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October 3, 2023

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

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David Berkowitz
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RE: Notice of Clean Water Act Violations

Dear Mr. Ford and Mr. Berkowitz,

I write on behalf of PennEnvironment and Three Rivers Waterkeeper (collectively, the “Citizen Groups”). We respectfully request the opportunity to meet with you within 45 days to discuss resolution of the matters raised in this letter.

This letter is being provided pursuant to Section 505(b)(1) of the Clean Water Act, 33 U.S. Code § 1365(b)(1).

Publicly available information shows that BVPV Styrenics LLC (“BVPV Styrenics”), a wholly owned subsidiary of Styropek USA, Inc. (“Styropek”), discharges wastewater and stormwater into the Ohio River and into Raccoon Creek, a tributary to the Ohio River, from the facility it operates at 400 Frankfort Road in Monaca, Pennsylvania (“Styropek Facility”). The Styropek Facility manufactures expandable polystyrene (EPS) beads, often referred to as “nurdles,” for eventual incorporation into products such as food packaging and construction materials. The Facility is one of several owned by Styropek, which, along with its foreign affiliates, identifies itself as the “largest EPS producer in the American Continent.”

EPS nurdles have been observed – consistently and by multiple parties – in the process wastewater and stormwater discharged by the Styropek Facility, in Raccoon Creek, and in the

Ohio River. Based on these documented observations, the Citizen Groups believe that the Styropek Facility has violated, and will continue to violate, the federal Clean Water Act and its state-issued wastewater discharge permit. These violations are the responsibility of BVPV Styrenics and, to the extent that it exerts control over the Styropek Facility, Styropek itself. The Citizen Groups intend to file suit to enforce the permit, as described below.

Violations of the Statutory Prohibition Against Unpermitted Discharges

Dischargers of pollutants to surface waters must comply with permits issued under the National Pollutant Discharge Elimination System (“NPDES”) of the Clean Water Act. In Pennsylvania, the NPDES program is administered by the Pennsylvania Department of Environmental Protection (“DEP”). The NPDES permit governing the Styropek Facility is Pennsylvania DEP Permit No. PA0006254 A-3 (“Styropek Permit”). The discharge of pollutants not specifically authorized by an NPDES permit is prohibited under Section 301(a) of the Clean Water Act, 33 U.S.C. § 1311(a).

The Styropek Permit does not authorize the discharge of nurdles, which are pollutants because they are discarded and are chemical, solid, and industrial waste. *See* 33 U.S.C. § 1362 (definition of “pollutant”). Each discharge of nurdles from the various outfalls at the Styropek Facility, as described below, is therefore a violation of the Clean Water Act. For the reasons described below, the Citizen Groups believe such prohibited discharges occur every day the Styropek Facility operates. This notice covers all violations of this prohibition that occurred within the five years immediately preceding the date of this notice, and all such violations occurring thereafter.

Violations of the Styropek NPDES Permit

The discharge of pollutants in violation of an NPDES permit requirement is prohibited under Section 301(a) of the Clean Water Act, 33 U.S.C. § 1311(a). The “Additional Requirements” section of the Styropek Permit, at p. 19, prohibits the Styropek Facility from discharging the following:

- “floating solids, scum, sheen or substances that result in observed deposits in the receiving water,” at Section A(1); and
- “substances in concentration or amounts sufficient to be inimical or harmful to the water uses to be protected or to human, animal, plant or aquatic life,” at Section A(3).

Permit Violations at Outfall 002

According to the Styropek Permit, the Facility is designed to discharge a maximum of 1.543 million gallons of wastewater per day from its wastewater treatment plant into Raccoon Creek through a discharge point known as Outfall 002. Discharge Monitoring Reports submitted by BVPV Styrenics to Pennsylvania DEP over the past five years confirm that the Styropek

Facility typically discharges at or near this design flow. The wastewater discharged from Outfall 002 into Raccoon Creek includes the treated process wastewater from the Styropek Facility's polystyrene and specialty plastics production.

Based in part on physical surveys begun in September 2022, the Citizen Groups believe that the Styropek Facility routinely discharges significant quantities of nurdles through Outfall 002 into Raccoon Creek. Publicly available information, including Pennsylvania DEP Inspection Reports and statements by BVPV Styrenics personnel, supplemented by dated observations, photographs, and samples gathered by staff and members of Three Rivers Waterkeeper during monthly "nurdle patrols" of Raccoon Creek, all indicate that such releases occur on a daily basis. Each of these discharges is a violation of both Section A(1) and Section A(3) of the "Additional Requirements" section of the Styropek Permit (as set forth above).

The nurdles are "floating solids" and "substances that result in observed deposits in the receiving waters" within the meaning of Section A(1). This has been confirmed by all of the observers listed above. Participants in the Three Rivers Waterkeeper nurdle patrols have observed nurdles literally "bubbling up" to the surface of Raccoon Creek from Outfall 002, where they then float along the surface of the creek and collect in sediments, on the creek banks, and on bordering vegetation as observed deposits.

Three Rivers Waterkeeper staff and members have also observed and documented the accumulation of nurdles released from the Styropek Facility in sufficient concentrations "to be inimical or harmful to the water uses to be protected or to human, animal, plant or aquatic life," in Raccoon Creek and downstream in the Ohio River, including throughout the sediment near Outfall 002, in violation of Section A(3). The ability of tiny, lightweight nurdles to make their way into aquatic environments through drains and watercourses is well understood.¹ Even if composed of purportedly non-toxic materials, nurdles act as "toxic sponges," attracting hydrophobic chemical toxins and transporting them throughout aquatic environments.² Hundreds of fish species are known to ingest such plastics in marine settings.³ Microplastics ingested by fish can enter the food chain of humans and other animals.⁴ The nurdles released by the Styropek Facility pose similar risks to life in and around Raccoon Creek and the Ohio River.

Evidence establishing the Styropek Facility's ongoing violations of these requirements at Outfall 002 is summarized in **Table 1**. The discharge of nurdles from Outfall 002 has been detected during all but one of the Three Rivers Waterkeeper nurdle patrols since the group began

¹ See, e.g., FIDRA, Study to quantify plastic pellet loss in the UK (Report Briefing) (https://www.nurdlehunt.org.uk/images/Leaflets/Report_briefing.pdf)

² Mato, et al. (2000). Resin Pellets as a Transport Medium for Toxic Chemicals in the Environment, *Environmental Science & Technology* 35(2), 318-324. (<https://pubs.acs.org/doi/abs/10.1021/es0010498>)

³ Savoca, et al. (2021). Plastic ingestion by marine fish is widespread and increasing. *Global Change Biology*, 27(10), 2188-2199. (<https://onlinelibrary.wiley.com/doi/10.1111/gcb.15533>)

⁴ United Nations Environment Programme (2018). Single-Use Plastics: A Roadmap for Sustainability (Rev. ed., Chapter 2, p. 14) (unep.org/resources/report/single-use-plastics-roadmap-sustainability)

conducting such patrols near the Styropek Facility on September 6, 2022. Further, Pennsylvania DEP and BVPV Styrenics have each independently detected the discharge of nurdles from Outfall 002, including within a few days of the one outing (December 6, 2022) on which the Three Rivers Waterkeeper nurdle patrol failed to detect the discharge of nurdles. When paired with the Facility's daily production of nurdles and associated daily discharge of process wastewater and the magnitude of nurdle deposits in and around Raccoon Creek, including in the soil and sediment, these observations strongly support the conclusion that nurdles are discharged from Outfall 002 on a daily basis. Accordingly, the Citizen Groups believe, and therefore allege, that the Styropek Facility has violated Permit Sections A(1) and A(3) at Outfall 002 every day for the five years preceding this notice, and that these violations will continue on each day following the date of this notice.

Permit Violations at Outfalls 020, 021, and 025

According to the Pennsylvania DEP Fact Sheet for the Styropek Permit, the Styropek Facility also discharges variable amounts of stormwater into Raccoon Creek through three stormwater runoff discharge points located on site. These points are designated as Outfalls 020, 021, and 025. The Fact Sheet indicates that discharges from these Outfalls enter Raccoon Creek upstream of Outfall 002, meaning they flow towards Outfall 002 and then into the Ohio River.

Pennsylvania DEP Inspection Reports from December 2022 and January 2023 identify loose nurdles at numerous locations, including on pavement and "throughout the soil" near Stormwater Outfall 025 (December 2022), and on the road, in gravel areas, and "visible in the soil at the stormwater outfalls" (January 2023). The Facility's stormwater system is directly connected to each of these locations. Available evidence therefore indicates that Styropek Permit Sections A(1) and A(3) are violated at Outfalls 020, 021, and 025 on each occasion that rainfall results in a stormwater system discharge. The precise dates of stormwater events and on-site spills at the Styropek Facility (such as the documented spill that occurred on October 19, 2021) can be found in the company's records.

Each day on which nurdles are released from Outfall 002, 020, 021, or 025 constitutes two days of violation of the Styropek Permit, one for the violation of Section A(1) and one for the violation of Section A(3). This notice covers all similar violations of these permit requirements that occurred within the five years immediately preceding the date of this notice, and all similar violations occurring thereafter.

The Citizen Groups seek to improve the water quality of Raccoon Creek and the Ohio River by securing the Styropek Facility's long-term compliance with applicable law, and would welcome the opportunity to discuss this letter and the violations described herein. If you are interested in discussing this matter, and/or if you believe any of the information in this letter or in the attached table is incorrect, please contact me by email at mtonohue@nelc.org, by phone at 603-512-5897 (cell), or by letter at the address listed below.

Sincerely,



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TABLE 1: Evidence of Violations of NPDES Permit Sections A(1) and A(3) at Outfall 002

Date	Source	Findings
9/6/22	<p>3RWK / MWA - Nurdle Patrol</p> <p>Unless otherwise indicated, each Nurdle Patrol was led by Captain Evan Clark (Three Rivers Waterkeeper) and James Cato (Mountain Watershed Association).</p> <p>Nurdle Patrols involve visual analyses, supplemented by the collection of nurdle samples and photographs, as noted.</p> <p>"Net Samples" are collected from the water's surface using a 300 micron net.</p>	<p>Various types of unique nurdles observed during patrol of Ohio River in the vicinity of Raccoon Creek.</p> <p>Net Sample collected.</p>
9/20/22	3RWK / MWA - Nurdle Patrol	<p>Various types of unique nurdles again observed during patrol of Ohio River in the vicinity of Raccoon Creek.</p> <p>Net Sample collected.</p>
10/3/22	<p>3RWK / MWA - Nurdle Patrol</p> <p>For this and all subsequent nurdle patrols of Raccoon Creek, the following procedure was utilized: Over an approximately 10-minute period, a boat drags the net from the mouth of Raccoon Creek, upstream beyond Outfall 002, then turns around and completes several passes in the immediate vicinity of Outfall 002. Gathered material is passed through a series of sieves. Nurdles are isolated and then stored in glass containers by 3RWK Staff.</p>	<p>Patrol tracked the various types of unique nurdles into Raccoon Creek, with concentration of nurdles increasing approaching Outfall 002, including on vegetation.</p>

10/12/22	3RWK / MWA - Nurdle Patrol (also attended by Eric Harder of Mountain Watershed Association)	<p>Various types of unique nurdles observed drifting in Raccon Creek in immediate vicinity of Outfall 002. These nurdles are confirmed to be emerging from Outfall 002. Similar nurdles observed coating vegetation at the high water mark in Raccoon Creek.</p> <p>Note: all references to "nurdles" in subsequent entries include the various types of unique nurdles first identified on 9/6/2022 and subsequently traced to the Styropek Facility.</p> <p>Net Sample collected.</p>
10/27/22	3RWK / MWA - Nurdle Patrol	<p>Nurdles observed drifting in Raccon Creek in immediate vicinity of Outfall 002.</p> <p>Net Sample collected.</p>
12/6/22	3RWK / MWA - Nurdle Patrol	<p>Nurdles are not observed drifting in Raccon Creek in immediate vicinity of Outfall 002.</p>
12/13/22	PA DEP	<p><u>Boat Survey</u> Per General Inspection Report on 12/21/2022 (below), PA DEP personnel conducted a boat survey of several locations at the Styropek Facility. Nurdles were identified on 12/13/22 in areas adjacent to Outfall 002.</p> <p>Note: Nurdles also found "throughout the soil" near Stormwater Outfall 025.</p>
12/14/22	BVPV Styrenics	<p><u>Environmental Consultant</u> In correspondence to PADEP, BPVP Styrenics confirms it hired an Environmental Consultant to "assist in the verification of the allegation of the discharge of plastics, and if found, to identify causes and potential corrective actions associated with this condition."</p> <p>During initial site visit conducted on December 14-15, 2022, BVPV Styrenics "identified the presence of plastic beads along a portion of Raccoon Creek, consistent with PADEP and Three Rivers Waterkeeper observations. Some of the plastic beads observed appear to be consistent with the size and nature of the material we manufacture and process...In addition, we wish to inform you that plastic beads were also observed in stormwater effluent contributing to Raccoon Creek as observed during our routine stormwater sampling event conducted on December 15, 2022."</p>

12/21/22	PA DEP	<p><u>General Inspection Report</u> PA DEP personnel identified nurdles near Outfall 002.</p> <p>Note: Visible nurdles also uncovered in the area near Stormwater Outfall 025, "can be seen throughout the soil" removed during excavation to install a catch basin.</p>
1/10/22	3RWK / MWA - Nurdle Patrol	<p>Nurdles observed drifting in Racon Creek in immediate vicinity of Outfall 002.</p> <p>Net Sample collected.</p>
1/17/23	PA DEP	<p><u>General Inspection Report</u> PA DEP personnel identified nurdles near Outfall 002.</p> <p>Note: Nurdles also "visible in the soil" at Stormwater Outfalls 021 and 025. Additional visible nurdles on the road and gravel areas are marked with "orange cone system" (i.e., traffic cones) for cleanup.</p>
2/8/23	3RWK / MWA - Nurdle Patrol (not attended by James Cato)	<p>Nurdles observed drifting in Racon Creek in immediate vicinity of Outfall 002.</p> <p>Net Sample collected.</p>
3/2/23	3RWK / MWA - Nurdle Patrol	<p>Nurdles observed drifting in Racon Creek in immediate vicinity of Outfall 002.</p> <p>Net Sample collected.</p>
4/10/23	3RWK / MWA - Nurdle Patrol	<p>Nurdles observed drifting in Racon Creek in immediate vicinity of Outfall 002.</p> <p>Net Sample collected.</p>
5/11/23	3RWK / MWA - Nurdle Patrol	<p>Nurdles observed drifting in Racon Creek in immediate vicinity of Outfall 002.</p> <p>Net Sample collected.</p>
6/21/23	3RWK / MWA - Nurdle Patrol	<p>Nurdles observed drifting in Racon Creek in immediate vicinity of Outfall 002. Significant quantities observed downstream of Outfall 002 all the way to the mouth of Raccoon Creek into the Ohio River.</p> <p>Net Sample collected.</p>
7/17/23	3RWK / MWA - Nurdle Patrol (not attended by James Cato)	<p>Nurdles observed drifting in Racon Creek in immediate vicinity of Outfall 002.</p> <p>Net Sample collected.</p>

8/2/23	3RWK / MWA - Nurdle Patrol	<p>Nurdles observed drifting in Racon Creek in immediate vicinity of Outfall 002.</p> <p>Net Sample collected.</p> <p>Sediment Sample collected.</p> <p>Approximately one gallon of mud/debris/water collected from creek bed within 10 feet of Outfall 002. Allowed to settle. Salt added to separate nurdles from the sediment, floating hundreds of nurdles in the sample.</p> <p>A selection of these floating nurdles was skimmed, rinsed and photographed.</p>
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