Shell Chemical Appalachia LLC 300 Frankfort Road Monaca, PA 15061

November 21, 2024

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 016 Total Suspended Solids Benchmark Value Exceedance

Shell Chemical Appalachia LLC Beaver County, Pennsylvania

Dear Mr. Smolar:

As required in Part C, III, F 6. Stormwater Monitoring Requirements of the Shell's NPDES Permit, attached is a Corrective Action Plan (CAP) for Outfall 016 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:

- March 3, 2023 TSS concentration of 1,100 mg/L
- November 17, 2023 TSS concentration of 990 mg/L
- May 17, 2024 TSS concentration of 1,500 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 016.

If you have any questions or require additional information, please contact Kimberly Kaal at <u>Kimberly.kaal@shell.com</u> or me at <u>nathan.levin@shell.com</u> or 724.709.2467.

Sincerely,

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Nathan Levin Operations Manager

Attachments: Corrective Action Plan 4068 Mt. Royal Blvd. Gamma Building Suite 201 Allison Park United States www.ghd.com



Our ref: 12561325 - Corrective Action Plan - NPDES

November 21, 2024

Mr. Jason Schultz Environmental Engineer – Waste and Water 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 016 – Shell Chemical Appalachia, LLC.

Dear Mr. Schultz:

#### 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 016.

#### 2. Stormwater Outfall 016 Analytical Results

Outfall 016 receives stormwater from the Site and property used by Duquesne Light Company (DLC) and a PA Department of Transportation (PADOT) as a right-of way and ultimately discharges to an unnamed tributary to the Ohio River. Photographs of Outfall 016 are included in Attachment 1. As shown in the photographs, Outfall 016 receives runoff from gravel surfaces from the DLC and PADOT property and has developed sediment buildup with vegetation within the drainage swale. Rip rap has been installed in an attempt to mitigate erosion, dissipate flow and reduce suspended solids in stormwater.

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In accordance with the Permit, Outfall 016 is sampled once every 6 months, if stormwater flow discharge. The laboratory data has reported exceedances of the Permit Benchmark Value for TSS of 100 milligrams per liter (mg/L) as follows:

- March 3, 2023 TSS concentration of 1,100 mg/L
- November 17, 2023 TSS concentration of 990 mg/L
- May 17, 2024 TSS concentration of 1,500 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.

In an attempt to reduce TSS accumulation and discharge in Outfall 016, Shell will implement the following engineering controls and BMPs for Outfall 016:

- 1. Shell will remove the existing booms in the drainage swale, clean out vegetation, sediment and debris to the extent practical, and add and/or adjust rip rap to minimize erosion. These practices will be maintained as needed.
- 2. Silt fence or silt socks will be installed between the gravel lot areas used by DLC and PADOT and adjacent to the Outfall 016 drainage swale.
- 3. Stormwater silt filtration socks will 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 016.
- 4. Outfall 016 will be visually monitored on a monthly basis, or more frequently if needed.
- 5. Outfall 016 will be sampled quarterly for laboratory analysis for TSS for one year. If TSS continues to exceed the benchmark value, additional options will be evaluated.

#### 4. Schedule

Shell will implement this CAP in the fourth quarter 2024. After the initial drainage swale engineering controls and BMPs are completed, quarterly stormwater monitoring for TSS will be initiated. The data will be reported in the DMRs for Outfall 016.

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#### 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,

P.L.ik S.F

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

Attachment 1 – Photographs of Outfall 016

Brenden Arbaugh

Brenden Arbaugh Project Manager



## Attachments



# Attachment 1

### **Photographs of Outfall 016**





Photograph 1 – drainage ditch leading to Outfall 016.



Photograph 2 – Vegetation growth in drainage ditch to Outfall 016.



Photograph 3 – Outfall 016 culvert and sample location.