Shell Chemical Appalachia LLC
Shell Oil Company
One Shell Plaza
910 Louisiana Street
Houston, TX 77002

October 17, 2016

Mr. Ryan Decker
Clean Water Program
PA Department of Environmental Protection
Southwest Regional Office
400 Waterfront Drive
Pittsburgh, PA 15222-4745

RE: **Draft NPDES Permit**
NPDES Permit No. PA0002208, Amendment 1
Shell Chemical Appalachia LLC, Beaver County, Pennsylvania

Dear Mr. Decker:

Per your August 25, 2016 letter providing the subject draft permit for review, the following are our comments:

1. **Hexachlorobenzene**
   Hexachlorobenzene levels for IMP 101 (Page 5 of Draft Permit) appear to be a "typo" as there is no basis for the numbers. In the discussions in the "Fact Sheet" process wastewaters from Shell's proposed petrochemical plant are subject to Federal Effluent Limitations Guidelines (ELGs) under 40 CFR Part 414 – Organic Chemicals, Plastics and Synthetic Fibers (OCPSF) Point Source Category. The concentration values listed in the ELG for Hexachlorobenzene are 0.028 ug/l for Daily Max. and 0.015 for Average Monthly Max., and are the values listed on Page 23 of Fact Sheet.

   We request that the Hexachlorobenzene effluent levels be consistent with ELG.

2. **Delete Pumpback outfalls**
   The following outfalls are for discharges from any potential overflows from pump back areas:
   - 104 Draft permit pages 45 and 46
   - 204 Draft permit pages 49 and 50
   - 304 Draft permit pages 51 and 52
   - 404 Draft permit pages 53 and 54
   - 504 Draft permit pages 55 and 56
   - 604 Draft permit pages 57 and 58
   - 713 Draft permit pages 59 and 60

The pumpback areas were designed so that low areas of the site could be dewatered by collecting excess stormwater during initial site earth moving/filling activities and conveying to the two ponds for treatment and discharge through the interim treatment system (ITS).

We are requesting to delete these outfalls as most of the site has essentially been leveled and many of these areas do not exist. If there is a need to dewater an area, portable pumps can be utilized to convey the stormwater to the two ponds.

Note that we want to retain pumpback 813 (Pages 61 and 62) as some work is still on-going in this general area.

3. **Interim Stormwater Outfalls**
Outfalls 008 (Pages 22 and 23), Outfall 009 (Pages 26 and 27) and Outfall 010 (Pages 29 and 30) are for untreated stormwater and for effective date to the interim period. Per page 3 of the Fact sheet, these outfalls are to transition to Construction Stormwater outfalls with issuance of this permit amendment.

Please delete these outfalls as they will be utilized for construction stormwater discharge with issuance of the permit.

4. **Construction Stormwater Outfalls**
Outfalls 017 (Page 40), 018 (Page 41) and 019 (Page 42) were utilized for construction activities that are now complete in these areas. These outfalls are no longer needed as the discharge has been eliminated in these areas. Please delete these outfalls from the draft permit.

5. **Emergency Discharge from Accidentally Contaminated (AC) Pond**
Future Outfall 004 (on Page 13 of Draft Permit) has been assigned as the overflow from the Accidentally Contaminated (AC) Pond to Poorhouse Run. Based on the current design basis the emergency overflow from the AC Pond will be a piped connection (with a closed valve) to the Clean Rainwater (CR) Pond. In case of an extreme storm event, the AC water from the AC Pond will be allowed to transfer to CR Pond to prevent flooding in the water treating area around the AC pond. The comingled stormwater will be brought back into the AC Pond for processing to Wastewater Treatment Plant. In case of continuous extreme storm event the possibility exists for a discharge from the combined AC/CR Pond through Outfall 009 to Poorhouse Run (Page 26).

To eliminate the need to renumber the outfalls, an option to address this extreme occurrence is for outfall 004 on Page 13 to be listed as the same physical location as Outfall 009 and change description for Outfall 004 to - "Overflows of combined storm water from Accidentally Contaminated (AC) Pond and Clean Rainwater (CR) Pond". It is our interpretation that under this scenario the monitoring/effluent limits for outfall 004 would only be applicable if there ever is a combine storm water discharge from the AC and CR ponds at this physical location. If this is not a correct interpretation or the Department has a different way of addressing this discharge please let us know.

6. **Interim Treatment System (ITS)**
For development of the site, Shell has followed the Act 2 brownfields restoration process to utilize the site in an environmentally safe manner. Per the Act 2 process, all of the "areas of concern" have been capped with a concrete or a plastic liner. In addition, as part of the process to develop a level site, the majority of the site has been covered with at least a 2 foot cap of clean soil. At this point, a limited amount of soil work remains and of the remaining areas none drain to the two lined treatment ponds (remaining soil work is in the areas around SR 18 exit and entrance ramps to Interstate 376).

Based on the current status of the site and the water sampling data we have obtained from the two lined treatment ponds (Stormwater Replacement Pond now called the North Pond and the West Retention

Pond) we are requesting to delete the use of the ITS. For Outfall 004 (Page 11) and 013 (Page 33) that both address the "Permit Effective Date" through "End of Interim Period" we request that the word "Treated" is deleted from the type of effluent and effluent limitations imposed at these outfalls be consistent with those required for construction stormwater.

Attachment 1 contains sampling data from the North Pond and the West Retention Pond conducted in 2016. The data is sampled from each pond ***prior to any treatment or discharge*** and is therefore representative of "untreated" stormwater.

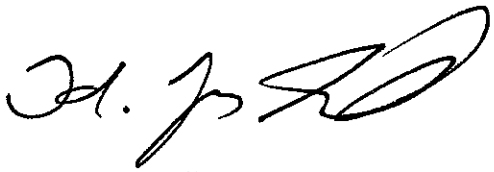
It is important to note that the permit has total suspended solids (TSS) limits based on a treatment/filtering system. These data were sampled in the pond prior to any treatment to quantify presence of any metals. Although some of the sampled TSS values are above the permit levels, this is to be expected based on the sample point and rationale for TSS limits. The type of water at this sample point is most representative of PADEP's PAG-02 (Stormwater Discharges Associated with Construction Activities) which has no TSS limit. Also the limit in PADEP PAG-03 (Stormwater Discharges Associated with Industrial Activities) is 100 mg/l which is factor of 10 higher than the limit for treated TSS in the permit.

The following is a summary of the metal data compared to the treated effluent limits for the ITS:

	West Pond	**North Pond**
Constituents with Effluent Limits	19 Samples	15 Samples
Arsenic	1 detect – Factor 50 below monthly limit	1 detect – Factor 50 below monthly limit
Cadmium	2 detects – Factor 10 to 100 below monthly limit	2 detects – Factor 10 to 100 below monthly limit
Copper	6 detects – One was above monthly limit in June with high TSS due to 1.9+ inch rainfall in less than 1 hour. Of the five samples since event, two were non-detect and two were factor 20 below monthly limit.	5 detects – Factor 4 below monthly limit
Lead	3 detects – Factor 2 to 10 below monthly limit.	6 detects – 10 below monthly limit
Zinc	10 detects – Two above monthly limit both in June with high TSS due to 1.9+ inch rainfall in less than 1 hour. Four samples since event two non-detect and other two factor 10 below limit.	11 detects – Two samples in February were above monthly limit. All 13 samples since have been factor of 2 to 10 below monthly limit.

Please call if you need additional information or we can answer any questions about these comments or information that we have provided.

Sincerely,



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

Enclosure: Attachment 1 – Sampling Results from Ponds

Attachment 1

Pond Data

Sampling Results from Lined Stormwater Ponds

NORTH POND

Method	Analyte	Outfall 013 NPDES Monthly Limits	Outfall 013 NPDES Daily Maximum Limits	Outfall 013 NPDES Instantaneous Maximum*	Units	Date Sampled	2/8/2016	2/29/2016	5/23/2016	5/31/2016	6/6/2016	6/17/2016	6/21/2016	6/29/2016	7/8/2016	7/14/2016	7/19/2016	7/25/2016	7/27/2016	7/29/2016	8/17/2016
SM2540C	Total Dissolved Solids	-	-	-	mg/L		270	260	96	130	210	250	230	210	220	230	240	-	260	250	340
SM2540D	Total Suspended Solids	10	15	19	mg/L		14	15	12	4.4	17	36	39	18	22	7.1	7	-	2.6	5.8	11
SW846 6010C	Aluminum	-	-	-	mg/L		0.37	0.11 J	0.69	0.14 J	6.2	1.8	0.81	0.15 J	0.63	0.19 J, B	0.17 J	1.4	0.24	0.27 -	3.5
SW846 6010C	Arsenic	0.57	1.39	1.7	mg/L		< 0.0037	0.0037 J	< 0.0048	0.0055 J	0.0076 J	0.0081 J	0.01	< 0.0048	0.0071 J	< 0.0048	< 0.0048	< 0.0048	< 0.0048	< 0.0048	< 0.0048
SW846 6010C	Barium	-	-	-	mg/L		0.054 J	0.05 J	0.054 J	0.077 J	0.066 J	0.064 J	0.054 J	0.042 J	0.058 J	0.061 J	0.052 J	0.062 J	0.056 J	0.059 J	0.056
SW846 6010C	Cadmium	0.08	0.2	0.3	mg/L		0.058	0.078	0.028	0.016	0.004 J	0.0042 J	0.0022 J	0.0003 J	0.0016 J	0.00066 J	0.0009 J	0.0026 J	0.0012 J	0.00088 J	0.0024
SW846 6010C	Chromium	-	-	-	mg/L		0.001 J	< 0.00097	0.0014 J	< 0.00061	0.0067	0.0027 J	0.0013 J	< 0.00061	0.0011 J	< 0.00061	0.00064 J	0.0017 J	0.00071 J	< 0.00061	0.0037
SW846 6010C	Copper	0.61	1.28	1.6	mg/L		0.01 J	0.0078 J	0.014 J	0.0078 J	0.0083 J	0.0098 J	0.0087 J	< 0.0034	0.0059 J	0.13	0.016 J	0.23	0.096	0.081	0.0043
SW846 6010C	Iron	-	-	-	mg/L		0.37	0.099 J	0.86	0.096 J	2.3	2.3	0.97	0.08 J	0.7	0.18	0.11	0.64	< 0.041	0.079 J	1.3
SW846 6010C	Lead	0.09	0.1	0.13	mg/L		0.02	0.01	0.018	0.0041 J	0.014	0.017	0.0072 J	< 0.0031	0.0094 J	0.0037 J	< 0.0031	< 0.0031	< 0.0031	< 0.0031	0.0056
SW846 6010C	Manganese	-	-	-	mg/L		0.027	0.034	0.043	0.04	0.084	0.061	0.045	0.0085 J	0.035	0.04	0.015	0.047	0.043	0.034	0.084
SW846 6010C	Nickel	-	-	-	mg/L		0.0044 J	0.0043 J	< 0.0032	< 0.0032	< 0.0032	0.0041 J	< 0.0032	< 0.0032	< 0.0032	< 0.0032	< 0.0032	< 0.0032	< 0.0032	< 0.0032	0.0046
SW846 6010C	Selenium	-	-	-	mg/L		0.0034 J	0.0034 J	< 0.0038	< 0.0038	0.0081 J	0.01	0.008 J	0.0065 J	0.0068 J	0.0082 J	0.0076 J	0.0098 J	0.0098 J	0.0091 J	0.015
SW846 6010C	Thallium	-	-	-	mg/L		< 0.0014	< 0.0014	< 0.0026	< 0.0026	< 0.0026	< 0.0026	< 0.0026	< 0.0026	< 0.0026	< 0.0026	< 0.0026	< 0.0026	< 0.0026	< 0.0026	< 0.0026
SW846 6010C	Zinc	0.42	1.02	1.3	mg/L		0.73	0.79	0.31	0.077	0.14	0.18	0.1	0.0072 J	0.11	0.017 J	0.01 J	0.047	< 0.0069	< 0.0069	0.061
SW846 7470A	Mercury	-	-	-	mg/L		0.00017 J	0.000076 J	0.00019 J	0.000052 J	0.00019 J	0.00017 J	0.00012 J	< 0.000052	0.000069 J, B	< 0.000052	< 0.000052	0.00008 J	< 0.000052	< 0.000052	< 0.000052
SW846 9040C	pH	6 - 9	-	-	pH Units		7.95	6.35	8.1		7.91			10.4	8.98		8.8	8.08	8.05		7.67

WEST POND

Method	Analyte	Outfall 004 NPDES Monthly Limits	Outfall 004 NPDES Daily Maximum Limits	Outfall 004 NPDES Instantaneous Maximum*	Units	Date Sampled	2/8/2016	2/29/2016	3/9/2016	3/17/2016	3/23/2016	3/30/2016	4/12/2016	4/19/2016	4/27/2016	5/3/2016	5/17/2016	5/23/2016	5/31/2016	6/6/2016	6/17/2016	6/27/2016	7/6/2016	7/27/2016	8/23/2016
						Sample Type	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
SM2540C	Total Dissolved Solids	-	-	-	mg/L		170	130	130	140	130	140	140	140	130	120	140	120	150	330	330	140	170	160	-
SM2540D	Total Suspended Solids	10	15	19	mg/L		160	3.5	2.8	5.4	2.3	5.5	4.9	7	5.6	7.2	6.7	12	7.9	380	130	13	5.5	36	-
SW846 6010C	Aluminum	-	-	-	mg/L		3	0.081 J	0.1 J	0.14 J	0.066 J	0.074 J	0.19 J	0.23	0.085 J	0.066 J	0.25	0.51	0.3	52	4.5	1.4	0.35	3.4	2.5
SW846 6010C	Arsenic	0.57	1.39	1.7	mg/L		0.004 J	< 0.0037	< 0.0037	< 0.0037	< 0.0037	< 0.0037	< 0.0037	< 0.0037	< 0.0037	< 0.0037	< 0.0048	< 0.0048	< 0.0048	0.011	0.0061 J	< 0.0048	< 0.0048	< 0.0048	< 0.0048
SW846 6010C	Barium	-	-	-	mg/L		0.11 J	0.063 J	0.059 J	0.061 J	0.061 J	0.058 J	0.061 J	0.061 J	0.054 J	0.055 J	0.054 J	0.058 J	0.056 J	0.28	0.1 J	0.055 J	0.055 J	0.14 J	0.074
SW846 6010C	Cadmium	0.08	0.2	0.3	mg/L		0.0011 J	0.00059 J	0.0005 J	0.00092 J	0.00052 J	0.00054 J	0.00048 J	0.00071 J	0.00027 J	0.00027 J	0.00023 J	< 0.0002	0.00045 J	0.0064	0.0042 J	0.00025 J	0.00031 J	0.00072 J	0.00067
SW846 6010C	Chromium	-	-	-	mg/L		0.0051	< 0.00097	< 0.00097	< 0.00097	< 0.00097	< 0.00097	< 0.00097	< 0.00097	< 0.00097	< 0.00097	< 0.00061	< 0.00061	< 0.00061	0.054	0.0072	0.0016 J	< 0.00061	0.0029 J	0.0028
SW846 6010C	Copper	0.61	1.28	1.6	mg/L		0.012 J	0.005 J	0.0057 J	0.006 J	0.0072 J	0.0046 J	0.0054 J, B	0.0056 J	0.0039 J	0.0048 J	0.0051 J	0.52	0.33	0.69	0.32	0.019 J	0.01 J	0.033	0.041
SW846 6010C	Iron	-	-	-	mg/L		4	0.047 J	0.047 J	0.12	0.038 J	0.05 J	0.077 J	0.18	0.065 J	0.065 J, B	0.093 J	0.27	0.15	20	7.5	0.42	0.093 J	1.4	1
SW846 6010C	Lead	0.09	0.1	0.13	mg/L		0.0091 J	< 0.0021	< 0.0021	< 0.0021	< 0.0021	< 0.0021	< 0.0021	< 0.0021	< 0.0021	< 0.0021	< 0.0031	< 0.0031	< 0.0031	0.059	0.027	< 0.0031	< 0.0031	0.0053 J	0.006
SW846 6010C	Manganesé	-	-	-	mg/L		0.056	0.0081 J	0.0029 J	0.015	0.0039 J	0.0046 J	0.0039 J	0.0086 J	0.008 J	0.0097 J	0.072	0.061	0.04	0.29	0.17	0.018	0.043	0.21	0.057
SW846 6010C	Nickel	-	-	-	mg/L		0.006 J	< 0.00089	0.00089 J	0.00094 J	0.0012 J	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.0032	< 0.0032	< 0.0032	0.023 J	0.011 J	< 0.0032	< 0.0032	< 0.0032	< 0.0032
SW846 6010C	Selenium	-	-	-	mg/L		< 0.0025	< 0.0025	< 0.0025	< 0.0025	0.0026 J, B	< 0.0025	< 0.0025	< 0.0025	< 0.0025	0.0028 J	< 0.0038	< 0.0038	< 0.0038	< 0.0038	< 0.0038	0.0057 J	< 0.0038	0.0043	
SW846 6010C	Thallium	-	-	-	mg/L		< 0.0014	0.0021 J, B	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	0.0015 J	< 0.0014	< 0.0014	< 0.0026	< 0.0026	< 0.0026	< 0.0026	< 0.0026	< 0.0026	< 0.0026	< 0.0026	< 0.0026
SW846 6010C	Zinc	0.42	1.02	1.3	mg/L		0.084	0.018 J	0.021	0.044	0.017 J	0.018 J	0.017 J	0.028	0.01 J	0.015 J	0.023	0.027	0.018 J	0.52	0.32	0.016 J	0.014 J, B	0.053	0.055
SW846 7470A	Mercury	-	-	-	mg/L		0.00014 J	< 0.000052	0.000061 J	< 0.000052	0.000056 J	ND	< 0.000052	0.000052 J	< 0.000052	< 0.000052	< 0.000052	0.000053 J	0.000065 J	0.00097	0.00063	< 0.000052	< 0.000052	0.00013 J, B	0.00018
SW846 9040C	pH	6 - 9	-	-	pH Units		8.32	6.47										8.6		8.02		8.76		8.63	-

J = estimated value

J, B = estimated value, results detected in method blank