1448 1201"> <tr> <th>Control Device ID</th><th>Monitoring Frequency</th></tr> <tr> <td>0410SC020, 0460SR010, 0610SR010/020, 0615SR010/020</td><td>Daily Each</td></tr> <tr> <td>Central No-NOx Scrubber (2110SR010)</td><td>Daily</td></tr> <tr> <td>Central Ammonia Scrubber (2120SR010)</td><td>Daily</td></tr> <tr> <td>1211SR150, 0811SR310</td><td>Each Shift</td></tr> </table> <p>Operation and maintenance checks shall be made on at least a weekly basis. Each scrubber shall be in place and operational whenever processes controlled by it are running, except during periods of scrubber malfunction or mechanical failure.</p> <p>A minimum flow rate has been established to ensure proper operation of the pollution control equipment. These minimums for the monitored parameter were derived from stack test data, vendor certification, and/or operational history and visual inspections, which demonstrate the proper operation of the equipment. The facility shall maintain the established minimums and supporting documentation for this monitored parameter. These minimums may be updated by completing a new performance test, following submittal of a new performance test plan to the Department.</p>	Control Device ID	Monitoring Frequency	0410SC020, 0460SR010, 0610SR010/020, 0615SR010/020	Daily Each	Central No-NOx Scrubber (2110SR010)	Daily	Central Ammonia Scrubber (2120SR010)	Daily	1211SR150, 0811SR310	Each Shift
Control Device ID	Monitoring Frequency										
0410SC020, 0460SR010, 0610SR010/020, 0615SR010/020	Daily Each										
Central No-NOx Scrubber (2110SR010)	Daily										
Central Ammonia Scrubber (2120SR010)	Daily										
1211SR150, 0811SR310	Each Shift										
B.21	<p>Emission Unit ID: 107, 108, 109, 115, 120, 154, 155 Equipment ID: All Control Device ID: 0410SC020, 0460SR010, 0610SR010/020, 0615SR010/020, 2110SR010, 2120SR010</p> <p>(S.C. Regulation 61-62.1.70.6 (a)(3)) The owner/operator shall continue to operate and maintain pH meters on each scrubber used for emission control. This monitored parameter shall be recorded in accordance with the following frequency:</p>										

B. LIMITATIONS, MONITORING, AND REPORTING

Condition Number	Conditions									
		<table><tr><th>Control Device ID</th><th>Monitoring Frequency</th></tr><tr><td>0410SC020, 0460SR010, 0610SR010/020, 0615SR010/020</td><td>Daily Each</td></tr><tr><td>Central No-NOx Scrubber (2110SR010)</td><td>Daily</td></tr><tr><td>Central Ammonia Scrubber (2120SR010)</td><td>Daily</td></tr></table>	Control Device ID	Monitoring Frequency	0410SC020, 0460SR010, 0610SR010/020, 0615SR010/020	Daily Each	Central No-NOx Scrubber (2110SR010)	Daily	Central Ammonia Scrubber (2120SR010)	Daily
	Control Device ID	Monitoring Frequency								
	0410SC020, 0460SR010, 0610SR010/020, 0615SR010/020	Daily Each								
	Central No-NOx Scrubber (2110SR010)	Daily								
	Central Ammonia Scrubber (2120SR010)	Daily								
<p>Operation and maintenance checks shall be made on at least a weekly basis. Each scrubber shall be in place and operational whenever processes controlled by it are running, except during periods of scrubber malfunction or mechanical failure.</p> <p>A minimum or maximum pH has been established to ensure proper operation of the pollution control equipment. These minimums or maximums for the monitored parameter were derived from stack test data, vendor certification, and/or operational history and visual inspections, which demonstrate the proper operation of the equipment. The facility shall maintain the established minimums or maximums and supporting documentation for this monitored parameter. These minimums or maximums may be updated by completing a new performance test, following submittal of a new performance test plan to the Department.</p>										
B.22	<p>Emission Unit ID: 155, 156 Equipment ID: All Control Device ID: 1211SR150, 0811SR310</p> <p>(S.C. Regulation 61-62.1.70.6 (a)(3)) The owner/operator shall continue to operate and maintain pressure drop indicators meters on each scrubber used for emission control. This monitored parameter shall be recorded in accordance with the following frequency:</p> <table><tr><th>Control Device ID</th><th>Monitoring Frequency</th></tr><tr><td>1211SR150</td><td>Per Shift</td></tr><tr><td>0811SR310</td><td>Per Shift</td></tr></table>		Control Device ID	Monitoring Frequency	1211SR150	Per Shift	0811SR310	Per Shift		
	Control Device ID	Monitoring Frequency								
	1211SR150	Per Shift								
	0811SR310	Per Shift								
	<p>Operation and maintenance checks shall be made on at least a weekly basis. Each scrubber shall be in place and operational whenever processes controlled by it are running, except during periods of scrubber malfunction or mechanical failure.</p> <p>Operational ranges for the pressure drop have been established to ensure proper operation of the pollution control equipment. These operational ranges for the monitored parameter were derived from stack test data, vendor certification, and/or operational history and visual inspections, which demonstrate the proper operation of the equipment. The facility shall maintain the established ranges</p>									

B. LIMITATIONS, MONITORING, AND REPORTING

Condition Number	Conditions															
	and supporting documentation for this monitored parameter. Operating ranges may be updated by completing a new performance test, following submittal of a new performance test plan to the Department.															
B.23	<p>Emission Unit ID: 150 Equipment ID: All Control Device ID: 2130SR011, 2130SR021, 2130SR040, 2130SR050</p> <p>(S.C. Regulation 61-62.1.70.6 (a)(3)) The owner/operator shall continue to operate and maintain meters on each scrubber module of the Central NOx Scrubber System (Exhaust Point 21-01) as follows for the listed monitored parameters:</p> <table><tr><th>Control Device ID</th><th>Monitored Parameters</th><th>Monitoring Frequency</th></tr><tr><td>2130SR011</td><td>Flow Rate, and pH</td><td>Daily</td></tr><tr><td>2130SR021</td><td>Flow Rate, pH, and ORP</td><td>Daily</td></tr><tr><td>2130SR040</td><td>Flow Rate and Chemical Oxidizer Titration</td><td>Daily</td></tr><tr><td>2130SR050</td><td>Flow Rate, pH, and ORP</td><td>Daily</td></tr></table> <p>These monitored parameters shall be recorded daily during source operation. The chemical oxidizer percentage shall be measured only for Scrubber 2130SR040 when in operation by titrating a grab sample. Operation and maintenance checks shall be made on at least a weekly basis. Each scrubber shall be in place and operational whenever processes controlled by it are running, except during periods of scrubber malfunction or mechanical failure.</p> <p>A minimum Flow Rate, pH, ORP and Chemical Oxidizer percentage have been established to ensure proper operation of the pollution control equipment. These minimums for the monitored parameters were derived from stack test data, vendor certification, and/or operational history and visual inspections, which demonstrate the proper operation of the equipment. The facility shall maintain the established minimums and supporting documentation for these monitored parameters. These minimums may be updated by completing a new performance test, following submittal of a new performance test plan to the Department.</p>	Control Device ID	Monitored Parameters	Monitoring Frequency	2130SR011	Flow Rate, and pH	Daily	2130SR021	Flow Rate, pH, and ORP	Daily	2130SR040	Flow Rate and Chemical Oxidizer Titration	Daily	2130SR050	Flow Rate, pH, and ORP	Daily
Control Device ID	Monitored Parameters	Monitoring Frequency														
2130SR011	Flow Rate, and pH	Daily														
2130SR021	Flow Rate, pH, and ORP	Daily														
2130SR040	Flow Rate and Chemical Oxidizer Titration	Daily														
2130SR050	Flow Rate, pH, and ORP	Daily														
B.24	<p>Emission Unit ID: 108 Equipment ID: 0440FE010 Control Device ID: 0440AB010</p> <p>To meet the requirements of 40 CFR 64 for the EAF Thermal Oxidizer 0440AB010 of Emission Unit No. 108, the indicator for CO shall be Combustion Chamber Outlet Temperature. The owner or operator shall continue to operate, and maintain a temperature measuring instrument at the appropriate monitoring location as the measurement approach. Temperature shall be used to provide assurance</p>															

B. LIMITATIONS, MONITORING, AND REPORTING

Condition Number	Conditions
	<p>of compliance. The EAF Thermal Oxidizer shall be in place and operational whenever processes controlled by it are running, except during periods of malfunction or mechanical failure.</p> <p>The operational temperature shall be greater than 1,380°F. This operational temperature was derived from data, which demonstrate a reasonable assurance of compliance. Temperature readings shall be recorded every fifteen (15) minutes.</p> <p>QA/QC practices, etc. shall consist of following the manufacturer recommendations which includes an annual calibration of the thermocouple.</p> <p>An excursion is defined as any operating condition where the temperature is any 1 hour average temperature less than 1,380°F. Upon detecting an excursion, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing any startup, shutdown or malfunction period and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion (other than those caused by excused startup and shutdown conditions).</p> <p>The owner or operator shall develop, implement, and maintain a Quality Improvement Plan (QIP) as specified in 40 CFR 64.8, when a pollutant-specific emission unit has accumulated exceedances or excursions exceeding 5 percent duration of the unit's operating time for a reporting period, or when instructed to do so by the Department pursuant to 40 CFR 64.7(d)(2).</p> <p>A semiannual report for monitoring shall include, at a minimum, the information required under S.C. Regulation 61-70.6(a)(3)(iii) and the following information as applicable:</p> <ul style="list-style-type: none"> • Summary information of the number, duration, and cause (including unknown cause, if applicable) of excursions, as applicable, and the corrective actions taken; • Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); • If applicable, a description of the actions taken to implement a Quality Improvement Plan (QIP) during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions occurring. <p>The owner or operator shall maintain records of monitoring data, monitor performance data, corrective action, and quality improvement plans. The records shall include calculations of the percent</p>

B. LIMITATIONS, MONITORING, AND REPORTING

Condition Number	Conditions												
	duration of accumulated exceedances or excursions during the reporting period per pollutant-specific emission unit, updated monthly.												
B.25	Emission Unit ID: 108, 109, 154 Equipment ID: All Control Device ID: All												
	(S.C. Regulation 61-62.1, Section II(E) (PSD Avoidance)) Process emissions are limited to the following:												
	<table><tr><th>Emission Unit</th><th>Process</th><th>Pollutant</th><th>Limit</th></tr><tr><td>108</td><td>Electric Arc Furnace Process 04-03</td><td>CO</td><td>100.0 tpy</td></tr><tr><td>109, 154</td><td>TBRC-1, TBRC-2</td><td>SO₂</td><td>40.0 tpy Each</td></tr></table>	Emission Unit	Process	Pollutant	Limit	108	Electric Arc Furnace Process 04-03	CO	100.0 tpy	109, 154	TBRC-1, TBRC-2	SO ₂	40.0 tpy Each
	Emission Unit	Process	Pollutant	Limit									
	108	Electric Arc Furnace Process 04-03	CO	100.0 tpy									
	109, 154	TBRC-1, TBRC-2	SO ₂	40.0 tpy Each									
	The owner/operator shall maintain production records and any other records necessary to determine process CO emissions. CO emissions shall be calculated on a monthly basis, and a twelve month rolling sum shall be calculated for total CO emissions. Emissions from malfunctions are required to be quantified and included in the calculations. The twelve month rolling sum shall be less than 100 tons for CO emissions. Reports of the calculated values and the twelve-month rolling sum, calculated for each month in the reporting period, shall be submitted semiannually.												
	The owner/operator shall maintain sulfur content and alloy mass addition records and any other records necessary to determine process SO ₂ emissions. SO ₂ emissions shall be calculated on a monthly basis, and a twelve month rolling sum shall be calculated for total SO ₂ emissions. Emissions from malfunctions are required to be quantified and included in the calculations. The twelve month rolling sum shall be less than 40 tons. Reports of the calculated values and the twelve-month rolling sum, calculated for each month in the reporting period, shall be submitted semiannually.												
	The algorithms, explaining the method used to determine emission rates, are provided below. The results of these algorithms are used to calculate the monthly and twelve-month rolling sum. These established algorithms may only be updated through the appropriate Title V modification.												
	<u>EAF using Process Factor from Stack Test Results and Combustion Emissions from AP-42 Factors</u> Factor (lb/hr) x Operating Hours (hr) Factor (lb/mmBtu) x Heat Input Rating (mmBtu/hr) x Operating Hours (hr) Process Emissions + Combustion Emissions												
<u>TBRC-1 using Process Factor from Stack Test Results and Combustion Emissions from AP-42 Factors</u> Feed Rate (lbs/month) x Material Composition (% weight) x Control Efficiency (1-%) Factor (lb/k-gal Propane) x Fuel Use (gal/month) / 1,000 gal/k-gal Factor (lb/mmBtu) x Heat Input Rating (mmBtu/hr) x Operating Hours (hr)													

B. LIMITATIONS, MONITORING, AND REPORTING

Condition Number	Conditions
	<p>Factor (lb/mmBtu) x Heat Input Rating (mmBtu/hr) x Operating Hours (hr) Process Emissions + Propane Emissions (LOH1) + Combustion Emissions (WBH1 and COS1)</p> <p><u>TBRC-2 using Process Factor from Stack Test Results and Combustion Emissions from AP-42 Factors</u> Feed Rate (lbs/month) x Material Composition (% weight) x Control Efficiency (1-%) Factor (lb/k-gal Propane) x Fuel Use (gal/month) / 1,000 gal/k-gal Factor (lb/mmBtu) x Heat Input Rating (mmBtu/hr) x Operating Hours (hr) Factor (lb/mmBtu) x Heat Input Rating (mmBtu/hr) x Operating Hours (hr) Process Emissions + Propane Emissions (LOH2) + Combustion Emissions (WBH2 and COS2)</p>
B.26	<p>Emission Unit ID: All Equipment ID: All Control Device ID: All</p> <p>(S.C. Regulation 61-62.1, Section II(E)) This facility has established federally enforceable emissions limitations to limit its potential to emit to less than 10.0 tons per year for any single HAP emission and 25.0 tons per year for any combination of HAP emissions to avoid MACT.</p> <p>The owner/operator shall maintain records of all hazardous air pollutants (HAP). These records shall include the total amount of each material used, the HAP content in percent by weight of each material, and any other records necessary to determine HAP emissions. HAP emissions shall be calculated on a monthly basis, and a twelve-month rolling sum shall be calculated for individual HAP and total HAP emissions. Emissions from malfunctions are required to be quantified and included in the calculations. The twelve-month rolling sum shall be less than 10 tons for individual hap and 25 tons for total HAP. Reports of the calculated values and the twelve-month rolling sum, calculated for each month in the reporting period, shall be submitted semiannually.</p> <p>The algorithms, explaining the method used to determine emission rates, are provided below. The results of these algorithms are used to calculate the monthly and twelve-month rolling sum. These established algorithms may only be updated through the appropriate Title V modification.</p> <p><u>Process Emissions using Process Factor and Control Efficiency from Stack Test Results</u> Factor (lb/hr) x Operating Hours (hr) Burn Rate (lb/month) x Material Composition (% weight) x Control Efficiency (1-%) Feed Rate (lb/month) x Material Composition (% weight) x Control Efficiency (1-%)</p> <p><u>Batch Process Emissions using Stack Test Results for Control Efficiency</u> Batch data (troy oz/month) x product specific factor (lb/troy oz) x 1 - control efficiency% Factor (lb/batch) x # batches per month</p> <p><u>Combustion Emissions using AP-42 Factors</u> Factor (lb/mmBtu) x Heat Input Rating (mmBtu/hr) x Operating Hours (hr)</p>

B. LIMITATIONS, MONITORING, AND REPORTING	
Condition Number	Conditions
	Factor (lb/mmescf) x Heat Input Rating (mmBtu/hr) x Heat Content (mmescf/mmBtu) x Operating Hours (hr) Factor (lb/k-gal Propane) x Fuel Use (gal/month) / 1,000 gal/k-gal
B.27	Emission Unit ID: 109, 154 Equipment ID: 0610FE100, 0615FE200 Control Device ID: 0610SR010-20, 0615SR010/020 (S.C. Regulation 61-62.1, Section II(J)(2)) The owner/operator shall conduct a performance test every two (2) years from the date of the previous test to confirm that the Scrubber DRE for SO ₂ emissions is equal to or greater than 98%.
B.28	Emission Unit ID: 154 Equipment ID: All Control Device ID: 0615SR010/20 (S.C. Regulation 61-62.1, Section II(J)(2)) TBRC-1 and TBRC-2 are allowed to operate simultaneously at a Sulfur loading of 48 kg/hr each once Scrubber 0615SR010/020 is in operation.
B.29	Emission Unit ID: 151 Equipment ID: 3240TK010, 3240TK020 These sources are subject to New Source Performance Standard (NSPS), 40CFR60 and S.C. Regulation 61-62.60, Subpart A, General Provisions and Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, as applicable. The owner or operator shall comply with all applicable requirements of Subparts A and Kb.
B.30	Emission Unit ID: 151 Equipment ID: 3240TK010, 3240TK020 40CFR60.110b Applicability and designation of affected facility. (a) Except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m ³) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984. (b) This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m ³ storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m ³ but less than 151 m ³ storing a liquid with a maximum true vapor pressure less than 15.0 kPa.
B.31	Emission Unit ID: 151 Equipment ID: 3240TK010, 3240TK020 40CFR60.116b Monitoring of operations

B. LIMITATIONS, MONITORING, AND REPORTING

Condition Number	Conditions
	<p>(a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.</p> <p>(b) The owner or operator of each storage vessel as specified in §60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.</p>
B.32	<p>Emission Unit ID: All Equipment ID: All Control Device ID: All</p> <p>The owner/operator shall maintain production rate records, fuel usage records, and any other records necessary to determine Lead emissions. All emissions shall be calculated on an annual basis, in tons per year on a calendar year basis, for a period of five years.</p> <p>If the annual emissions exceed the baseline actual emissions established within the construction permit application and Construction Permit 1820-0033-IF issued on November 8, 2019 for this project by a significant amount (as defined in S.C. Regulation 62.5, Standard No.7 (b) (49)) for any regulated NSR pollutant, the owner/operator shall submit a report to the Department within 60 days after the end of such year. The report shall contain the following:</p> <ol style="list-style-type: none"> 1. The facility's name, address, and telephone number; 2. The annual emissions as calculated pursuant to S.C. Regulation 62.5, Standard No. 7 (r)(6)(iii); and <p>Any other information needed to make a compliance determination (e.g., an explanation as to why the emissions differ from the preconstruction projection).</p>
B.33	<p>Emission Unit ID: 155 Equipment ID: 1435RC010, 1211RC100, 1211RC110, 1435TK020 Control Device ID: 1211SR150</p> <p>(S.C. Regulation 61-62.1, Section II(J)(2)) The owner/operator shall conduct a performance test every five (5) years from the date of the previous test to confirm the HCl and Cl₂ emission factor(s) of the Dissolution Chlorine Scrubber. If resulting HCl emissions are below the detectable levels of the test, then further testing for HCl will not be required for subsequent tests.</p>
B.34	<p>Emission Unit ID: 156 Equipment ID: 0811TK020, 0811TK030, 0811TK120, 0811TK265 Control Device ID: 2110SR010, 0811SR310</p> <p>(S.C. Regulation 61-62.1, Section II(J)(2)) In order to remain in compliance with existing facility-wide HAP limits, the existing Refinery Intermediate Scrubber and Packed Scrubber for Central NoNOx Scrubber</p>

B. LIMITATIONS, MONITORING, AND REPORTING	
Condition Number	Conditions
	System shall be operating at all times when the Refining tanks listed above are operating.
B.35	<p>Emission Unit ID: 155 Equipment ID: All</p> <p>It has been determined that this facility is subject to S.C. Regulation 61-62.68, Chemical Accident Prevention Provisions, due to in-process storage or use of a regulated substance in quantities above the specified threshold and that a Risk Management Plan (RMP) has already been submitted to the EPA; therefore, the following must be completed:</p> <ul style="list-style-type: none"> • Submittal of subsequent revisions/corrections/updates of the RMP in accordance with S.C. Regulation 61-62.68.190 and 68.195. • For Program 1 processes, the owner or operator shall submit along with the RMP the certification statement provided in Section 68.12(b)(4). For all other covered processes, the owner or operator shall submit along with the RMP a single certification that, to the best of the signer's knowledge, information, and belief formed after reasonable inquiry, the information submitted is true, accurate, and complete. <p>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.</p>
B.36	<p>Emission Unit ID: 102 Equipment ID: 1650IR010 Control Device ID: None</p> <p>(S.C. Regulation 61-62.5, Standard No. 5.2, Section V) The allowable discharge of NO_x resulting from this source is 0.784 lb/hr.</p> <p>(S.C. Regulation 61-62.5, Standard No. 5.2, Section VII) The owner or operator shall perform tune-ups every twenty-four (24) months in accordance with manufacturer's specifications or with good engineering practices. The first tune-up shall be conducted no more than twenty-four (24) months from replacement of a burner assembly for affected existing sources. Each subsequent tune-up shall be conducted no more than twenty-four (24) months after the previous tune-up.</p> <p>All tune-up records are required to be maintained on site and available for inspection by the Department for a period of five (5) years from the date generated.</p>

C. NESHAP (40 CFR 61 AND 40 CFR 63)	
Condition Number	Conditions
C.1	(40 CFR §61.04(b); 40 CFR §63.9(a)(4)(ii) and §63.10(a)(4)(ii)) All NESHAP notifications and reports shall be sent to the Department. Electronic submission of notifications or reports to the United States Environmental Protection Agency (US EPA) via CEDRI (Compliance and Emissions Data Reporting Interface) shall serve as the submission to the Department. CEDRI can be accessed through the EPA's Central Data Exchange (CDX).
C.2	(40 CFR §61.04(b); 40 CFR §63.9(a)(4)(ii) and §63.10(a)(4)(ii)) All NESHAP notifications and reports requiring electronic submission to US EPA shall be submitted to EPA via CEDRI. Notifications and reports for specific NESHAP subparts not yet requiring electronic submission may also be submitted via CEDRI. Notifications and the accompanying cover letter for periodic reports not submitted via CEDRI shall be sent to the US EPA Region 4 Air and Radiation Division as required by the applicable subpart.
C.3	<p>Emergency engines less than or equal to 150 kilowatt (kW) rated capacity, emergency engines greater than 150 kW rated capacity designated for emergency use only and operated a total of 500 hours per year or less for testing and maintenance and have a method to record the actual hours of use, such as an hour meter, and diesel engine driven emergency fire pumps that are operated a total of 500 hours per year or less for testing and maintenance and have a method to record the actual hours of use, such as an hour meter, have been determined to be exempt from construction permitting requirements in accordance with S.C. Regulation 61-62.1.</p> <p>(40 CFR 60; 40 CFR 63) If present, these sources shall still comply with the requirements of all applicable regulations, including but not limited to the following:</p> <p>New Source Performance Standards (NSPS) 40 CFR 60 Subpart A (General Provisions); NSPS 40 CFR 60 Subpart IIII (Stationary Compression Ignition Internal Combustion Engines); NSPS 40 CFR 60 Subpart JJJJ (Stationary Spark Ignition Internal Combustion Engines); National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 63 Subpart A (General Provisions); and NESHAP 40 CFR 63 Subpart ZZZZ (Stationary Reciprocating Internal Combustion Engines).</p>

D. GENERAL FACILITY WIDE	
Condition Number	Conditions
D.1	The owner or operator shall comply with S.C. Regulation 61-62.2, Prohibition of Open Burning.
D.2	The owner or operator shall comply with S.C. Regulation 61-62.3, Air Pollution Episodes.
D.3	The owner or operator shall comply with S.C. Regulation 61-62.4, Hazardous Air Pollution Conditions.
D.4	The owner or operator shall comply with S.C. Regulation 61-62.6, Control of Fugitive Particulate Matter, Section III Control of Fugitive Particulate Matter Statewide.
D.5	The owner or operator shall comply with the standards of performance for asbestos abatement operations pursuant to 40 CFR Part 61.145 and S.C. Regulation 61-86.1, including, but not limited to,

D. GENERAL FACILITY WIDE	
Condition Number	Conditions
	requirements governing training, licensing, notification, work practice, cleanup, and disposal.
D.6	The owner or operator shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, Protection of Stratospheric Ozone, Recycling and Emissions Reduction, except as provided for motor vehicle air conditioners (MVACs) in Subpart B. If the owner or operator performs a service on motor vehicles (fleet) that involves ozone-depleting substance refrigerant in MVACs, the owner or operator is subject to all applicable requirements of 40 CFR Part 82, Subpart B, Servicing of MVACs.
D.7	(S.C. Regulation 61-62.70.6(a)(5)) The provisions of this permit are severable, and if any provision of this permit, or application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.
D.8	(S.C. Regulation 61-62.70.6(a)(6)(i)) The owner or operator must comply with all of the conditions of this permit. Any permit noncompliance constitutes a violation of the S.C. Pollution Control Act and/or the Federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of permit renewal application.
D.9	(S.C. Regulation 61-62.70.6(a)(6)(ii)) It shall not be a defense for an owner or operator in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
D.10	(S.C. Regulation 61-62.70.6(a)(6)(iii)) The permit may be modified, revoked, reopened and reissued, or terminated for cause by the Department. The filing of a request by the owner or operator for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
D.11	(S.C. Regulation 61-62.70.6(a)(6)(iv)) The permit does not convey any property rights of any sort, or any exclusive privilege.
D.12	(S.C. Regulation 61-62.70.6(a)(6)(v)) The owner or operator shall furnish to the Department, within a reasonable time, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the owner or operator shall also furnish to the Department copies of records required to be kept by the permit or, for information claimed to be confidential, the owner or operator may furnish such records directly to the Administrator along with a claim of confidentiality. The Department may also request that the owner or operator furnish such records directly to the Administrator along with a claim of confidentiality.
D.13	(S.C. Regulation 61-62.70.6(a)(8)) No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
D.14	(S.C. Regulation 61-62.70.6(c)(2)) Upon presentation of credentials and other documents as may be required by law, the owner or operator shall allow the Department or an authorized representative to perform the following: <ol style="list-style-type: none"> 1. Enter upon the owner or operator's premises where a Part 70 source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit. 2. Have access to and copy, at reasonable times, any records that must be kept under the

D. GENERAL FACILITY WIDE	
Condition Number	Conditions
	<p>conditions of the permit.</p> <ol style="list-style-type: none"> Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit. As authorized by the Act and/or the S.C. Pollution Control Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.
D.15	<p>(S.C. Regulation 61-62.70.6(g)) In the case of an emergency, as defined in S.C. Regulation 61-62.70.6(g)(1), the owner or operator shall demonstrate an affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:</p> <ol style="list-style-type: none"> An emergency occurred and that the owner or operator can identify the cause(s) of the emergency; The permitted facility was at the time being properly operated; and During the period of the emergency the owner or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and The owner or operator 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 S.C. 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. <p>This provision is in addition to any emergency or upset provision contained in any applicable requirement. In any enforcement proceeding, the owner or operator seeking to establish the occurrence of an emergency has the burden of proof.</p>
D.16	<p>(S.C. Regulation 61-62.70.6(a)(1)(ii)) Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be incorporated into the permit and shall be enforceable by the Administrator.</p>
D.17	<p>(S.C. Regulation 61-62.70.6(a)(4)) The owner or operator is prohibited from emissions exceeding any allowances that the source lawfully holds under Title IV of the Act or the regulations promulgated thereunder. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit revision under any other applicable requirement. No limit shall be placed on the number of allowances held by a source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement. Any such allowances shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Act.</p>
D.18	<p>(S.C. Regulation 61-62.70.7(c)(1)(ii)) Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with S.C. Regulation 61-62.70.5(a)(1)(iii), 62.70.5(a)(2)(iv), and 62.70.7(b). In this case, the permit shall not expire until the</p>

D. GENERAL FACILITY WIDE	
Condition Number	Conditions
	renewal permit has been issued or denied. All terms and conditions of the permit including any permit shield that may be granted pursuant to S.C. Regulation 61-62.70.6(f) shall remain in effect until the renewal permit has been issued or denied.
D.19	(S.C. Regulation 61-62.70.7) Requests for permit modification and amendments shall be submitted on the appropriate Department approved Title V Modification Form(s).
D.20	(S.C. Regulation 61-62.70.6(a)(7)) The owners or operators of Part 70 sources shall pay fees to the Department consistent with the fee schedule approved pursuant to S.C. Regulation 61-62.70.9; and in accordance with S.C. Regulation 61-30, Environmental Protection Fees. Failure to pay applicable fee can be considered grounds for permit revocation.
D.21	(S.C. Regulation 61-62.1, Section III) The owners or operators of Part 70 sources shall complete and submit a new updated emissions inventory consistent with the schedule approved pursuant to S.C. Regulation 61-62.1, Section III. These reports shall be submitted to the Department. This requirement notwithstanding, an emissions inventory may be required at any time in order to determine the compliance status of any facility.
D.22	This permit expressly incorporates insignificant activities. Emissions from insignificant activities shall be included in the emissions inventory submittals as required by S.C. Regulation 61-62.1, Section III(B)(2)(g).
D.23	(S.C. Regulation 61-62.1, Section II(J)(1)(a)) No applicable law, regulation, or standard will be contravened.
D.24	(S.C. Regulation 61-62.1, Section II(J)(1)(e)) Any owner or operator who constructs or operates a source or modification not in accordance with the application submitted pursuant to S.C. Regulation 61-62.1 or with the terms of any approval to construct, or who commences construction after the effective date of S.C. Regulation 61-62.1 without applying for and receiving approval hereunder, shall be subject to enforcement action.

E. GENERAL RECORD KEEPING AND REPORTING	
Condition Number	Conditions
E.1	(S.C. Regulation 61-62.1, Section II(J)(1)(g)) A copy of the Department issued construction and/or operating permit must be kept readily available at the facility at all times. The owner or operator shall maintain such operational records; make reports; install, use, and maintain monitoring equipment or methods; sample and analyze emissions or discharges in accordance with prescribed methods at locations, intervals, and procedures as the Department shall prescribe; and provide such other information as the Department reasonably may require. All records required to demonstrate compliance with the limits established under this permit shall be maintained on site for a period of at least five (5) years from the date the record was generated and shall be made available to a Department representative upon request.
E.2	(S.C. Regulation 61-62.70.6(a)(3)(iii)(A)) The owner or operator shall submit reports required in this

E. GENERAL RECORD KEEPING AND REPORTING	
Condition Number	Conditions
	<p>permit in a timely manner and according to the reporting schedule that has previously been established through the Department's approved electronic permitting system.</p> <p>All required reports must be certified by a responsible official consistent with S.C. Regulation 61-62.70.5(d).</p>
E.3	(S.C. Regulation 61-62.70.6(a)(3)(iii)) All reports and notifications required under this permit shall be submitted to the Department.
E.4	(S.C. Regulation 61-62.70.6(c)(5)(iv)) All Title V Annual Compliance Certifications shall be sent to the US EPA, Region 4, Air Enforcement Branch and to the Department. These reports can be submitted electronically to EPA through CEDRI.
E.5	<p>(S.C. Regulation 61-62.70.6(a)(3)(ii)) The owner or operator shall comply, where applicable, with the following monitoring/support information collection and retention record keeping requirements:</p> <ol style="list-style-type: none"> Records of required monitoring information shall include the following: <ol style="list-style-type: none"> The date, place as defined in the permit, and time of sampling or measurements; The date(s) analyses were performed; The company or entity that performed the analyses; The analytical techniques or methods used; The results of such analyses; and The operating conditions as existing at the time of sampling or measurement; Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
E.6	<p>(S.C. Regulation 61-62.1, Section II(J)(1)(c)) For sources not required to have continuous emission monitors, any malfunction of air pollution control equipment or system, process upset, or other equipment failure which results in discharges of air contaminants lasting for one (1) hour or more and which are greater than those discharges described for normal operation in the permit application, shall be reported to the Department within twenty-four (24) hours after the beginning of the occurrence and a written report shall be submitted to the Department within thirty (30) days. The written report shall include, at a minimum, the following:</p> <ol style="list-style-type: none"> The identity of the stack and/or emission point where the excess emissions occurred; The magnitude of excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the excess emissions; The time and duration of excess emissions; The identity of the equipment causing the excess emissions;

E. GENERAL RECORD KEEPING AND REPORTING	
Condition Number	Conditions
	<ol style="list-style-type: none"> 5. The nature and cause of such excess emissions; 6. The steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunction; 7. The steps taken to limit the excess emissions; and, 8. Documentation that the air pollution control equipment, process equipment, or processes were at all times maintained and operated, to the maximum extent practicable, in a manner consistent with good practice for minimizing emissions. <p>The initial twenty-four (24) hour notification should be made to the Department's local Regional Office.</p> <p>The written report should be sent to the Department.</p>
E.7	<p>(S.C. Regulation 61-62.70.6(c)(5)(iii)) The responsible official shall certify annually, compliance with the conditions of this permit as required under S.C. Regulation 61-62.70.6(c). The compliance certification shall include the following:</p> <ol style="list-style-type: none"> 1. The identification of each term or condition of the permit that is the basis of the certification. 2. The identification of the method(s) or means used by the owner or operator for determining the compliance status with each term and condition of the permit during the certification period. 3. The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in S.C. Regulation 61-62.70.6(c)(5)(iii)(B). The certification shall identify each deviation and take it into account in the compliance certification. 4. Such other facts as the Department may require to determine the compliance status of the source.
E.8	<p>(S.C. Regulation 61-62.1, Section II(M)) Within thirty (30) days of the transfer of ownership/operation of a facility, the current permit holder and prospective new owner or operator shall submit to the Department a written request for transfer of the source operating or construction permits. The written request for transfer of the source operating or construction permit shall include any changes pertaining to the facility name and mailing address; the name, mailing address, and telephone number of the owner or operator for the facility; and any proposed changes to the permitted activities of the source. Transfer of the operating or construction permits will be effective upon written approval by the Department.</p>

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

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

Permit Shield Exceptions	
SC Regulation 61-62.1 – Definitions and General Requirements	
SC Regulation 61-62.3 – Air Pollution Episodes	
SC Regulation 61-62.5, Std. No. 5.1 – LAER Applicable to VOCs	
S.C. Regulation 61.62.5 Standard No.6 - Alternative Emission Limitation Options	
SC Regulation 61-62.5, Standard 7 - Prevention of Significant Deterioration	

Permit Shield Exceptions
SC Regulation 61-62.5, Standard 7.1 - Nonattainment New Source Review
40 CFR 61, Subpart M - National Emission Standard for Asbestos
40 CFR 82 subpart A - Production and Consumption Controls
40 CFR 82 subpart B - Servicing of Motor Vehicle Air Conditioners
40 CFR 82 subpart C - Ban on Nonessential Products Containing Class I Substances and Ban on Nonessential Products Containing or Manufactured with Class II Substances
40 CFR 82 subpart D - Federal Procurement
40 CFR 82 subpart E - The Labeling of Products Using Ozone-Depleting Substances
40 CFR 82 subpart F - Recycling and Emissions Reduction
40 CFR 82 subpart G - Significant New Alternatives Policy Program
40 CFR 82 subpart H - Halon Emissions Reduction
40 CFR 82 subpart I - Ban on Refrigeration and Air-Conditioning Appliances Containing HCFCs
SC Reg 61-62.68 - Chemical Accident Prevention Provisions

H. AMBIENT AIR STANDARDS	
Condition Number	Conditions
H.1	<p>(S.C. Regulation 61-62.1, Section II(J)(2)) Air dispersion modeling (or other method) has previously demonstrated that this facility's operation will not interfere with the attainment and maintenance of any state or federal ambient air standard. Any changes in the parameters used in this demonstration may require a review by the facility to determine continuing compliance with these standards. These potential changes include any decrease in stack height, decrease in stack velocity, increase in stack diameter, decrease in stack exit temperature, increase in building height or building additions, increase in emission rates, decrease in distance between stack and property line, changes in vertical stack orientation, and installation of a rain cap that impedes vertical flow. Parameters that are not required in the determination will not invalidate the demonstration if they are modified. Variations from the input parameters in the demonstration shall not constitute a violation unless the maximum allowable ambient concentrations identified in the standard are exceeded.</p> <p>The owner or operator shall maintain this facility at or below the emission rates used in the most recent air dispersion modeling (or other method) demonstration submitted to and approved by the Department, not to exceed the pollutant limitations of this permit. Should the facility wish to increase the emission rates used in the demonstration, not to exceed the pollutant limitations in the body of this permit, it may do so by submitting a new demonstration for approval. This condition along with the referenced modeling demonstration will also serve to meet the intent of S.C. Regulation 61-62.5,</p>

H. AMBIENT AIR STANDARDS	
Condition Number	Conditions
	Standard No. 8, Section II(D). This is a State Only enforceable requirement.

I. COMPLIANCE SCHEDULE - RESERVED
