



March 7, 2024

VIA ELECTRONIC MAIL ([Kimberly.Kaal@shell.com](mailto:Kimberly.Kaal@shell.com))

Ms. Kimberly Kaal, P.G.  
Environmental Manager, Attorney-in-Fact  
Shell Chemical Appalachia LLC  
300 Frankfort Road  
Monaca, PA 15061-2210

Re: Impingement and Entrainment (I&E) Sampling Plan  
Shell Polymers Monaca Site  
NPDES Permit PA0002208  
Potter Township, Beaver County

Dear Ms. Kaal:

The Department of Environmental Protection (DEP) reviewed Shell Chemical Appalachia LLC's revised I&E Characterization Study Sampling and Analysis Plan ("Revised Sampling Plan") submitted to DEP on February 9, 2024 pursuant to Part C, Condition XI.E of NPDES Permit PA0002208 and DEP's January 10, 2024 comment letter on the original Sampling Plan submitted on October 14, 2023.

DEP approves the Revised Sampling Plan with one recommendation with respect to the timing of peak entrainment data collection. Data available to DEP generally indicate that increased entrainment begins in May. However, one long-term dataset of ichthyoplankton concentrations in the Ohio River showed one year out of several had an increase in larval and egg density beginning in April. Depending on the timing of the Monaca Plant reaching normal operations and the length of time needed to complete the impingement efficiency study, DEP recommends that bi-weekly sampling begin no later than May 1, 2024, if not an earlier date between April 1, 2024 and April 30, 2024.

If you have any questions, please contact me at 412.442.4144 or [rydecker@pa.gov](mailto:rydecker@pa.gov).

Sincerely,

A handwritten signature in black ink that reads "Ryan C. Decker". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Ryan C. Decker, P.E.  
Environmental Engineer  
Clean Water Program

cc: William Watson, Operations Manager – Shell ([William.Watson@shell.com](mailto:William.Watson@shell.com))  
Jason Schultz, Environmental Engineer – Shell ([Jason.Schultz2@shell.com](mailto:Jason.Schultz2@shell.com))  
Martin Padila – Shell ([Martin.Padila@shell.com](mailto:Martin.Padila@shell.com))  
James Howell – Shell ([James.Howell@shell.com](mailto:James.Howell@shell.com))  
Joella Posey – AECOM ([joella.posey@aecom.com](mailto:joella.posey@aecom.com))  
Richard Spear, Aquatic Biologist Supervisor – DEP ([rspear@pa.gov](mailto:rspear@pa.gov))  
Mark Hoger, Water Program Specialist – DEP ([mhoger@pa.gov](mailto:mhoger@pa.gov))  
Michael Fifth, P.E., Environmental Engineer Manager – DEP ([mfifth@pa.gov](mailto:mfifth@pa.gov))  
Christopher Kriley, P.E., Environmental Program Manager – DEP ([ckriley@pa.gov](mailto:ckriley@pa.gov))  
Regional file (OnBase)