July 14, 2016

Shell Chemical Appalachia LLC
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Houston, TX 77002
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Mr. Ronald A. Schwartz
Assistant Regional Director
PA Department of Environmental Protection
Southwest Regional Office
400 Waterfront Drive
Pittsburgh, PA 15222-4745

Subject **Amendment Application**
NPDES Permit Number PA0002208
Shell Chemical Appalachia LLC, Beaver County, Pennsylvania

Dear Mr. Schwartz:

As discussed with your Department, enclosed are updates to our subject amendment application. This submission addresses the following items:

1. **Mall Lot 2 Inclusion of SEEP1**
   For the seep (identified as SEEP1 in the Baker Report) on Mall Lot 2; as requested by the Department, we are including information on Department forms so this surface discharge can be incorporated into the permit amendment. Attachment 1 contains the completed pages from PADEP form 3800-PM-BPNPSM0008b to address the seep including results of recent sampling analysis.

   Also on the forms we have corrected outfalls 002 and 003 (East RR pond outfalls) to note that they drain to Rag Run – not the Ohio River as indicated on the original submittal. On this same page we have also revised the Latitude and Longitude for outfalls on Mall Lot 2 (002, 003 and 005) based on most recent survey data.

   Note that only the changes from previous submittals are addressed in these forms. We have not repeated information that has not changed.

2. **Steam Condensate Discharges**
   There will be steam traps/lines throughout the facility and there is a potential for steam condensate discharge from these traps/lines. For a steam discharge it is mostly likely it would evaporate or infiltrate into the surrounding soil; however based on drainage patterns the following two outfalls could receive steam condensate:

   - CR pond outfall 008
   - North Pond outfall 013

We are requesting the description of the wastewaters to these two ponds be revised to include the possibility of steam condensate.

3. **Clarification of Process Wastewaters**

For completeness, we want to clarify that in our application the term process wastewaters includes various non-process contaminated wastewater streams generated from operation of the facility that will be handled and treated as process wastewater. As noted in Table VII-50 of the EPA Development Document for the Effluent Limit Guidelines (ELG) for Organic Chemicals, Plastics and Synthetic Fibers (OCPSF), numerous types of non-process wastewater streams that are generated in operation of an OCPSF facility and that are contaminated are designated as process wastewater for applicability under the ELG.

Many of these type wastewater streams as listed in Table VII-50 will be generated at the facility (i.e. storm water, cleaning of rail cars, cleaning of catalysts, etc.) and will be routed to the wastewater treatment plant from treatment prior to discharge.

We are identifying this for completeness purposes. No changes are required as these streams have already been factored into the flow and effluent levels provided in our application.

Please call me at 281.731.3287 if we can provide any additional information or answer any questions about this request.

Sincerely,

H. James Sewell
Environmental Manager
Shell Chemical Appalachia LLC
300 Frankfort Rd, Shell Trailer
Monaca, PA 15061

Encls. Attachment 1 – PADEP Forms
Attachment 2 – Sampling Laboratory Analysis

Attachment 1

PADEP Forms for SEEP1

2. List all discharge points (outfalls) and internal monitoring points (IMPs). If numbers were previously assigned in a permit, use those numbers. Order sequentially and use additional pages as necessary.

Outfall / IMP No.	LATITUDE			LONGITUDE			RECEIVING WATERS			
	Deg	Min	Sec	Deg	Min	Sec	Name of Receiving Waters	Ch. 93 Class.	Impaired?	TMDL?
002	40	40	36.32	-80	19	43.83	Rag Run (East RR Pond)	WWF	☐	☐
003	40	40	36.32	-80	19	43.51	Rag Run (East RR Pond Overflow)	WWF	☐	☐
005	40	40	50.29	-80	19	11.14	Ohio River (Mall Lot 2)	WWF	☒	☒
015	40	40	47.53	-80	19	19.32	Ohio River (Mall Lot 2)	WWF	☒	☒

1. Values in RED are changes/addition from that submitted in our original application of November 2015
2. The following tables provide the information for new outfall 015 (Mall Lot 2 SEEP-1)

3. List all outfalls and IMPs in the same order as in question 2, above, and provide the requested information. Attach additional pages as necessary. See instructions.

Outfall / IMP No.	DISCHARGE CHARACTERIZATION							Design Flow (MGD)	Average Flow During Production / Operation (MGD)	Maximum Flow During Production / Operation (MGD)
	Process	Non-Process	Stormwater	Sewage	Groundwater	AAPF	Combined			
015	☐	☐	☐	☐	☒	☐	☐	0	NA	NA
	☐	☐	☐	☐	☐	☐	☐			
	☐	☐	☐	☐	☐	☐	☐			
	☐	☐	☐	☐	☐	☐	☐			
	☐	☐	☐	☐	☐	☐	☐			

Applicant Name: Shell Chemical Appalachia LLC

4. List all outfalls and IMPs in the same order as in questions 2 and 3, above, and provide the requested information. Attach additional pages as necessary. See instructions.

Outfall / IMP No.	Wastewater or Stormwater Description	Discharge Type	Frequency		Batch Discharges		
			Hours / Day	Days / Week	No. Discharge Cycles/Day	Length of Discharge Cycle (Hrs)	Batch Discharge Rate (MGD)
015	Mall Lot 2 Ground Water	Ground water seep					

POLLUTANT IDENTIFICATION AND ANALYSIS

1. Summary of Required Analyses (see instructions):

Outfall / IMP No.	Pollutant Groups which must be sampled for and analyzed							Other Pollutants Analyzed
	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	
015	☒	☒	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	☐	☐	
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	☐	☐	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	☐	☐	

2. Other Potentially Toxic Pollutants Known or Expected to be Present in the Discharge.

a. GC/MS "Five Peaks" Pollutants (see instructions).

Outfall / IMP No.	Group Number (3 - 6)	Chemical or Compound Name	Quantitation Limit (µg/L)	Avg Effluent Concentration (µg/L)	Max Effluent Concentration (µg/L)	No. Samples Positive / No. Analyzed
						/
						/
						/
						/
						/

b. Other Potential Pollutants.

Outfall / IMP No.	Chemical Substance or Compound Name	Reason/Suspected Reason for Presence in Discharge	Avg Concentration (µg/L)	Indicate if Presence is Known (K) or Suspected (S)

☐ If additional peaks were not available for one or more groups with the method used check here and attach an explanation of why the method was selected.

3. Additional Analysis Results Tables may be attached to provide any of the optional site-specific information discussed in Appendix A of the instructions.
Optional site-specific data is attached to this application? ☐ Yes ☒ No

Applicant Name: Shell Chemical Appalachia LLC

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 1

Please read instructions carefully before completing this form.

APPLICANT NAME Shell Chemical Appalachia LLC

☒ **Outfall / IMP Number 015** (Show location of sampling point on Line Drawing)
☐ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☒ New Discharge (Basis for Information: **Sample Data Analysis**)

POLLUTANT GROUP 1 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
BOD_5 (mg/L)	<2	<0.0018	<2	<0.0018			3	3		SM SM 5210B
COD (mg/L)	24	0.0216	<10.87	<0.0098			3	2		MCAWW 410.4
TOC (mg/L)	2.3	0.0021	2.033	0.0018			3			SM SM 5310C
TSS (mg/L)	12	0.0108	10.3	0.0093			3			SM SM 2540D
Ammonia-Nitrogen (mg/L)	0.39	0.0004	0.3	0.0003			3			MCAWW 350.1
Temperature (Winter) (°F)		XXX		XXX		XXX	3	XXX	XXX	
Temperature (Summer) (°F)	67	XXX	64	XXX		XXX	3	XXX	XXX	
pH – Minimum (S.U.)	7.0	XXX	XXX	XXX		XXX	3	XXX	XXX	
pH – Maximum (S.U.)	7.26	XXX	XXX	XXX		XXX	3	XXX	XXX	
Fecal Coliform (No./100 mL)	27	XXX	NA	XXX		XXX	3		XXX	SM9222-D
Oil and Grease (mg/L)	<2.30	<0.0021	<2.07	<0.0019			3	3		1664B 1664B
TRC (mg/L)	0.05	XXX	NA	XXX		XXX	3	2		EPA Field Sampling
Total Phosphorus (mg/L)	<0.066	<5.94E-05	<0.055	<4.92E-05			3	3		SM SM4500 P E-1999
TKN (mg/L)	<3.40	<0.0031	<2.27	<0.0020			3	3		SM SM4500_NH3_C
Nitrite + Nitrate-Nitrogen (mg/L)	<0.32	<0.0003	<0.22	<0.0002			3			MCAWW 300.0
Total Dissolved Solids (mg/L)	790	0.71	787	0.71			3			SM SM 2540C
Color (Pt-Co Units)	20	XXX	NA	XXX		XXX	3			SM SM 2120B
Bromide (mg/L)	<0.058	<0.0001	<0.058	<0.0001			3	3		MCAWW 300.0
Chloride (mg/L)	179	0.1612	174	0.1564			3			MCAWW 300.0
Sulfate (mg/L)	216	0.1946	215	0.1934			3			MCAWW 300.0
Sulfide (mg/L)	<4.70	<0.0042	<4.70	<0.0042			3	3		SM SM 4500 S2 F
Surfactants (mg/L)	<0.055	<4.95E-05	<0.040	<3.60E-05			3	3		SM SM 5540C
Fluoride (mg/L)	0.168	1.51E-04	0.164	1.48E-04			3			MCAWW 300.0
Total Hardness (mg/L)	380	0.3423	373	0.3363			3			SM SM 2340C

Applicant Name: Shell Chemical Appalachia LLC

ANALYSIS RESULTS TABLE
POLLUTANT GROUP 2

APPLICANT NAME	Shell Chemical Appalachia LLC

☒ **Outfall / IMP Number 015** (Show location of sampling point on Line Drawing)
☐ Treatment Facility Influent Sampling Results (Show location of sampling point on Line Drawing)
☐ Intake Sampling Results (Specify Source: _____)
☐ Background (Upstream) Sampling Results (Specify Location: _____)
☒ New Discharge (Basis for Information: **Sample Data Analysis)**

POLLUTANT GROUP 2 PARAMETERS	CONCENTRATION / MASS PRESENT						No. Analyses	No. "Non-Detect" Results	QL Used	Method Used
	Min/Max Daily Value		Max Avg Monthly Value		Long-Term Avg Value					
	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)	Conc	Mass (lbs/day)				
Aluminum, Total (µg/L)	210	0.00019	<126	<0.00011			3	2		SW846 6010C
Antimony, Total (µg/L)	<3.2	<2.88E-06	<3.2	<2.88E-06			3	3		SW846 6010C
Arsenic, Total (µg/L)	<6.0	<5.40E-06	<5.5	<4.95E-06			3	3		SW846 6010C
Barium, Total (µg/L)	<99.0	<8.92E-05	<93.7	<8.44E-05			3	3		SW846 6010C
Beryllium, Total (µg/L)	<0.42	<3.78E-07	<0.42	<3.78E-07			3	3		SW846 6010C
Boron, Total (µg/L)	2,800	0.00252	2,633	0.00237			3			SW846 6010C
Cadmium, Total (µg/L)	<0.45	<4.05E-07	<0.34	<3.09E-07			3	3		SW846 6010C
Chromium, Total (µg/L)	<0.61	<5.49E-07	<0.61	<5.49E-07			3	3		SW846 6010C
Chromium, Hexavalent (µg/L)	<4.1	<3.69E-06	<3.9	<3.51E-06			3	3		SW846 7196A
Cobalt, Total (µg/L)	<1.60	<1.44E-06	<1.30	<1.17E-06			3	3		SW846 6010C
Copper, Total (µg/L)	<3.40	<3.06E-06	<3.40	<3.06E-06			3	3		SW846 6010C
Cyanide, Total (µg/L)	<3.8	<3.42E-06	<3.8	<3.42E-06			3	3		SM SM 4500 CN E
Iron, Total (µg/L)	650	0.00059	467	0.00042			3			SW846 6010C
Iron, Dissolved (µg/L)	110	0.00010	<64	<0.0001			3	2		SW846 6010C
Lead, Total (µg/L)	<3.10	<2.79E-06	<3.10	<2.79E-06			3	3		SW846 6010C
Manganese, Total (µg/L)	1,800	0.00162	1,667	0.00150			3			SW846 6010C
Mercury, Total (µg/L)	<0.0520	<4.68E-08	<0.0520	<4.68E-08			3	3		SW846 7470A
Molybdenum, Total (µg/L)	42	0.00004	41	0.00004			3			SW846 6010C
Nickel, Total (µg/L)	<5.00	<4.50E-06	<4.47	<4.02E-06			3	3		SW846 6010C
Phenols, Total (µg/L)	<8.20	<7.39E-06	<8.20	<7.39E-06			3	3		MCAWW 420.1
Selenium, Total (µg/L)	<4.80	<4.32E-06	<4.13	<3.72E-06			3	3		SW846 6010C
Silver, Total (µg/L)	<1.20	<1.08E-06	<1.20	<1.08E-06			3	3		SW846 6010C
Thallium, Total (µg/L)	<2.80	<2.52E-06	<2.67	<2.40E-06			3	3		SW846 6010C
Zinc, Total (µg/L)	170	0.00015	150.0	0.00014			3			SW846 6010C