Shell Chemical Appalachia LLC
300 Frankfort Road
Monaca, PA 15061

February 5, 2025

Timothy Smolar
Water Quality
PA Department of Environmental Protection
Southwest Regional Office
400 Waterfront Drive
Pittsburgh, PA 15222

RE: NPDES Permit PA0002208 - Corrective Action Plan for Outfall 019 Total Suspended Solids Benchmark Value Exceedance

Shell Chemical Appalachia LLC
Beaver County, Pennsylvania

Dear Mr. Smolar:

As required in Part C, Ill, F 6. Stormwater Monitoring Requirements of the Shell's NPDES Permit, attached is a Corrective Action Plan (CAP) for Outfall 019 due to an exceedance in two consecutive monitoring periods of the Benchmark Value for Total Suspend Solids (TSS). The CAP was prepared by GHD on behalf of Shell Chemical Appalachia LLC (Shell) in Potter Township, Beaver County, Pennsylvania.

The permit benchmark for TSS concentration is 100 mg/L.

Shell results for the most recent sample events:

- April 2, 2024 — TSS concentration of 150 mg/L
- August 1, 2024 — TSS concentration of 560 mg/L

The purpose of the CAP is to implement mitigations for the concentration of TSS by implementing additional engineering controls and improved Best Management Practices for Outfall 019.

If you have any questions or require additional information, please me at Kimberly.kaal@shell.com.

Sincerely,

Kimberly Kaal
Environmental Manager, Attorney-in-Fact

Attachments:
Corrective Action Plan

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Gamma Building Suite 201
Allison Park
United States
www.ghd.com

Our ref: 12561325 - Corrective Action Plan Outfall 019- NPDES

January 31, 2025

Kimberly Kaal, P.G.
Environmental Manager
Shell Chemical Appalachia LLC
300 Frankfort Road
Monaca, Pennsylvania 15061

Sent via Email

Corrective Action Plan – National Pollutant Discharge Elimination System Permit No.: PA0002208 – Outfall 019 – Shell Chemical Appalachia, LLC.

Dear Ms. Kaal:

1. Introduction

GHD Services Inc. (GHD) has prepared this Corrective Action Plan (CAP) for Shell Chemical Appalachia LLC. (Shell) at the Shell Polymers Monaca site (Site). The Site operates in accordance with a Pennsylvania Department of Environmental Protection (PADEP) National Pollutant Discharge Elimination System (NPDES) permit (PA0002208) (Permit) which includes stormwater discharge.

In accordance with the Permit, Section III, Item F (Stormwater Monitoring Requirements), Number 6 (page 58), in the event that stormwater discharge concentrations for a parameter exceeds the benchmark values identified in the Permit at the same outfall for two or more consecutive monitoring periods, the permittee shall develop a CAP to reduce the concentrations of the parameters in stormwater discharges. The permittee shall submit the CAP to PADEP within 90 days of the end of the monitoring period triggering the need for the plan and shall implement the plan immediately upon submission or at a later time if authorized by PADEP in writing.

Specifically, this CAP proposes engineering control measures and additional best management practices (BMP) to mitigate concentrations of total suspended solids (TSS) in stormwater discharging through Outfall 019.

2. Stormwater Outfall 019 Analytical Results

Outfall 019 discharges stormwater held in settling Pond A. Water is received to the pond from the upper and lower parking lots immediately adjacent to the pond and discharged through a manual valve-controlled drainage box. Photographs of Outfall 019 are included in Attachment 1. The pond discharge leads down to rip rap that has been installed to mitigate erosion, dissipate flow and reduce suspended solids in stormwater, before discharging.

In accordance with the Permit, Outfall 019 is sampled once every 6 months. The laboratory data has reported exceedances of the Permit Benchmark Value for TSS of 100 milligrams per liter (mg/L) as follows:

– April 2, 2024 – TSS concentration of 150 mg/L
– August 1, 2024 – TSS concentration of 560 mg/L

The laboratory data has been reported to PADEP in the respective Discharge Monitoring Reports (DMRs).

3. Corrective Action Plan

The Permit requires monitoring and reporting only for TSS. However, when benchmark values are exceeded, the permittee shall, in developing the CAP evaluate alternatives to reduce stormwater concentrations and select one or more BMPs or control measures for implementation, unless the permittee can demonstrate in the plan that:

1. the exceedances are solely attributable to natural background sources.
2. no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice.
3. further pollutant reductions are not necessary to prevent stormwater discharges from causing or contributing to an exceedance of applicable water quality standards.

The permittee shall minimize erosion and pollutant discharges by stabilizing exposed soils and placing flow velocity dissipation devices at discharge locations to minimize channel and stream bank erosion and scour in the immediate vicinity of stormwater outfalls.

To reduce measured TSS in Outfall 019, Shell will implement the following corrective actions and monitoring measures to settling Pond A of Outfall 019:

1. Shell will clean out vegetation, sediment and debris to the extent practical, especially within the bottom of the drainage box. These practices will be maintained as needed.
2. A rehabilitation of the Outfall 019 settling pond (Pond A) to increase effective capacity of the pond as well as increase retention time of stormwater to allow for appropriate settling of suspended solids.
    a. Rehabilitation shall include dredging of the pond bottom to as-builts depths (approximate or deeper) in order remove excess sediment that has accumulated through use and increase volume capacity and retention time.
    b. Rehabilitation shall also include the removal of any excess vegetation (cat tails, weeds, dead organic material) that is currently present within the pond.
3. Installation of BMP's (silt-filtering booms) around all run-off locations leading to Pond A, including the parking lots and roadways upgradient of the Pond.
    a. Additional installation of BMP's around all runoff inlets into Pond A.
4. Outfall 019 will be sampled quarterly for laboratory analysis for TSS for one year.

Through routine observations and quarterly sampling, if the desired TSS results are not observed, additional contingency steps may be taken to aid in achieving lower results, if practicable:

5. Stormwater silt filtration socks may be installed as baffles (perpendicular to flow) secured with stakes/rebar or other means within the drainage swale, and immediately before the inlet culvert for Outfall 019.
6. Additional installation of BMPs along the drainage rip-rap adjacent to the pond may be installed to mitigate suspended solids.

4. Schedule

Shell will implement this CAP in the first or early second quarter 2025. Quarterly stormwater monitoring for TSS will be initiated, with further BMP controls as needed. The data will be reported in the DMRs for Outfall 019.

5. Closing

Thank you for this opportunity to assist Shell. Please contact the undersigned if you have any questions or require additional information.

Respectfully submitted,

Daniel P. Cusick, P.G., LRS
Project Director

Brenden Arbaugh
Project Manager

Encl.

Attachment 1 – Photographs of Outfall 019

Attachments

Attachment 1

Photographs of Outfall 019

Photo 1 – Valve-controlled drainage box

Photo 2 – Settling Pond A

Photo 3 – Pond A and view of upper lots

Photo 4 – Pond A vegetation overgrowth