west virginia department of environmental protection

Division of Air Quality
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Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
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December 18, 2015

CERTIFIED MAIL
91 7199 9991 7035 6665 8929

James Brent Turley
11636 Huntington Road
Gallipolis Ferry, WV 25515

Re: ICL-IP America, Inc.
Gallipolis Ferry Plant
Permit No. R13-2438R
Plant ID No. 053-00007

Dear Mr. Turley:

Your application for a permit as required by Section 5 of 45CSR13 - "Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permit, General Permit, and Procedures for Evaluation" has been approved. The enclosed permit R13-2438R is hereby issued pursuant to Subsection 5.7 of 45CSR13. Please be aware of the notification requirements in the permit which pertain to commencement of construction, modification, or relocation activities; startup of operations; and suspension of operations.

The source is subject to 45CSR30. The permittee has the duty to update the facility's Title V (45CSR30) permit application to reflect the changes permitted herein.

In accordance with 45CSR30- Operating Permit Program, the permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §§22-5-14.

Should you have any questions or comments, please contact me at (304) 926-0499, extension 1257.

Sincerely,

John Legg
Permit Writer

Enclosures

c: Grant Morgan, Consultant, Environmental Resources Management

West Virginia Department of Environmental Protection
Division of Air Quality

Earl Ray Tomblin
Governor

Randy C. Huffman
Cabinet Secretary

Permit for Class II Administrative Update

R13-2438R

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45 C.S.R. 13 — Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the facility listed below is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:
ICL-IP
Gallipolis Ferry
053-00007

William F. Durham
Director

Issued: December 18, 2015

This permit will supercede and replace Permit R13-2438Q.

Facility Location:	Gallipolis Ferry, Mason County, West Virginia
Mailing Address:	PO Box 1721, Gallipolis Ferry, WV
Facility Description:	Specialty Chemical Manufacturing Facility
SIC Codes:	2899 – Chemicals and Allied Products – Chemical Preparations, NEC 2869 – Chemicals and Allied Products – Industrial Organic Chemicals, NEC
UTM Coordinates:	396.50 km Easting • 4,292.30 km Northing • Zone 17
Permit Type:	Class II Administrative Update
Description:	This update will replace an 1976 year, 190 hp emergency diesel firewater pump (Emission Unit ID No. P-434) with a 2015 year, 237 bhp (177 kW) diesel emergency firewater pump. The new 2015 emergency firewater pump is EPA compliant/certified to meet the requirements of 40 CFR 60 Subpart IIII. The manufacture and model number for the new diesel firewater pump are: John Deere Clarke, Model JU6H-UFAD88. The EPA Certificate Number is FJDXL06.8120-004.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

The source is subject to 45CSR30. Changes authorized by this permit must also be incorporated into the facility's Title V operating permit. Commencement of the operations authorized by this permit shall be determined by the appropriate timing limitations associated with Title V permit revisions per 45CSR30.

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APPENDIX A: ATTACHMENT A OF CONSENT ORDER CO-R27-96-29-A(92) A1

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
Production Unit I/IV					
Continuous Production					
R-40	n/a	Reactor	1988	1,500 gal	None
V-541	n/a	Reaction Completion	1979	13,500 gal	None
V-542	n/a	Reaction Completion	1979	2,835 gal	None
T-58	n/a	HCl Scrub Tower	1988	21 ft. packing	None
T-70	n/a	Distillation Tower	1993	15 ft. packing	None
V-354	n/a	Receiving Vessel	1974	60 gal	None
V-194	n/a	Receiving Vessel	1969	100 gal	None
OJ-15	C-J-15	Vacuum Jet	1960	1,378 #/hr steam 70 #/hr inerts 70 #/hr HCl	None
OJ-30	C-J-30	Vacuum Jet	1969	325 #/hr steam 20 #/hr inerts	None
V-166	C-166	Washer Feed	1958	<19,800 gal	None
V-633	C-633	Washer Feed	1985	<19,800 gal	None
V-275	n/a	Washer	1975	6,000 gal	T-50
V-276	n/a	Washer	1975	6,000 gal	T-50
V-277	n/a	Washer	1975	6,000 gal	T-50
V-278	n/a	Washer	1975	6,000 gal	T-50
V-451	n/a	Washer	1977	6,000 gal	T-50
V-452	n/a	Washer	1977	6,000 gal	T-50
V-82	C-82	Dryer Feed	1980	8.000 gal	None
V-599	C-599	Dryer Feed	1980	8.000 gal	None
V-671	C-671	Save All Vessel	1996	25,000 gal	None
OJ-11	C-J-11	Vacuum Jet	1995	300 #/hr water 24 #/hr air	None
OJ-20	C-J-20	Vacuum Jet	1995	300 #/hr water 24 #/hr air	None
V-90	C-90	Filter Feed Tank	1995	125 gal	None
T-50	C-T-50	Scrubber	NA	1 gpm: liquor flow rate	n/a
OP-23	n/a	Filter	1996	135 sq. ft.	None
HE-36	n/a	Dryer	1958	193 sq. ft.	None

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
T-62	C-T-68	HCl Absorber	1995	5 ft. packing	T-68
HE-349	n/a	HCl Absorber	2000	427 sq. ft.	None
V-706	C-T-68	HCl Storage	2000	25,000 gal	T-68
V-707	C-T-68	HCl Storage	2000	25,000 gal	T-68
T-68	C-T-68	HCl Scrubber	1995	5 ft. packing	T-68
Bis Phosphates[1]					
R-25	n/a	Reactor	2001	2,000 gal	None
V-724	n/a	Reaction Completion	1996	13,500 gal	None
V-631	n/a	Reaction Completion	1996	7,500 gal	None
R-44	n/a	Distillation Tower	1999	14 ft. packing	None
OJ-30	C-J-30	Vacuum Jet	1969	325 #/hr steam 20 #/hr inerts	None
OJ-15	C-J-15	Vacuum Jet	1960	1,378 #/hr steam 70 #/hr inerts 70 #/hr HCl	None
V-709	C-J-15/30	Receiver	1999	600 gal	None
V-273	C-273	BEPD Feed Tank	2012	12,500 gal	None
TX-1	OJ-15 or OJ-30	Distillation Tank	2012	N/A	None
R-46	n/a	Reactor	2001	2,000 gal	None
R-47	n/a	Reaction Completion	2001	2,000 gal	None
V-754	n/a	Reaction Completion	2001	13,500 gal	None
OJ-71	n/a	Vacuum Pump	2001	710 lb/hr HCl @ 2.1 psia	None
T-35	n/a	HCl Scrubber	2001	21 ft. packing	None
T-58	n/a	HCl Scrub Tower	1988	21 ft. packing	None
HE-349	n/a	HCl Absorber	2000	427 sq. ft.	None
T-62	C-T-68	HCl Absorber	1995	5 ft. packing	T-68
V-706	C-T-68	HCl Storage	2000	25,000 gal	T-68
V-707	C-T-68	HCl Storage	2000	25,000 gal	T-68
T-68	C-T-68	HCl Scrubber	1995	5 ft. packing	T-68
V-702	C-702	Washer Feed	2001	25,000 gal	None
V-217	C-T-50	Washer	2001	5,000 gal	T-50
V-218	C-T-50	Washer	2001	5,000 gal	T-50

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
V-71	C-T-50	Washer	n/a	5,000 gal	T-50
V-72	C-T-50	Washer	n/a	5,000 gal	T-50
V-276	C-T-50	Washer	1975	6,000 gal	T-50
V-277	C-T-50	Washer	1975	6,000 gal	T-50
V-237	C-T-50	Washer	1975	5,000 gal	T-50
V-238	C-T-50	Washer	1975	5,000 gal	T-50
V-725	C-725	Wet Product Storage	2001	13,000 gal	None
V-368	C-368	Save All Tank	2001	25,000 gal	None
T-13	n/a	Washer	2001	14 contact stages 26 ft. tall	None
HE-90	n/a	Dryer	1995	232 sq. ft.	None
V-88	C-88	Filter Feed Tank	2001	140 gal	None
OP-3	n/a	Filter	2007	135 sq. ft.	None
OJ-20	C-J-20	Vacuum Jet	1995	300 lbs/water 24 lbs/hr air	None
OJ-11	C-J-11	Vacuum Jet	1995	300 lbs/water 25 lbs/hr air	None
T-50	C-T-50	Scrubber	NA	1 gpm: liquor flow rate	n/a
V-675	C-675	Day Tank	1995	25,000 gal	None
V-676	C-676	Day Tank	1995	25,000 gal	None
Unit IV TBF/TBEP Production					
V-44	n/a	Reactor	1956	2,800 gal	None
V-37	C-37	NaOH	1992	6,000 gal	None
T-1	n/a	Drying Tower	1986	20 ft. packing	None
V-557	n/a	Buffer Tank	1980	5,000 gal	None
V-158	n/a	Seperator	1986	250 gal	None
V-175	n/a	K O Pot	1956	1,400 gal	None
V-56	C-56	K O Pot	1956	600 gal	None
OJ-29	H-J-29	Vacuum Jet	1972	20 lbs/hr air	None
OJ-32	H-J-32	Vacuum Jet	1977	20 lbs/hr air	None
R-36	n/a	Reactor	1988	500 gal	None
R-37	n/a	Reactor	1988	500 gal	None
R-38	n/a	Reactor	1988	500 gal	None

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
R-34	n/a	Reactor	1980	2,000 gal	None
T-77	n/a	HCl Absorber	2002	6 ft. packing	None
V-715	n/a	HCl Storage	1991	750 gal	None
V-716	n/a	HCl Storage	1991	2,400 gal	None
V-717	n/a	HCl Storage	1991	2,400 gal	None
V-237	C-T-50	Washer	1966	5,000 gal	T-50
V-238	C-T-50	Washer	1966	5,000 gal	T-50
V-670	C-670	Save All Tank	1992	25,000 gal	None
V-80	C-80	Dryer Feed	1980	8,000 gal	None
V-84	C-84	Dryer Feed	1980	8,000 gal	None
HE-338	n/a	Dryer	1988	193 sq. ft.	None
OJ-57	C-J-57	Vacuum Jet	1995	300 lbs/water 25 lbs/hr air	None
V-89	C-89	Filter Feed	1995	125 gal	None
OP-58	n/a	Filter	1966	135 sq. ft.	None
OP-187	n/a	Filter	1987	6 sq. ft.	None
T-50	C-T-50	Scrubber	NA	1 gpm: liquor flow rate	T-50
V-183	C-183	Day Tank	1960	6,000 gal	None
V-184	C-184	Day Tank	1960	6,000 gal	None
V-185	C-185	Day Tank	1960	6,000 gal	None
V-560	C-560	Day Tank	1980	10,000 gal	None
V-561	C-561	Day Tank	1980	10,000 gal	None
V-634	C-634	Day Tank	1985	16,900 gal	None
OJ-36	C-J-36	Vacuum Jet	1987	40 lbs/water 20 lbs/hr air	None
R-39	n/a	Reactor	1988	500 gal	None
V-306	H-306	Distillation Feed	1969	1,270 gal	None
V-307	n/a	Distillation Feed	1969	1,270 gal	None
T-52	n/a	Distillation Tower	1985	10 ft. packing	None
T-19	n/a	Distillation Tower	1991	6 ft. packing	None
V-298	n/a	O. H. Receiver	1977	100 gal	None
V-619	n/a	O. H. Receiver	1983	300 gal	None

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
V-305	n/a	Buffer Tank	1970	2,000 gal	None
V-302	H-302	Washer	1997	470 gal	None
V-303	H-303	Washer	1997	470 gal	None
V-519	H-519	Washer	1983	470 gal	None
V-520	H-520	Washer	1983	470 gal	None
V-287	H-287	Separator	1983	420 gal	None
V-116	H-116	Washer Feed	1957	1,700 gal	None
V-119	H-119	Washer Feed	1957	1,700 gal	None
V-107	H-107	Save All Tank	1981	9,000 gal	None
V-229	C-229	Tank	1965	10,000 gal	None
V-230	C-230	Tank	1965	10,000 gal	None
Naturals Production					
R-43/ V-43	n/a	Reactor System/ Reaction Completion	2002	1,500 gal	None
R-42/ V-42	n/a	Reactor System/ Reaction Completion	2002	2,800 gal	None
V-724	n/a	Reaction Completion	1996	13,500 gal	None
HE-340	n/a	Distillation Tower	2007	231 sq. ft.	None
V-714	n/a	Receiving Vessel	2002	1,000 gal	None
OJ-30	C-J-30	Vacuum Jet	1969	325 #/hr steam 20 #/hr inerts	None
OJ-15	C-J-15	Vacuum Jet	1960	1,378 #/hr steam 70 #/hr inerts 70 #/hr HCl	None
V-57	C-57	Washer Feed	2002	7,500 gal	None
V-276	C-T-50	Washer	1975	6,000 gal	None
V-277	C-T-50	Washer	1975	6,000 gal	None
V-63	C-63	Dryer Feed	2002	12,000 gal	None
V-568	C-568	Save All Tank	1980	25,000 gal	None
OJ-69	C-J-69	Vacuum Jet	1995	40 lbs/water 20 lbs/hr air	None
V-571	C-571	Filter Feed Tank	1998	4,000 gal	None
OP-56	n/a	Filter	1998	135 sq. ft.	None

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
V-106	n/a	Dryer	2002	2,300 gal	None
T-50	C-T-50	Scrubber	NA	1 gpm: liquor flow rate	n/a
T-35	n/a	HCl Scrub Tower	2001	21 ft. packing	None
T-58	n/a	HCl Scrub Tower	1988	21 ft. packing	None
T-62	C-T-68	HCl Absorber	1995	5 ft. packing	T-68
HE-349	n/a	HCl Absorber	2000	427 sq. ft.	None
V-706	C-T-68	HCl Storage	2000	25,000 gal	T-68
V-707	C-T-68	HCl Storage	2000	25,000 gal	T-68
T-68	C-T-68	HCl Scrubber	1995	5 ft. packing	T-68
Group 2 Production					
R-28	C-T-50	Reactor	n/a	n/a	T-50
V-564	C-T-50	Pre-Wash Tank	2000	<19,800 gal	T-50
V-565	C-T-50	Wash Tank	n/a	n/a	T-50
V-566	C-T-50	Wash Tank	n/a	n/a	T-50
V-83	C-83	Dehydrator Feed Tank	1956	<19,800 gal	None
V-577	C-577	Dehydrator Feed Tank	1980	<19,800 gal	None
HE-280	C-J-53	Dehydrator	2001	<19,800 gal	None
OJ-53	C-J-53	Vacuum Jet	1998	300 #/hr water vapor 25 #/hr inerts 1,068 #/hr steam	None
V-365	C-365	Save All Tank	1974	<39,000 gal	None
R-20	C-T-50	Reactor	n/a	n/a	T-50
V-570	C-T-50	Pre-Wash Tank	n/a	n/a	T-50
V-71	C-T-50	Wash Tank	n/a	n/a	T-50
V-72	C-T-50	Wash Tank	n/a	n/a	T-50
V-81	C-81	Dehydrator Feed Tank	1956	<19,800 gal	None
V-94	C-94	Dehydrator Feed Tank	1956	<19,800 gal	None
V-569	C-569	Filter Feed Tank	1996	500 gal	None
V-174	C-174	Filter Feed Tank	1988	500 gal	None
HE-037	C-J-12	Dehydrator	1955	<19,800 gal	None

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
OJ-12	C-J-12	Vacuum Jet	1998	300 #/hr water vapor 25 #/hr inerts 1,068 #/hr steam	None
V-567	C-567	Save All Tank	1980	<39,900 gal	None
C-R-50	C-T-50	Digestor	2004	25 gpm, 500 gal	T-50
V-100	C-100	Check/Day Tank	1955	<19,800 gal	None
V-101	C-101	Check/Day Tank	1955	<19,800 gal	None
V-215	C-215	Check/Day Tank	~1963	<19,800 gal	None
V-216	C-216	Check/Day Tank	~1963	<19,800 gal	None
T-50	C-T-50	Scrubber	NA	1 gpm: liquor flow rate	n/a
V-200 Production					
V-200	n/a	Reactor	Pre 1980	22,000 gal	None
T-45	C-T-45	Scrub Tower	1997	10 ft. packing	T-45
V-344	n/a	Knock Out	1974	1,500 gal	None
V-4	n/a	Tank	1985	50,000 gal	None
V-5	n/a	Tank	1985	50,000 gal	None
Tri Aryl Production[1]					
V-91	C-91	Tank	1980	8,000 gal	None
V-92	C-92	Tank	1980	8,000 gal	None
V-93	C-93	Tank	1980	8,000 gal	None
V-97	C-97	Tank	1980	15,000 gal	None
V-98	C-98	Tank	1980	15,000 gal	None
V-212	C-212	Tank	1980	15,000 gal	None
V-562	C-562	Tank	1980	10,000 gal	None
V-563	C-563	Tank	1980	10,000 gal	None
V-574	C-574	Tank	1980	10,000 gal	None
V-575	C-575	Tank	1980	10,000 gal	None
V-576	C-576	Tank	1980	8,000 gal	None
V-668	C-668	Tank	1988	25,000 gal	None
V-669	C-669	Tank	1988	25,000 gal	None
Unit I Logistics					
V-37	C-37	Tank	1987	6,000 gal	n/a

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
V-558	C-558	Tank	2007	10,000 gal	n/a
V-559	C-559	Tank	2007	10,000 gal	n/a
Production Unit II					
EAP System					
R-15	n/a	Reactor	1970	1,000 gal	None
OJ-39	R-J-39	Vacuum Jet	1973	290 #/hr steam 20 #/hr inerts	None
BAP System					
R-15	n/a	Reactor	1970	1,000 gal	None
OJ-39	R-J-39	Vacuum Jet	1973	290 #/hr steam 20 #/hr inerts	None
Dioctyl Acid Pyrophosphate System					
R-13	n/a	Reactor	1968	2,000 gal	None
OJ-39	R-J-39	Vacuum Jet	1973	290 #/hr steam 20 #/hr inerts	None
BPA System					
V-692	n/a	Feed Tank	1989	1,000 gal	T-61
T-60	R-T-60	Scrubber	1995	7 ft. packing	T-60
T-61	n/a	Scrubber	1995	7 ft. packing	T-60
R-26	n/a	Reactor/Crystallizer	1975	2,000 gal	T-61
R-27	n/a	Reactor/Crystallizer	1998	2,000 gal	T-61
OJ-40	R-J-40	Vacuum Jet	1974	25 lbs/air 20 lbs/hr water	None
D-5	n/a	Decanter/Drier	1975	225 cu. ft.	None
Unit II BPOD					
R-9	n/a	Reactor	1987	2,000 gal	T-55
T-55	n/a	Scrubber	1992	6 ft. packing	T-55
T-60	R-T-60	Scrubber	1994	8 ft. packing	T-60
V-250	n/a	Tank	1967/1979	7,500 gal	T-60
V-251	n/a	Tank	1967	7,500 gal	T-60
OJ-25	R-J-25	Vacuum Jet	Pre 1980	25 lbs/air 20 lbs/hr water	None
Unit II Fyrol 6					
V-263	n/a	Tank	1968	6,000 gal	T-60

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
R-23	n/a	Reactor	1974	2,800 gal	None
V-75	R-75	Tank	1979	1,800 gal	None
V-316	R-316	Receiver Tank	1975	500 gal	None
OJ-56	R-J-56	Vacuum Jet	1985	20 lbs/hr air	None
V-375	R-375	Tank	1974	12,500 gal	None
V-377	R-377	Tank	1974	12,500 gal	None
Unit II Fyrol 99					
R-12	n/a	Reactor	1968	2,000 gal	None
R-13	n/a	Reactor	1968	2,000 gal	None
R-35	n/a	Reactor System	1980	2,000 gal	None
OJ-38	R-J-38	Vacuum Jet	1973/1987	290 #/hr steam 20 #/hr inerts	None
OJ-39	R-J-39	Vacuum Jet	1973/1987	290 #/hr steam 20 #/hr inerts	None
V-260	R-260	Tank	1967	12,000 gal	None
V-262	R-262	Reactor Dump Tank	1968	6,000 gal	None
R-9					
R-9	n/a	Reactor	1987	2,000 gal	T-55
V-333	R-333	Save All Tank	1973	12,500 gal	None
R-33	R-R-33	Washer	1979	4,000 gal	None
V-323	R-323	Separator	1971	2,000 gal	None
V-324	R-324	Separator	1971	2,000 gal	None
T-55	n/a	Scrubber	1992	6 ft. packing	T-55
V-621	n/a	Dryer	1984	5,000 gal	None
OP-89	n/a	Filter	1991	76 sq. ft.	None
OJ-52	R-J-52	Vacuum Jet	1985	20 #/hr air	None
OJ-56	R-J-56	Vacuum Jet	1985	20 #/hr air	None
OJ-25	R-J-25	Vacuum Jet	Pre 1980	25 #/hr water 25 #/hr air	None
V-334	R-334	Tank	1973	12,500 gal	None
V-335	R-335	Tank	1973	12,500 gal	None
V-372	R-372	Tank	1973	12,500 gal	None

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
V-374	R-374	Tank	1975	12,500 gal	None
V-376	R-376	Tank	1975	12,500 gal	None
V-548	R-548	Tank	1975	12,500 gal	None
V-359	n/a	Tank	1979	10,000 gal	T-60
V-687	n/a	Tank	1974	6,000 gal	T-60
V-690	n/a	Tank	1989	2,500 gal	T-60
Victawet 12					
R-12	n/a	Completion Reactor	1968	2,000 gal	None
R-13	n/a	Completion Reactor	1968	2,000 gal	None
OJ-38	R-J-38	Vacuum Jet	1973/1987	290 #/hr steam 20 #/hr inerts	None
OJ-39	R-J-39	Vacuum Jet	1973/1987	290 #/hr steam 20 #/hr inerts	None
SBP System					
R-11	R-R-11	Reactor	1967	1,000 gal	None
V-256	R-256	Tank	1984	1,000 gal	None
OM-251	R-M-251	Tank	1986	100 cu. ft.	None
EO Scrubber					
V-746	n/a	Completion Reactor	1994	11,000 gal	T-76
V-747	n/a	Completion Reactor	1994	2,600 gal	T-76
V-40	n/a	Tank	1994	6,000 gal	T-76
T-74	n/a	Scrubber	1994	24 ft. packing	T-76
T-75	n/a	Scrubber	1994	24 ft. packing	T-76
T-76	R-T-76	Scrubber	1994	6 ft. packing	T-76
Unit II Logistics					
V-263	n/a	Tank	1968	6,000 gal	T-60
V-373	R-373	Tank	1974	12,500 gal	None
V-375	R-375	Tank	1974	12,500 gal	None
V-377	R-377	Tank	1974	12,500 gal	None
V-261	R-261	Tank	1968	6,000 gal	None

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
V-259	R-259	Tank	1967	12,000 gal	None
V-666	B-666	Tank	1987	50,000 gal	None
V-260	R-260	Tank	1967	12,000 gal	None
V-334	R-334	Tank	1973	12,500 gal	None
V-335	R-335	Tank	1973	12,500 gal	None
V-372	R-372	Tank	1975	12,500 gal	None
V-374	R-374	Tank	1975	12,500 gal	None
V-376	R-376	Tank	1975	12,500 gal	None
V-548	R-548	Tank	1979	12,500 gal	None
V-629	R-629	Tank	1987	12,000 gal	None
Production Unit III					
POCI3					
R-31	n/a	Reactor	1975	2,900 gal	None
V-406	n/a	Stripper	1975	280 gal	None
V-407	n/a	Stripper	1975	30 gal	None
T-22	n/a	Distillation Tower	1975	30 ft. packing	None
V-408	n/a	Tank Receiver	1975	82 gal	None
T-40	M-T-41	Scrub Tower	2008	15 ft. packing	T-41
T-41	M-T-41	Scrub Tower	1979	15 ft. packing	T-41
T-24	n/a	Scrub Tower	1975	12 ft. packing	None
T-23	n/a	Scrub Tower	1975	18 ft. packing	None
V-410	n/a	Day Tank	1975	3,000 gal	None
V-411	n/a	Day Tank	1975	3,000 gal	None
V-412	n/a	Day Tank	1975	3,000 gal	None
V-352	n/a	Storage Tank	1975	24,000 gal	None
V-363	n/a	Storage Tank	1975	24,000 gal	None
V-413	n/a	Storage Tank	1975	24,000 gal	None
V-442	n/a	Storage Tank	1986	24,000 gal	None
PCI3					
R-41	n/a	Reactor	1988	4,000 gal	None
V-391	n/a	P4 Tank	1975	25,380 gal	None
V-393	n/a	Water Tank	2008	76,530 gal	None

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
T-20A	n/a	Distillation Tower	2001	23 ft. packing	None
T-20B	n/a	Distillation Tower	2007	23 ft. packing	None
T-40	M-T-41	Scrub Tower	2008	15 ft. packing	T-41
T-41	M-T-41	Scrub Tower	1979	15 ft. packing	T-41
T-24	n/a	Scrub Tower	1975	12 ft. packing	None
T-23	n/a	Scrub Tower	1975	18 ft. packing	None
V-401	n/a	Tank	1975	365 gal	None
V-402	n/a	Tank	1975	3,600 gal	None
V-403	n/a	Tank	2007	3,600 gal	None
V-404	n/a	Tank	1975	3,600 gal	None
V-405	n/a	Tank	1975	33, 840 gal	None
Unit III Logistics					
V-386	n/a	Tank	1976	30,000 gal	None
V-387	n/a	Tank	1976	30,000 gal	None
V-388	n/a	Tank	1976	30,000 gal	None
V-389	n/a	Tank	1976	30,000 gal	None
V-402	n/a	Tank	1975	3,600 gal	None
V-403	n/a	Tank	2007	3,600 gal	None
V-404	n/a	Tank	1975	3,600 gal	None
V-405	n/a	Tank	1975	33,840 gal	None
V-410	n/a	Day Tank	1975	3,000 gal	None
V-411	n/a	Day Tank	1975	3,000 gal	None
V-412	n/a	Day Tank	1975	3,000 gal	None
V-352	n/a	Storage Tank	1975	24,000 gal	None
V-363	n/a	Storage Tank	1975	24,000 gal	None
V-413	n/a	Storage Tank	1975	24,000 gal	None
V-442	n/a	Storage Tank	1986	24,000 gal	None
Distribution					
Distribution					
V-590	T-590	Tank	1980	22,000 gal	None
V-591	T-591	Tank	1980	22,000 gal	None

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
V-592	T-592	Tank	1980	22,000 gal	None
V-31	T-31	Tank	1978	10,000 gal	None
V-170	B-170	Tank	1982	50,000 gal	None
V-610	B-610	Tank	1982	57,000 gal	None
V-578	B-578	Tank	1982	7,900 gal	None
V-658	P-658	Tank	1986	50,000 gal	None
V-531	B-J-55	Tank	1994	50,000 gal	None
V-532	B-J-55	Tank	1994	50,000 gal	None
V-533	B-J-55	Tank	1994	50,000 gal	None
V-534	B-J-55	Tank	1994	50,000 gal	None
V-358	B-J-55	Tank	2002	10,000 gal	None
V-13	B-J-55	Tank	1994	50,000 gal	None
V-211	B-211	Tank	1962	25,000 gal	None
V-1	B-1	Tank	1994	50,000 gal	None
V-2	B-2	Tank	1994	50,000 gal	None
V-3	B-3	Tank	1994	50,000 gal	None
V-9	B-9	Tank	1994	50,000 gal	None
V-232	B-232	Tank	1966	15,000 gal	None
V-308	B-308	Tank	1970	15,000 gal	None
V-340	B-340	Tank	1973	100,000 gal	None
V-341	B-341	Tank	1973	100,000 gal	None
V-234	B-234	Tank	1966	15,000 gal	None
V-6	B-6	Tank	1956	50,000 gal	None
V-180	B-180	Tank	1959	100,000 gal	None
V-23	B-23	Tank	1956	15,000 gal	None
V-20	B-20	Tank	1955	50,000 gal	None
V-15	B-15	Tank	1955	100,000 gal	None
V-16	B-16	Tank	1955	100,000 gal	None
V-17	B-17	Tank	1955	50,000 gal	None
V-18	B-18	Tank	1955	50,000 gal	None
V-19	B-19	Tank	1955	50,000 gal	None

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
V-700	B-700	Tank	1990	50,000 gal	None
V-517	T-517	Tank	1977	230,000 gal	None
V-643	B-643	Tank	2006	100,000 gal	None
V-539	B-539	Tank	2007	100,000 gal	None
V-605	B-605	Tank	1981	50,000 gal	None
V-171	B-171	Tank	1959	50,000 gal	None
V-735	B-735	Tank	1994	50,000 gal	None
V-12	B-12	Tank	1955	10,000 gal	None
V-21	B-21	Tank	1955	50,000 gal	None
V-24	B-24	Tank	1955	15,000 gal	None
V-176	B-176	Tank	1959	12,000 gal	None
V-279	B-279	Tank	1994	15,000 gal	None
V-280	B-280	Tank	1968	15,000 gal	None
V-104	B-104	Tank	1955	15,000 gal	None
V-105	B-105	Tank	1955	15,000 gal	None
V-233	B-233	Tank	1973	12,500 gal	None
V-7	B-7	Tank	1955	50,000 gal	None
V-231	B-231	Tank	1994	100,000 gal	None
V-210	B-210	Tank	1961	50,000 gal	None
V-208	B-208	Tank	1961	50,000 gal	None
V-172	B-172	Tank	1959	50,000 gal	None
V-290	B-290	Tank	1969	100,000 gal	None
V-291	B-291	Tank	1969	100,000 gal	None
V-339	B-339	Tank	1973	100,000 gal	None
V-209	B-209	Tank	1961	50,000 gal	None
V-213	B-213	Tank	1959	50,000 gal	None
V-236	B-236	Tank	1969	50,000 gal	None
V-342	B-342	Tank	1973	50,000 gal	None
V-594	B-594	Tank	1980	100,000 gal	None
V-595	B-595	Tank	1980	100,000 gal	None
V-516	T-516	Tank	1977	230,000 gal	None

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
V-518	T-518	Tank	1977	230,000 gal	None
V-666	B-666	Tank	1987	50,000 gal	None
V-30	H-30	Tank	1983	8,000 gal	None
Loading					
TR-East	n/a	Main Truck Rack East	1983	44,100 gal/day	None
TR-West	n/a	Main Truck Rack West	1983	44,100 gal/day	None
TT-2	n/a	Tank Truck Spot 2	1979	11,000 gal/day	None
TT-3	n/a	Tank Truck Spot 3	1960	5,500 gal/day	None
TT-4	n/a	Tank Truck Spot 4	1960	5,500 gal/day	None
TT-5	n/a	Tank Truck Spot 5	1960	5,500 gal/day	None
TT-8	n/a	Tank Truck Spot 8	1974	11,000 gal/day	None
TT-9	n/a	Tank Truck Spot 9	1974	7,200 gal/day	None
TT-16	n/a	Tank Truck Spot 16	2000	15,400 gal/day	None
TT-17	n/a	Tank Truck Spot 17	1995	22,000 gal/day	None
DT-East	n/a	Drum/Tote Filling East	1996	44,000 gal/day	None
DT-West	n/a	Drum/Tote Filling West	1996	44,000 gal/day	None
DT-Center	n/a	Drum/Tote Filling Center	1996	44,000 gal/day	None
DF-I	n/a	Unit I Drumming	1990	44,000 gal/day	None
DF-II	n/a	Unit II Drumming	1991	44,000 gal/day	None
RC-1	n/a	Rail Car Spot 1	1960	22,000 gal/day	None
RC-2	n/a	Rail Car Spot 2	1960	22,000 gal/day	None
RC-3	n/a	Rail Car Spot 3	1960	22,000 gal/day	None
RC-4	n/a	Rail Car Spot 4	1960	22,000 gal/day	None
RC-5	n/a	Rail Car Spot 5	1960	22,000 gal/day	None
RC-6	n/a	Rail Car Spot 6	1960	22,000 gal/day	None
RC-7	n/a	Rail Car Spot 7	1960	22,000 gal/day	None
TC 3-9	n/a	Tank Car Spot 3-9	1975	22,000 gal/day	None
TC 3-11	n/a	Tank Car Spot 3-11	1975	15,500 gal/day	None
TC 5-9	n/a	Tank Car Spot 5-9	1975	15,500 gal/day	None
TC 5-11	n/a	Tank Car Spot 5-11	1975	15,500 gal/day	None
Other Logistics					

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
Utilities Logistics					
V-294	H-294	Tank	1968	16,000 gal	None
Blending					
R-22	R-R-22	Reactor	1972	2,000 gal	None
R-23	R-R-23	Reactor	1978	4,000 gal	None
R-33	R-R-33	Reactor	1983	4,000 gal	None
R-11	R-R-11	Reactor	1967	1,000 gal	None
R-12	R-R-12	Reactor	1967	2,000 gal	None
R-13	R-R-13	Reactor	1967	2,000 gal	None
R-15	R-R-15	Reactor	1967	1,000 gal	None
Totes	K-T	Totes	1967	275 gal	None
Drums	K-DR	Drums	1996	55 gal	None
V-346	B-346	Mix Tank	1974	5,000 gal	None
V-345	B-345	Mix Tank	1974	5,000 gal	None
V-613	B-613	Mix Tank	1982	5,000 gal	None
V-343	B-343	Mix Tank	1974	5,000 gal	None
V-168	B-168	Mix Tank	1974	5,000 gal	None
Oil Systems					
V-744	H-744	Expansion Tank	1996	6,000 gal	None
V-748	H-748	Expansion Tank	1996	6,000 gal	None
V-749	H-749	Expansion Tank	1996	6,000 gal	None
V-159	C-159	Expansion Tank	Pre 1980	100 gal	None
V-160	C-160	Expansion Tank	Pre 1980	100 gal	None
V-114	R-114	Expansion Tank	1989	1,720 gal	None
V-753	C-753	Expansion Tank	1995	100 gal	None
R-28	n/a	Reactor Jacket	1975	300 gal	None
R-20	n/a	Reactor Jacket	1968	300 gal	None
R-25	n/a	Reactor Jacket	1981	300 gal	None
R-9	n/a	Reactor Jacket	1986	300 gal	None
Wastewater Treatment					

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
WWTU	P-662 (Various Fugitive)	Wastewater Treatment Unit	1987	600 gpm	Chemical Digester
Combustion Sources					
C-120	H-C-120	Air Compressor	1987	128 hp	None
C-209	E-C-209	Diesel Engine	1996	78 hp	None
OM-183	D-O-183	Diesel Engine	1978	375 hp	None
OM-184	D-O-184	Diesel Engine	1978	375 hp	None
OM-231	H-O-231	Diesel Engine	1988	368.8 hp	None
OM-296	P-O-296	Diesel Engine	1988	368.8 hp	None
P-434	H-P-434	Diesel Engine Emergency Firewater Pump	2015	237 hp	None
B-6	H-B-6	Boiler	1977	93.7 mmBtu/hr	None
B-5A	H-B-5A	Boiler	1998	122 mmBtu/hr	None
F-5	C-F-5	Heater	1960	8.2 mmBtu/hr	None
F-6	C-F-6	Heater	1969	6.4 mmBtu/hr	None
F-7	C-F-7	Heater	1976	0.75 mmBtu/hr	None
F-8	C-F-8	Heater	1976	0.75 mmBtu/hr	None

(1) Continuous and Naturals Sub-Units are part of the Tri Aryl Production and Bis Phosphate Units. The tanks listed under the Tri Aryl Production and Bis Phosphate Units are common to both the Continuous and Naturals Sub-Units.

(2) This Emission Unit is the same Emission Unit listed in the Bis Phosphates Unit.

2.0. General Conditions

2.1. Definitions

2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.

2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.

2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45 CSR § 30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments
CBI	Confidential Business Information
CEM	Continuous Emission Monitor
CES	Certified Emission Statement
C.F.R. *or* CFR	Code of Federal Regulations
CO	Carbon Monoxide
C.S.R. *or* CSR	Codes of State Rules
DAQ	Division of Air Quality
DEP	Department of Environmental Protection
dscm	Dry Standard Cubic Meter
FOIA	Freedom of Information Act
HAP	Hazardous Air Pollutant
HON	Hazardous Organic NESHAP
HP	Horsepower
lbs/hr	Pounds per Hour
LDAR	Leak Detection and Repair
M	Thousand
MACT	Maximum Achievable Control Technology
MDHI	Maximum Design Heat Input
MM	Million
MMBtu/hr *or* mmbtu/hr	Million British Thermal Units per Hour
MMCF/hr *or* mmcf/hr	Million Cubic Feet per Hour
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAPS	National Emissions Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
$PM_{2.5}$	Particulate Matter less than 2.5μm in diameter
PM_{10}	Particulate Matter less than 10μm in diameter
Ppb	Pounds per Batch
pph	Pounds per Hour
ppm	Parts per Million
Ppmv or ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration
psi	Pounds per Square Inch
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TAP	Toxic Air Pollutant
TPY	Tons per Year
TRS	Total Reduced Sulfur
TSP	Total Suspended Particulate
USEPA	United States Environmental Protection Agency
UTM	Universal Transverse Mercator
VEE	Visual Emissions Evaluation
VOC	Volatile Organic Compounds
VOL	Volatile Organic Liquids

2.3. Authority

This permit is issued in accordance with West Virginia Air Pollution Control Law W.Va. Code §§22-5-1 et seq. and the following Legislative Rules promulgated thereunder:

2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits and Procedures for Evaluation*

2.4. Term and Renewal

2.4.1. This permit supercedes and replaces previously issued Permit R13-2438Q. This permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any applicable legislative rule.

2.5. Duty to Comply

2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-2438 through R13-2438R and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to; **[45CSR§§13-5.11 and 13-10.3]**

2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;

2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;

2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses and/or approvals from other agencies; i.e., local, state and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

2.7. Duty to Supplement and Correct Information

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-4]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-5.4.]

2.10. Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
[45CSR§13-5.1]

2.11. Inspection and Entry

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

2.12. Emergency

2.12.1. An "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 are not met.

2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

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

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

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

d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

2.12.5. The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

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

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. **[45CSR§13-10.1]**

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]

3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]

3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40CFR§61.145(b) and 45CSR§34]

3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only.]

3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]

3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45 C.S.R. 11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements

[Reserved]

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.

b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4 or 45CSR§13-5.4 as applicable.

c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

d. The permittee shall submit a report of the results of the stack test within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1.; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

1. The permit or rule evaluated, with the citation number and language;
2. The result of the test for each permit or rule condition; and,
3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§4. *State-Enforceable only.*]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304-2345

If to the USEPA:

Associate Director
Office of Air Enforcement and Compliance
Assistance (3AP20)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

3.5.4. **Operating Fee.**

3.5.4.1. In accordance with 45CSR30 – Operating Permit Program, the permittee shall submit a Certified Emissions Statement (CES) and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. The equipment identified under Section 1.0 of this permit shall, where applicable, not exceed the listed design capacity and be installed, maintained, and operated so as to minimize any fugitive escape of pollutants.

4.1.2. Emissions from the equipment identified in Section 1.0 shall be routed to and controlled by those control devices identified in Section 1.0 prior to venting emissions to the atmosphere. In the event that the control equipment becomes inoperable while production equipment is in operation, the production unit shall be shut down as expeditiously as possible. Recognizing the potentially reactive nature of the production units products, however, in-process material may continue to be processed. The permittee shall not begin operation of the production unit when the control equipment is not in operation without being granted a variance by the Director.

4.1.3. The permittee shall abide by all provisions under Attachment A of Consent Order CO-R27-96-29-A(92), provided that the permittee meet any more stringent limitations set forth in this permit.

4.1.4. The permittee shall be limited to the use of materials that have the potential to emit only those Hazardous Air Pollutants (HAPs) as limited under Section 4.0 of this permit. Any use of a material(s) with a potential to emit, in excess of 5 pounds per year, of an additional HAP that is not limited under Section 4.0 of the permit is prohibited unless first granted prior approval by the Director.

4.1.5. The use of any material that has the potential to emit a Toxic Air Pollutant (TAP) as defined under 45CSR27 and not limited under Section 4.0 of this permit is prohibited unless first granted prior approval by the Director.

4.1.6 Each scrubber identified in the following table shall operate with a minimum input liquor flow rate as specified and shall achieve, at a minimum, the specified control efficiencies.

Table 4.1.6.: Scrubber Operating Parameters

Scrubber ID	Minimum Liquor Flow Rate (gal/min)	Pollutant	Control Efficiency
T-41	13	HCl	99.9%
T-45	1	VOCs/Phenol	98.6%
T-50	1	VOCs/VOC-HAPs	99.0%
T-55	10	HCl	99.9%
T-60	10	HCl	99.9%
T-61	1	HCl	99.2%
T-68	1	HCl	99.8%
T-74(1)	6	n/a	n/a
T-75(1)	6	n/a	n/a
T-76	6	VOCs/Ethylene Oxide	99.7%

(1) T-74 vents to T-75 and T-75 vents to T-76.

4.1.7. With the exception of Boilers B-5 and B-6A and the sources listed under Table 4.1.18.2, the emission points of particulate matter limited at the facility are subject to the applicable limitations and standards under 45CSR7, as given below under (a) through (c).

a. The permittee shall not cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from the emission points specified above, which is greater than twenty (20) percent opacity, except as noted under 4.1.7.b.
[45CSR§7-3.1]

b. The provisions of subsection 4.1.7.a shall not apply to smoke and/or particulate matter emitted from the emission points specified above which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.
[45CSR§7-3.2]

c. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of this rule.
[45CSR§7-4.1]

4.1.8. Hydrochloric acid (HCl) shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity given in Table 45-7B found at the end of this rule.
[45CSR§7-4.2]

4.1.9. The permittee shall implement a Leak Detection and Repair (LDAR) Program according to all applicable requirements of 40 CFR 63, Subpart H. For the purposes of this permit, all manufacturing processes subject to LDAR requirements due to 45CSR§27 have previously been deemed to be Group 1 sources under the above referenced Subpart H. The permittee shall implement and comply with LDAR equipment standards required under Phase III of Subpart H. The Director hereby determines that compliance with Subpart H to constitute BAT. All notices and reports required to be submitted to the United States Environmental Protection Agency ("USEPA") under Subpart H shall be submitted to the Director (and the USEPA Administrator, if appropriate) in accordance with the requirements of Subpart H and of this permit.

4.1.10. In order to maintain non-applicability to 40 CFR 63, Subpart PPP, the permittee shall not operate a unit defined as a polyether polyol manufacturing process unit (PMPU) as defined under Subpart PPP.

4.1.11. <u>Production Unit I/IV Limitations and Standards</u>

4.1.11.1 Maximum annual aggregate emissions from all "Production Unit I/IV" emission points identified under Section 1.0 of this permit shall not exceed the following:

Table 4.1.11.1: Production Unit I/IV Annual Aggregate Emission Limits

Pollutant	tons/year
PM	0.23
VOCs	34.00
Propylene Oxide	3.01
Ethylene Oxide	1.67
Formaldehyde	0.13
Acetaldehyde	0.41
Propylene Dichloride	5.94
Ethylene Dichloride	1.97

Epichlorohydrin	2.05
HCl	0.23
Phenol	2.59
Total HAPs	18.00

4.1.11.2 In each subunit of "Production Unit I/IV" listed in the following table, the production of materials is limited to those specified, and production of those materials shall not, in the aggregate (where multiple products are listed with one limit), exceed the maximum permitted production limit as given:

Table 4.1.11.2.: Production Unit I/IV Subunit Material Limitations

Subunit	Material	Maximum Permitted Production
Continuous	- Triphenyl Phosphate - Tiertary butyl phenyl phosphate 130 vis - Tiertary butyl phenyl phosphate 150 vis - Tiertary butyl phenyl phosphate 220 vis - Tiertary butyl phenyl phosphate 300 vis - Tiertary butyl phenyl phosphate 550 vis - Para Tertiary butyl phenyl phosphate 220 vis - Ortho Tertiary butyl phenyl phosphate 220 vis - Isopropyl phenyl phosphate 31L - Isopropyl phenyl phosphate 41L - Tricesyl Phosphate - Trixylenol Phosphate	150,000 lbs/day
Bis Phosphates[1]	- Bisphenol A Bis Diphenyl Phosphate (Fyrolflex BDP)	122,400 lbs/day
	or	or
	- Resorcinol Bis Diphenyl Phosphate	102,600 lbs/day
	- Para Tertiary butyl phenyl phosphate 220 vis	114,500 lbs/day
	- Ortho Tertiary butyl phosphate 220 vis	158,244 lbs/day
	- E08-16T (1,3,2-dioxaphosphorinane, 5-butyl-5ethyl-2-phenoxy-, 2-oxide)	153,187 lbs/day
Unit IV TBF/TBEP[1]	- Tributoxyethyl Phosphate - Tributyl Phosphate	99,900 lbs/day
	or	or
	- Phosflex 362 - Phosflex 390 - Phosflex 418	142,128 lbs/day
	or	or
	-Butyl Diphenyl Phosphate (DBPP)	126,768 lbs/day

Subunit	Material	Maximum Permitted Production
Naturals	- Triphenyl Phosphate - Tiertary butyl phenyl phosphate 130 vis - Tiertary butyl phenyl phosphate 150 vis - Tiertary butyl phenyl phosphate 220 vis - Tiertary butyl phenyl phosphate 300 vis - Tiertary butyl phenyl phosphate 550 vis - Para Tertiary butyl phenyl phosphate 220 vis - Isopropyl phenyl phosphate 31L - Isopropyl phenyl phosphate 41L - Tricesyl Phosphate - Trixylenol Phosphate	60,600 lbs/day
Group 2 (1st & 2nd Reaction Train)	- Fyrol FR-2	2,190 batches/year 21,500 lbs/batch
	- Fyrol PCF	4,380 batches/year 18,250 lbs/batch
V-200(1)	- Tertiary Butyl Phenol 130 vis feedstock - Tertiary Butyl Phenol 150 vis feedstock - Tertiary Butyl Phenol 220 vis feedstock - Tertiary Butyl Phenol 300 vis feedstock - Tertiary Butyl Phenol 550 vis feedstock or - Iso Propyl Phenol 41L Feedstock - Iso Propyl Phenol 31L Feedstock	1.5 batches/day 154,288 lbs/batch or 1.0 batches/day 154,288 lbs/batch

(1) At no time shall the aggregate actual production of this subunit exceed, with respect to each product and its individual limit, 100%.

4.1.12. Production Unit II Limitations and Standards

4.1.12.1 Maximum annual aggregate emissions from all "Production Unit II" emission points identified under Section 1.0 of this permit shall not exceed the following:

Table 4.1.12.1: Production Unit II Annual Aggregate Emission Limits

Pollutant	tons/year
PM	0.01
VOCs	2.14
Ethylene Oxide	0.13
Ethylene Dichloride	0.29
Formaldehyde	0.02
HCl	0.01
Total HAPs	0.45

4.1.12.2 In each subunit of "Production Unit II" listed in the following table, the production of materials is limited to those specified, and production of those materials shall not, in the aggregate (where multiple products are listed with one limit), exceed the maximum permitted production limit as given:

Table 4.1.12.2.: Production Unit II Subunit Material Limitations

Subunit	Material	Maximum Permitted Production
EAP	Ethyl Acid Phosphate	52 batches/year 4,996 lbs/batch
BAP	Butyl Acid Phosphate	52 batches/year 8,575 lbs/batch
DOAPP	Isooctyl Acid Pyrophosphate	52 batches/year 13,273 lbs/batch
BPA	Benzene Phosphorous Acid	1 batches/day 6,698 lbs/batch
BPOD	Benzene Phosphorous Oxydichloride	52 batches/year 19,093 lbs/batch
Fyrol 6	Fyrol 6 or [redacted] (E06-16)	104 batches/year 31,004 lbs/batch or 104 batches/year 19,677 lbs/batch
Fyrol 99	Fyrol 99	17 batches/year 19,363 lbs/batch
	Fyrol PNX (Technical Grade)	122 batches/year 15,897 lbs/batch
	Fyrol PNX (Reagent Grade)	73 batches/year 15,124 lbs/batch
R-9	- Phosflex 362 (uses 2-ethyl hexanol) - Phosflex 390 (uses isodecyl alcohol) - Phosflex 418 (uses mixed isomer C-12-14 alcohol) - Fyrolflex BDP (uses Bis Phenol A) - Fyrolflex RDP (uses resorcinol) - E08-16T (1,3,2-dioxaphosphorinane, 5-butyl-5ethyl-2-phenoxy-, 2-oxide) or - Fyrquel EHC Plus	2 batches/day 17,640 lbs/batch or 2 batches/day 14,093 lbs/batch
Victawet 12	Victawet 12	52 batches/year 13,978 lbs/batch
SBP	Sodium Benzene Phosphinate	52 batches/year 4,104 lbs/batch

4.1.13. Production Unit III Limitations and Standards

4.1.13.1 Maximum annual aggregate emissions from all "Production Unit III" emission points identified under Section 1.0 of this permit shall not exceed the following:

Table 4.1.13.1: Production Unit III Annual Aggregate Emission Limits

Pollutant	tons/year
PM	0.01
VOCs	0.01
Propylene Oxide	0.001
Ethylene Oxide	0.001
HCl	0.001
Total HAPs	0.01

4.1.13.2 In each subunit of "Production Unit III" listed in the following table, the production of materials is limited to those specified:

Table 4.1.13.2.: Production Unit III Subunit Material Limitations

Subunit	Material	Maximum Permitted Production
POCl3	Phosphorous Oxychloride	240,072 lbs/day
PCl3	Phosphorous Trichloride	214,992 lbs/day

4.1.14. Distribution Limitations and Standards

4.1.14.1 Maximum annual aggregate emissions from all "Distribution" emission points identified under Section 1.0 of this permit shall not exceed the following:

Table 4.1.14.1: Distribution Annual Aggregate Emission Limits

Pollutant	tons/year
VOCs	9.34
Epichlorohydrin	1.12
Phenol	2.07
Total HAPs	3.18

4.1.15. Other Logistics Limitations and Standards

4.1.15.1 Maximum annual aggregate emissions from all "Other Logistics" emission points identified under Section 1.0 of this permit shall not exceed the following:

Table 4.1.15.1: Other Logistics Annual Aggregate Emission Limits

Pollutant	tons/year
PM	0.01
VOCs	20.5

HCl	0.002
Total HAPs	0.002

4.1.16. Oil Systems Limitations and Standards

4.1.16.1 Maximum annual aggregate emissions from all "Oil Systems" emission points identified under Section 1.0 of this permit shall not exceed the following:

Table 4.1.16.1: Other Logistics Annual Aggregate Emission Limits

Pollutant	tons/year
PM	0.03
VOCs	0.01

4.1.17. Wastewater Treatment Limitations and Standards

4.1.17.1 Maximum annual aggregate emissions from all "Wastewater Treatment" emission points identified under Section 1.0 of this permit shall not exceed the following:

Table 4.1.17.1: Wastewater Treatment Annual Aggregate Emission Limits(1)

Pollutant	tons/year
VOCs	0.41
Propylene Oxide	0.01
Propylene Dichloride	0.01
Ethylene Oxide	0.005
Ethylene Dichloride	0.39
Total HAPs	0.41

(1) Emissions calculated using Emitted Fractions from Table 34 of 40CFR63, Subpart G.

4.1.18. Combustion Sources Limitations and Standards

4.1.18.1 The following table provides a list of natural gas combustion units authorized to operate at the subject facility by this permit. The units shall not exceed the specified Maximum Design Heat Input (MDHI), shall utilize the specified control device, and shall combust only natural gas within the specified fuel consumption limits.

Table 4.1.18.1: Natural Gas Combustion Unit Specifications

ID No.	MDHI (MMBtu/Hr)	Control Device(s)	Maximum Annual Natural Gas Limit (MM ft^3)
Boiler B-6	93.70	None	820.81
Boiler B-5A	122.00	None	1,067.84
Heater F-5	8.20	None	71.83
Heater F-6	6.40	None	56.06
Heater F-7	0.75	None	6.57
Heater F-8	0.75	None	6.57

4.1.18.2 The following table provides a list of diesel engines authorized to operate at the subject facility by this permit. The units shall not exceed the specified maximum brake-horsepower, shall utilize the specified control device, and shall not exceed the specified maximum hours of operation.

Table 4.1.18.2: Diesel Engine Specifications

ID No.	Brake Horsepower	Control Device(s)	Maximum Annual Hours of Operation
C-120	128.00	None	500
C-209	78.00	None	500
OM-183	350.00	None	500
OM-184	350.00	None	500
OM-231	368.80	None	500
OM-296	368.80	None	500
P-434	237.00	None	500

4.1.18.3 Emissions resulting from the operation of the sources identified under 4.1.18.1 and 4.1.18.2 shall not exceed those limits as specified in the following table:

Table 4.1.18.3: Combustion Unit Emission Limits

ID No.	CO		NO_X		PM(1)		SO_2		VOC	
	pph	tpy	pph	tpy	pph	tpy	pph	tpy	pph	tpy
Boiler B-6	7.68	33.70	9.18	40.20	0.70	3.08	0.06	0.25	0.47	2.05
Boiler B-5A	10.00	43.80	24.40	106.80	0.91	4.00	0.07	0.32	0.61	2.67
Heater F-5	0.67	2.95	0.80	3.52	0.06	0.27	0.01	0.02	0.04	0.18
Heater F-6	0.52	2.30	0.63	2.75	0.05	0.21	0.00	0.02	0.03	0.14
Heater F-7	0.06	0.27	0.07	0.32	0.01	0.03	0.01	0.01	0.01	0.02
Heater F-8	0.06	0.27	0.07	0.32	0.01	0.03	0.01	0.01	0.01	0.02
C-120	1.74	0.43	8.06	2.00	0.57	0.14	0.53	0.13	0.66	0.16
C-209	0.40	0.10	1.85	0.46	0.13	0.03	0.12	0.03	0.15	0.04
OM-183	2.34	0.58	10.90	2.71	0.77	0.19	0.72	0.18	0.88	0.22
OM-184	2.34	0.58	10.90	2.71	0.77	0.19	0.72	0.18	0.88	0.22
OM-231	2.47	0.62	11.50	2.87	0.81	0.20	0.76	0.19	0.93	0.23
OM-296	2.47	0.62	11.50	2.87	0.81	0.20	0.76	0.19	0.93	0.23
P-434 (2)	0.47	0.12	1.48	0.37	0.05	0.01	0.49	0.12	0.05	0.01

(1) All particulate matter emissions are assumed to be PM_{10} or less.
(2) Emissions certified by firewater pump engine manufacturer (see Section 4.1.18.8 below).

4.1.18.4 The fuel burning units, identified as Boiler B-6 and Boiler B-5A, are subject to the applicable limitations and standards under 45CSR2, as given below under (a) through (c).

a The permittee shall not cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from the fuel burning units which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR§2-3.1]

b. The permittee shall not cause, suffer, allow or permit the discharge of particulate matter into the open air from the fuel burning units, measured in terms of pounds per hour in excess of the amount determined as follows:

(1) The product of 0.05 and the total design heat inputs for such units in million British Thermal Units (B.T.U.'s) per hour, provided however that no more than twelve hundred (1200) pounds per hour of particulate matter shall be discharged into the open air.
[45CSR§2-4.1a]

c. The visible emission standards set forth in section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns and malfunctions. Where the Director believes that start-ups and shutdowns are excessive in duration and/or frequency, the Director may require an owner or operator to provide a written report demonstrating that such frequent start-ups and shutdowns are necessary.
[45CSR§2-9.1]

4.1.18.5 The fuel burning units, identified as the Boiler B-6 and Boiler B-5A, are subject to the applicable limitations and standards under 45CSR10, as given below under (a).

a. The permittee shall not cause, suffer, allow or permit the discharge of sulfur dioxide into the open air from the fuel burning units measured in terms of pounds per hour, in excess of the product of 3.1 and the total design heat input of the Boiler B-6 and Boiler B-5A in million BTU's per hour.
[45CSR§10-3.1]

4.1.18.6. Pursuant to 40 CFR 60, Subpart Db, Boiler B-5A is subject to the following limitations and standards given below under (a) and (b).

a. On and after the date on which the initial performance test is completed or is required to be completed under 40 CFR §60.8, whichever date comes first, the permittee shall not cause to be discharged into the atmosphere from Boiler B-5A any gases that contain nitrogen oxides (expressed as NO_2) in excess of:

(1) 0.10 lb/MMBtu heat input at low-heat release rate, or
(2) 0.20 lb/MMBtu heat input at high-heat release rate.
[40 CFR §60.44Db(a)]

b. On and after the date on which the initial performance test is completed or is required to be completed under 40 CFR §60.8, whichever date comes first, the permittee shall not cause to be discharged into the atmosphere from Boiler B-5A any gases that contain nitrogen oxides (expressed as NO_2) in excess of 0.20 lb/MMBtu heat input.
[40 CFR §60.44Db(l)(1)]

4.1.18.7. The 2015 year, 177 kW/237 bhp firewater pump engine manufacturer must certify that their engine meets the emissions standards in table 4 of this subpart.
[40 CFR§60.4202(d)] (P-434)

4.1.18.8. The firewater pump engine must be fueled with diesel fuel that meets the requirements of 40 CFR 80.610(b).
[40 CFR§60.4207(b)] (P-434)

4.1.18.9. The firewater pump engine must have installed a non-resettable hour meter prior to startup of the engine.
[40 CFR§60.4209(a)] (P-434)

4.1.18.10. The firewater pump which is equipped with a diesel particulate filter must install a back pressure monitor that notifies the permittee when the high back pressure limit of the engine is approached.
[40 CFR§60.4209(b)] (P-434)

4.1.18.11. The permittee must operate and maintain the firewater pump engine such that it achieves the emission standards as required in §§60.4205 over the entire life of the engine.
[40 CFR§60.4206] (P-434)

4.1.18.12. The firewater pump engine must be installed and configured according to the manufacturer's emission-related specifications.
[40 CFR§60.4211(c)] (P-434)

4.1.18.13. The permittee shall operate the emergency firewater pump engine according to the requirements listed below:

(1) There is no time limit on the use of the above engine in emergency situations.

(2) The permittee may operate the above engine for any combination of purposes specified below for a maximum of 100 hours per calendar year.

(i) The above engine may be operated for maintenance checks and readiness testing provided that the tests are recommended by federal, state or local government or the manufacturer. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks or readiness testing, but a petition is not required if the permittee maintains records indicating the federal, state or local standards require maintenance and testing of the above engine beyond 100 hours per calendar year.

(iii) The above engine may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) The emergency firewater pump may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (2) of this section. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
[40 CFR§60.4211(f)] (P-434)

4.1.18.14. If the permittee does not install, configure, operate, and maintain the emergency firewater pump engine according to the manufacturer's emission-related written instructions, or if the permittee changes the emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:

(2) The permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission related written instructions, or within 1 year after the permittee changes the emission-related settings in a way that is not permitted by the manufacturer.
[40 CFR§60.4211(g)] (P-434)

4.1.19. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary. **[45CSR§13-5.11.]**

4.2. Monitoring, Compliance Demonstration, and Record-Keeping Requirements

4.2.1. When the permittee uses any material(s) with a potential to emit of less than 5 pounds per year of an additional HAP that is not limited under Section 4.0 of the permit, the permittee shall maintain records of the use of these materials and any emissions associated with their use. This information will be included in the compliance report required under 4.5.1.

4.2.2. Monitoring of the scrubbers listed under Table 4.1.6 shall be in accordance with the following:

a. The permittee shall install, operate, and maintain instrumentation to continuously monitor the input liquor flow rate of each scrubber. The accuracy of the monitor shall be verified not to exceed ± 0.10 gal/min.

b. The permittee shall calculate and record the daily averages of input liquor flow rates for each scrubber. The daily averages shall be the calculated average of all hourly averages, which are in turn calculated from a minimum of 60 data points collected once per minute.

c. If the calculated daily average is less than the minimum flow rate given under Table 4.1.6, the permittee shall conduct an evaluation of the scrubber to determine the corrective action that needs to be taken. If action to correct the situation is not completed within 24 hours after the excursion is recorded, the permittee shall cease production in the units controlled by the scrubber. Each excursion event shall be recorded and shall include a report of any corrective action taken.

4.2.3. Compliance with the emission limits set forth in Tables 4.1.11.1, 4.1.12.1, 4.1.13.1, 4.1.14.1, 4.1.15.1, 4.1.16.1, and 4.1.17.1 shall be demonstrated by calculating applicable emissions using facility developed emission factors (based upon emissions testing data), emission modeling software, or other appropriate emission estimation models or calculation methodologies. The emission factors, emission models, and other calculation methods shall be maintained current for all processes, process modifications and new product variants. The permittee shall produce, upon request by the Director, and within a reasonable time-frame, calculations that show the actual emissions of the facility (based on the emission factors as described above) from the previous 12 calendar months.

4.2.4. For the purposes of demonstrating continuous compliance with maximum permitted production limitations set forth in Tables 4.1.11.2, 4.1.12.2, and 4.1.13.2, the permittee shall daily monitor and record the following in each subunit: material produced and the amount or batches produced as applicable.

4.2.5. For the purposes of demonstrating compliance with maximum natural gas usage limits set forth in Table 4.1.18.1, the permittee shall:

a. Install, calibrate, maintain, and operate equipment to monitor the amount of natural gas that is consumed in Boiler B-5A.

b. Install, calibrate, maintain, and operate equipment to monitor the hours of operation of each boiler (with the exception of Boiler B-5A) so as to calculate the amount of natural gas that is consumed.

c. Monitor or calculate, as applicable, and record the monthly and rolling twelve month total amount of natural gas that is consumed in each boiler.

4.2.6. For the purposes of demonstrating compliance with maximum hours of operation limits set forth in Table 4.1.18.2, the permittee shall:

a. Install, calibrate, maintain, and operate equipment to monitor the hours of operation of each diesel engine.

b. Monitor and record the monthly and rolling twelve month total hours of operation for each unit.

4.2.7. The permittee shall install, calibrate, maintain, and operate CEMS for measuring NO_x and O_2 (or CO_2) emissions discharged to the atmosphere from Boiler B-5A, and shall record the output of the system; or monitor steam generating unit operating conditions and predict NO_x emission rates as specified in a plan submitted pursuant to 40 CFR §60.49b(c).
[40 CFR §60.48Db(b)(1) and 40 CFR §60.44Db(g)(2)]

4.2.8. The permittee shall, with respect to Boiler B-5A, comply with all applicable monitoring, record-keeping, and reporting requirements of 40 CFR 60, Subpart Db, provided that the permittee meet any more stringent limitations set forth in this permit.

4.2.9. The permittee shall comply with all applicable monitoring, record-keeping, and reporting requirements of 45CSR2, 45CSR10, and 40 CFR 63, Subpart H, provided that the permittee meet any more stringent limitations set forth in this permit.

4.2.10. The permittee is not required to submit an initial notification for the emergency firewater pump engine. The permittee is required to keep records of the operation of the firewater pump engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee must record the time of operation of the engine and the reason the engine was in operation during that time.
[40 CFR§60.4214(b)] (P-434)

4.2.11. The permittee shall keep records of any corrective action taken after the back pressure monitor for the emergency firewater pump engine has notified the permittee that the high back pressure limit of the engine is approached.
[40 CFR§60.4214(c)] (P-434)

4.3. Testing Requirements

4.3.1. The permittee shall continue the application of all previously agreed upon performance testing schedules including those specified under previous iterations of this permit and those agreed upon with the Director outside the scope of a permitting action. Further, at such reasonable time(s) as the Director may designate, the permittee shall conduct or have conducted additional performance tests to determine compliance with the emission limits under Section 4.0 of this permit according to the procedures under 3.3.1.

4.3.2. The permittee shall meet all applicable testing requirements of 45CSR2, 45CSR10, 40 CFR 60, Subpart Db, and 40 CFR 63, Subpart H, provided that the permittee meet any more stringent limitations set forth in this permit.

4.3.3. The permittee of the emergency firewater pump engine who conducts performance tests pursuant to this subpart must do so according to paragraphs (a) through (e) of this section.
[40 CFR§60.4212] (P-434)

4.4. Recordkeeping Requirements

4.4.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit and time of sampling or measurements;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

f. The operating conditions existing at the time of sampling or measurement.

4.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

4.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.

b. Steps taken to minimize emissions during the event.

c. The duration of the event.

d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

e. The cause of the malfunction.

f. Steps taken to correct the malfunction.

g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

4.5. Reporting Requirements

4.5.1. The permittee shall submit the following information to the DAQ according to the specified schedules:

a. The permittee shall submit reports of all required monitoring on or before September 15 for the reporting period January 1 to June 30 and March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports.

b. The permittee shall submit to the Director on or before March 15, a certification of compliance with all requirements of this permit for the previous calendar year ending on December 31. If, during the previous annual period, the permittee had been out of compliance with any part of this permit, it shall be noted along with the following information: 1) the source/equipment/process that was non-compliant and the specific requirement of this permit that was not met, 2) the date the permitted discovered that the source/ equipment/process was out of compliance, 3) the date the Director was notified, 4) the corrective measures to get the source/equipment/process back into compliance, and 5) the date the source began to operate in compliance. The submission of any non-compliance report shall give no enforcement action immunity to episodes of non-compliance contained therein.

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature[1] _____ _____
(please use blue ink) Responsible Official or Authorized Representative Date

Name and Title _____ _____
(please print or type) Name Title

Telephone No. _____ Fax No. _____

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[1] This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

(I) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), or

(ii) the delegation of authority to such representative is approved in advance by the Director;

b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of USEPA); or

d. The designated representative delegated with such authority and approved in advance by the Director.