



Shell Chemical Appalachia LLC  
300 Frankfort Rd  
Monaca, PA 15061

December 23, 2022

Director  
Air Protection Section  
Mail Code 3AP00  
U.S. EPA, Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

Mark Gorog, P.E., Air Quality Program Regional Manager  
Pennsylvania Department of Environmental Protection  
Southwest Regional Office  
400 Waterfront Drive  
Pittsburgh, PA 15222 1650

**RE: Shell Chemical Appalachia LLC  
Shell Polymers Monaca Site  
Potter and Center Townships, Beaver County  
Plan Approval PA-04-00740A & C  
Initial Report for 40 CFR Part 61 Subpart FF  
National Emission Standard for Benzene Waste Operations**

Dear All:

Subsequent to our March 21, 2022 initial start-up notification letter for the wastewater treatment plant and recovered oil storage tanks, Shell Chemical Appalachia LLC (Shell) is providing the required initial report for 40 CFR Part 61, Subpart FF – National Emission Standard for Benzene Waste Operations. As the site is still in the commissioning phase of the various process units, we are providing the initial report for the aqueous waste streams for the facility based on engineering design estimates. See attached list of aqueous sources currently subject to the reference Standard.

Based on the initial list applicable sources, Shell is below the 1.0 Mg/year total annual benzene (TAB) quantity threshold. As process data becomes available as the site moves into normal operation, the list will be updated to reflect this additional information for compliance with the Standard.

Please contact me at 724.709.2467 or [Kimberly.kaal@shell.com](mailto:Kimberly.kaal@shell.com) if you have any questions or need additional information.

Sincerely,

*Kimberly Kaal*

Kimberly Kaal

Environmental Manager, Attorney-in-Fact

Attachment: Initial BWON Source List

TOTAL ANNUAL BENZENE (TAB) QUANTITY CALCULATIONS  
SHELL POLYMERS MONACA

Process Unit	Vessel or Equipment		Destination Controlled	Percent Aqueous	Aqueous Benzene Concentration (ppm)			Organic Benzene Concentration (ppm)			Aqueous		Organic		Controlled Benzene (kg/yr)
					Min	Max	Avg	Min	Max	Avg	Water Waste Quantity (kg/yr)	Water Benzene Quantity (kg/yr)	Oil Waste Quantity (kg/yr)	Oil Benzene Quantity (kg/yr)	
	Equipment No.	Name			(Y/N)	(% vol)									
ECU	C-13601	Heavy Hydrocarbon Absorber (column bottoms)	Y	0.10	-	-	-	27,000.00	30,000.00	28,500.00	147.22	-	1,324.98	37.76	37.76
ECU	E-13614	Water/HC Heater (exchanger tube side)	Y	1.00	-	-	-	27,000.00	30,000.00	28,500.00	379.09	-	-	-	-
ECU	E-13614	Water/HC Heater (exchanger shell side)	Y	0.10	-	-	-	20.00	50.00	35.00	28.43	-	255.89	0.01	0.01
ECU	V-12831	Gasoline/Water Separator	Y	0.50	-	1,800.00	900.00	-	31,000.00	28,500.00	318.44	0.29	318.44	9.08	9.36
ECU	S-12863	Quench Water Side Stream Filter	Y	1.00	-	1,800.00	900.00	-	50.00	30.00	588.35	0.53	-	-	0.53
ECU	V-12833	Liquid - Liquid Separator	Y	0.10	-	1,800.00	900.00	-	50.00	30.00	147.09	0.13	1,323.79	0.04	0.17
ECU	S-12861 A/B	Coalescer Prefilter I	Y	0.10	-	1,800.00	900.00				132.68	0.12	1,194.14	-	0.12
ECU	S-12862 A/B	Coalescer Prefilter II	Y	0.10	-	1,800.00	900.00				132.68	0.12	1,194.14	-	0.12
ECU	P-12877 A/B	Pyrolysis Gasoline Pump I	Y	0.10	-	1,800.00	900.00				30.33	0.03	272.95	-	0.03
ECU	P-12876 A/B	Process Water Pump I	Y	1.00	-	1,800.00	900.00				284.32	0.26	-	-	0.26
ECU	P-12872 A/B	Warm Quench Water Pumps	Y	1.00	-	60.00	3.00				1,421.59	0.00	-	-	0.00
ECU	P-12873 A/B	Cold Quench Water Pumps	Y	1.00	-	60.00	3.00				1,421.59	0.00	-	-	0.00
ECU	E-13014	Process Water Stripper Feed Preheater	Y	1.00	-	60.00	3.00				284.32	0.00	-	-	0.00
ECU	E-13011A	Process Steam Generator	Y	1.00	-	60.00	3.00				1,421.59	0.00	-	-	0.00
ECU	E-13011B	Process Steam Generator	Y	1.00	-	60.00	3.00				1,421.59	0.00	-	-	0.00
ECU	E-13011C	Process Steam Generator	Y	1.00	-	60.00	3.00				1,421.59	0.00	-	-	0.00
ECU	E-13011D	Process Steam Generator	Y	1.00	-	60.00	3.00				1,421.59	0.00	-	-	0.00
ECU	P-13071A	Process Water Pump II	Y	1.00	-	60.00	3.00				284.32	0.00	-	-	0.00
ECU	P-13071B	Process Water Pump II	Y	1.00	-	60.00	3.00				284.32	0.00	-	-	0.00
ECU	E-13015	Process Water Preheater	Y	1.00	-	60.00	3.00				113.73	0.00	-	-	0.00
ECU	V-13031	Process Steam Separator	Y	1.00	-	60.00	3.00	-	-	-	113.73	0.00	-	-	0.00
ECU	E-13016	Process Water Blowdown Cooler I	Y	0.10	-	60.00	3.00				142.16	0.00	1,279.43	-	0.00
ECU	E-13012 A/B	Process Water Blowdown Cooler II	Y	0.10	-	60.00	3.00				142.16	0.00	1,279.43	-	0.00
ECU	C-13001	Process Water Stripper	Y	0.10	-	60.00	3.00				142.16	0.00	1,279.43	-	0.00
ECU	V-13431	Spent Caustic Gasoline Separator I	Y	0.10	-	60.00	3.00				30.33	0.00	272.95	-	0.00
ECU	V-13432	Spent Caustic Gasoline Separator II	Y	0.10	-	60.00	3.00				30.33	0.00	272.95	-	0.00
ECU	V-15831	Gasoline Condensate Drum, cont. process water	Y	0.90	-	1,800.00	900.00	120,000.00	450,000.00	225,000.00	360.29	0.32	40.03	9.01	9.33
ECU	V-15831	Gasoline Condensate Drum	Y	0.10	-	1,800.00	900.00				151.64	0.14	1,364.73	-	0.14
ECU	Y-15852	Condensate Lift Station	Y	0.10	-	1,800.00	900.00				28.43	0.03	255.89	-	0.03
ECU	P-15872 A/B	Light Gasoline Pumps	Y	0.10	-	1,800.00	900.00				30.33	0.03	272.95	-	0.03
											<b>Controlled Aqueous BZ Quantity (kg/yr)</b>		<b>TOTAL BENZENE QUANTITY (Mg/yr):</b>		<b>0.06</b>
											<b>Controlled Organic BZ Quantity (kg/yr)</b>		<b>TOTAL WASTE QUANTITY (Mg/yr):</b>		<b>25.06</b>