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July 25, 2023

Via Electronic Mail [landon.davidson@deq.nc.gov]

G. Landon Davidson
Asheville Regional Supervisor, Water Quality Regional Operations
NC DEQ – Division of Water Resources
2090 U.S. Highway 70
Swannanoa, NC 28778

RE: Notice of Violation and Notice of Intent to Enforce

NPDES Permit: NC0000272 Incident No. 202300938 Evergreen Packaging – Canton Mill NOV-2023-DV-0280 Haywood County, NC

Dear Mr. Davidson:

Blue Ridge Paper Products LLC d/b/a Evergreen Packaging ("Blue Ridge Paper") is providing this letter in response to the above-referenced Notice of Violation ("NOV") issued by the North Carolina Department of Environmental Quality, Division of Water Resources' ("DWR") on July 11, 2023, and received by certified mail on July 17, 2023.

Blue Ridge Paper is committed to operating safely and responsibly across our organization, including meeting our environment obligations at our Canton Mill ("Mill") site.

Blue Ridge Paper has confirmed that it discharged a cleaning solution containing 10-15% sodium hydroxide (the "Cleaning Solution") and a sanitizer containing 12.5-15.6% hypochlorite (the "Sanitizer") to the Mill's wastewater treatment plant (the "WWTP") during the shutdown. As detailed further below, Blue Ridge Paper believes that neither the discharge of the Cleaning Solution nor the Sanitizer resulted in the violation of water quality standards in the NPDES permit.

Blue Ridge Paper acted on a good faith belief that the discharge of these materials, both of which were discharged to and treated at the WWTP during normal operations at the Mill, was authorized by the NPDES permit during the shutdown of the Mill, just as liquors and other process chemicals that were typically treated at the Mill's WWTP were discharged to and treated at the WWTP during the shutdown. Indeed, Blue Ridge Paper responded to DWR's initial inquiry regarding the discharge of sodium hydroxide ("NaOH" or "caustic"), describing the

discharge of the Cleaning Solution and DWR responded at the time that it had no further questions regarding the activity. <u>More than 24-hours later</u>, DWR provided a second response indicating that the agency believed the discharge of materials "prior to or absent their use in an industrial process" was not authorized by the NPDES permit.

Importantly, the discharge of the Cleaning Solution and Sanitizer to the WWTP during the shutdown, both of which were properly discharged to and treated at the WWTP when used in the normal operation of the Mill, did not harm the beneficial bacteria or upset the aerobic treatment processes at the WWTP, and the WWTP complied with the effluent limits in its NPDES permit when the Cleaning Solution and Sanitizer were discharged to and treated at the WWTP.

Description of Materials Discharged to the WWTP

The Cleaning Solution

During the normal operation of the Mill, Blue Ridge Paper used the Cleaning Solution, containing 10-15% NaOH (brand name PresstigeTM FB9050 Felt wash and conditioning agent) to clean clothing (felts, etc.) on the paper machines. When the paper machines were shut down, there were three open, in-use totes of the Cleaning Solution remaining at the Mill. Two of the paper machines had dedicated totes, and the remaining two paper machines shared a tote.

These totes were movable so that the Cleaning Solution could be applied to the clothing on different areas of the paper machines. The Cleaning Solution would then be rinsed off and drained to the Mill's sewer system, removing particulate matter or other materials that could impact the quality of the paper or upset the papermaking process. Importantly, during normal operations prior to the shutdown, the cleaning solution was drained to the Mill's sewer system and the WWTP, where it would be treated in accordance with the NPDES permit.

The Cleaning Solution was supplied to Blue Ridge Paper in 300-gallon totes. Upon the shutdown of the paper machines and following the final cleaning of all paper machine clothing, six <u>unopened</u> totes of the cleaning solution (which Blue Ridge Paper considered to be raw, unused or virgin materials) were returned to the vendor. The three open, partially empty totes (which Blue Ridge Paper considered to be in use and which the vendors would not accept for return) were discharged to the WWTP for treatment by removing the pump assemblies and allowing the totes to flow into the Mill's sewer. Once drained, the totes were triple rinsed with water and returned to the vendor.

We estimate that a total of between 300 and 600 gallons of the cleaning solution were discharged from the three open, partially empty totes to the WWTP. To put that quantity in context, the total volume of wastewater being treated at the WWTP was more than 18 million gallons per day (MGD) at this time (*i.e.*, the last week of May and first week of June).

Importantly, the Mill has a rigorous Best Management Practices (BMP) program in place to monitor wastewater incoming to the WWTP, including the detection of unexpected spikes in pH. These BMPs, among other things, help the Mill identify unanticipated releases to the WWTP and enable the operators of the WWTP to work with Mill operations to identify and address the issue, make adjustments at the WWTP to manage challenges created by incoming wastewater, avoid harming the beneficial bacteria or otherwise upset the aerobic treatment process, and maintain compliance with the water quality standards in the WWTP. The WWTP also has a neutralization process to reduce spikes in pH that could result from increased concentrations of NaOH or of other basic solutions in the wastewater. Any such spike would generally be associated with black liquor, which typically contains about 50% NaOH, or five times higher than the 10% NaOH concentration of the Cleaning Solution. During the discharge of the Cleaning Solution in late May and early June, the WWTP was closely monitoring the influent to the WWTP, which contained higher than normal discharges of black liquor from the digesters, tanks, and other vessels and process equipment at the Mill, and neutralizing associated increases in pH before the wastewater could impact the health of the beneficial bacteria at the WWTP. The WWTP did not observe any spikes in pH beyond the anticipated spikes associated with the black liquor discharges. Further, the WWTP complied with all monitored parameters during this period, and no violation of water quality standards was detected.

The Sanitizer

During the normal operation of the Mill, Blue Ridge Paper used the Sanitizer, containing 12.5-15.6% sodium hypochlorite ("NaOCl") (brand name SunnySol® 150 sodium hypochlorite solution or bleach) to disinfect water at the Hill Filter Plant for use in the Mill, and also to treat stock at the paper machines.² Without such disinfection, unwanted bacterial growth in the water used at the Mill could adversely impact operations, and could also proliferate on the paper itself and ruin the product. During the normal operations of the Mill, water treated with the Sanitizer, as well as excess Sanitizer from the treatment of the paper stock, was ultimately drained to and treated at the WWTP. We note, however, that NaOCl (the active ingredient in the Sanitizer) reacts with and is consumed by organic matter, and so any NaOCl in the Cleaning Solution is likely consumed by organic material in the water treatment process and in the sewer system before it reaches the WWTP.

Upon shutdown, approximately 6,028 gallons of Sanitizer remained in a single, 8,550-gallon capacity tank that was used to provide Sanitizer to the Hill Filter Plant and the No. 19 paper machine during the normal operation of the Mill. These 6,028 gallons of Sanitizer were slowly drained to the Mill's sewer system and WWTP over an approximate 24-hour period, beginning around 10:00 a.m. on May 30, and ending around 10:00 a.m. on the following morning. To put that quantity into context, on May 30 and 31 the total volume of wastewater being treated at the

¹ Neutralization of high or low pH material and discharge to a waste treatment plant is a practice common in industry recognized and approved in EPA's domestic sewage exclusion. *See* U.S. EPA, *Little Known but Allowable Ways to Deal with Hazardous Waste*, Doc. No. EPA 233-B-00-002, May 2000.

² We note that the Sanitizer is also used by other industries to sanitize drinking water, disinfect water in swimming pools, and treat wastewater. Further, sodium hypochlorite (NaOCl) is contained in household bleach at concentrations around 7.5%.

WWTP was 21.2 MGD and 18.6 MGD, respectfully. Even if the NaOCl was not consumed by reacting with organic material in the sewer (which we believe that it was), the resulting concentration of NaOCl in the wastewater treated at the WWTP would be less than 0.01%. This concentration of NaOCl, which we note is commonly used to treat undesirable pathogens in sewage and wastewater treatment operations, would have no adverse impact on the beneficial bacterial at the WWTP. Once emptied, the Sanitizer tank was cleaned by twice filling and flushing the tank with water, which is standard practice when emptying vessels and tanks.

Before the NaOCl contained in the Sanitizer reacts with organic material and is consumed, the Sanitizer is a basic solution and the WWTP would likely see a spike in the pH of the influent wastewater if it was being released from the Mill in concentrations that would damage the WWTP. The WWTP did not see any spikes in pH attributable to the discharge of Sanitizer on May 30 or the days following. Based on the slow discharge rate of the 12.6-15.6% NaOCl solution to the sewer and the high concentrations of organic material in the sewer at this time (as liquors from the pulp mill and recovery process were also being routed to the WWTP for treatment), we strongly believe that any NaOCl in the Sanitizer would have been fully consumed in the sewer before reaching the WWTP. If any NaOCl did reach the WWTP, any associated spike in pH was addressed by the WWTP's neutralization process. In any case, there was no damage to the beneficial bacteria in the WWTP during this period, and no violation of water quality standards was detected.

Blue Ridge Paper is not aware of any raw, unused, or virgin materials that were discharged by third-party contractors during the shutdown.

<u>Blue Ridge Paper's Good Faith Belief that the Discharge of the Cleaning Solution and</u> Sanitizer Was Authorized Under the NPDES Permit

Blue Ridge Paper had a good faith belief that it was authorized to discharge the Cleaning Solution in remaining open totes and the Sanitizer in a single tank upon shutdown to the Mill's WWTP during the shutdown process, just as it was authorized to discharge liquors and other process chemicals remaining in shutdown process vessels and tanks to the WWTP. Blue Ridge Paper considered both the Cleaning Solution and the Sanitizer to be process chemicals remaining at the Mill following the shutdown of the paper machines, analogous to remaining black liquor following the shutdown of the pulping and recovery processes.

Blue Ridge Paper's belief that the discharge of the materials to the WWTP was proper and authorized by the Mill's NPDES permit is supported by our communications with DWR regarding this matter. On the morning of Tuesday, June 6, Blue Ridge Paper received an email inquiry from DWR requesting additional information regarding a complaint received concerning the discharge of sodium hydroxide to the WWTP. ³

³ By way of clarification, DWR's email only requested information about the discharge of NaOH, and Blue Ridge Paper's response was limited to information about the Cleaning Solution. On the June 9 call, DWR also noted that the complaint identified the discharge of *calcium* hypochlorite. Blue Ridge Paper confirmed to DWR during this call that

Blue Ridge Paper responded to DWR's inquiry less than an hour later at 10:25 a.m. confirming that the material was the Cleaning Solution. Blue Ridge Paper noted that the Cleaning Solution was used at the Mill to clean felts and other fabrics on the paper machines, and further responded that:

- Materials with far higher NaOH concentrations, such as black liquor with up to 50% NaOH, were commonly routed to and treated at the WWTP;
- The Mill had procedures in place to neutralize caustic in treated wastewaters and to avoid upsets at the WWTP;
- No unexpected spikes in the pH of influent from the Mill to the WWTP had resulted from the discharge of the Cleaning Solution to the Mill's sewer system; and
- The Mill would continue to monitor the pH of influent from the Mill in accordance with its BMP plan so that it could identify and address any unexpected spikes in pH that might occur during the shutdown and maintain compliance with the NPDES permit.

BRPP's response concluded: "In sum, the concentrations and volume of the NaOH solution that were identified in this [complaint] are not expected to result in any upset conditions or deviation with the WWTP's permit and can be managed at the WWTP in accordance with their normal operating procedures." Within five minutes of submitting this response, Blue Ridge Paper received DWR's reply indicating: "Thank you for your response. I've no further comments or questions at this time."

More than 24 hours later, on the afternoon of Wednesday, June 7, the Mill received a follow-up email from DWR noting that the discharge "could be a violation of [the Mill's] NPDES permit." Blue Ridge Paper responded the same afternoon that it would no longer discharge materials from totes until we could schedule a time to discuss the matter and confirm that the Cleaning Solution was being properly managed.

As indicated in the NOV, DWR and Blue Ridge Paper had a follow-up call regarding the discharge of the Cleaning Solution to the WWTP on Friday, June 9, at which time Blue Ridge Paper explained its belief that such activity was authorized by the NPDES permit because the Cleaning Solution was an *in use* process chemical, the Cleaning Solution was typically routed to and treated at the WWTP during normal operations at the Mill, the WWTP includes processes to neutralize pH and treat the material, and the discharge of the remaining Cleaning Solution from the open, in use totes was part of the shutdown and analogous to the discharge of remaining liquors contained in process vessels and tanks throughout the Mill. DWR responded on the call that it did not agree with Blue Ridge Paper, and that DWR considers material in an open, partially empty tote

the Cleaning Solution does not contain calcium hypochlorite (which is a solid material), and that we were not aware of any discharge of calcium hypochlorite to the WWTP.

The NOV also indicates that the complaint received by DWR alleged that the Mill was disposing of "a sodium hydroxide solution and calcium hypochlorite" directly to the WWTP. Blue Ridge Paper responds that it still is not aware of the discharge of any calcium hypochlorite (a solid) to the WWTP, but it has confirmed that Sanitizer containing up to 15.6% <u>sodium</u> hypochlorite was discharged to and treated at the WWTP as described in this response.

to be raw, unused, or virgin material that cannot be properly discharged to the WWTP under the Mill's NPDES permit.

While Blue Ridge Paper continues to believe that the discharge of both the Cleaning Solution remaining in open, partially emptied totes and the Sanitizer remaining in the tank was permitted under the NPDES permit as part of the shutdown operation, given DWR's position, Blue Ridge Paper has not discharged Cleaning Solution or Sanitizer since receipt of your Wednesday, July 7 email. Any such materials are being managed as waste as the shutdown at the Mill continues.

Blue Ridge Paper emphasizes and further notes the following:

- Both the Cleaning Solution and the Sanitizer were treated at the WWTP when used during the normal operation of the Mill.
- Blue Ridge Paper considered the Cleaning Solution remaining in the opened and partially empty totes and the Sanitizer remaining in the single tank to be in-use process chemicals.
- In prior discussions regarding the shutdown with DWR, Blue Ridge Paper indicated that it would be emptying process vessels and tanks to the WWTP, washing them out, and discharging the wash water to the WWTP. Blue Ridge Paper considered the discharge of remaining Cleaning Solution and Sanitizer to be consistent with this representation, and analogous to the emptying and cleaning of process vessels containing black liquor and other process chemicals as authorized by the NPDES permit.
- The total amount of the Cleaning Solution (containing 10-15% NaOH) and Sanitizer (containing 12.5-15.6% NaOCl) discharged to the Mill's WWTP is estimated at 300-600 gallons and 6,028 gallons, respectfully. These were minimal contributions to the greater than 18 MGD of total wastewater treated at the WWTP during this time.
- Both the Cleaning Solution and the Sanitizer were conveyed to the WWTP and treated prior to discharge. The NPDES Permit authorizes the discharge of treated wastewater to the Pigeon River. *See* paragraph 2 on page 3 of 21 of NPDES Permit NC0000272.
- The Mill has a rigorous BMP program, including monitoring influent to the WWTP and neutralizing pH detected in the influent, so that potential adverse impacts from the discharge of the Cleaning Solution or the Sanitizer would have been detected early in the treatment process. No spikes in pH attributable to the discharge were detected, and there were no deviations from the monitored parameters for the WWTP during this time.
- Neither the discharge of the Cleaning Solution nor the Sanitizer resulted in the violation of water quality standards in the NPDES permit.
- The WWTP regularly treats discharges of heavy black liquor with NaOH concentrations at 50%, which is five times higher than the concentration of NaOH in the Cleaning Solution, and is far more challenging to treat then either the Cleaning Solution or the Sanitizer based on the high pH, as well as solid concentrations, color, and other characteristics. During the shutdown operations in late May and early June, authorized black liquor discharges to the WWTP from draining and cleaning process

vessels and tanks far exceeded the volumes of the residual Cleaning Solution and Sanitizer discharged from the partially empty totes and the tank. Throughout this time, the Mill was carefully scheduling the discharge of black liquor from vessels and tanks in the Mill and monitoring pH and other characteristics of the wastewater generated at the Mill to avoid upsets at the WWTP, including the neutralization of incoming wastewater. Through this careful scheduling and monitoring, the Mill was able to manage loading to the WWTP during the most challenging period of shutdown in late May and early June without a monitored violation of the water quality standards in the NPDES permit.

• On information and belief, it is industry practice for pulp and paper mills throughout the United States to drain, rinse and wash partially emptied totes and tanks of materials that cannot be practically used, such as during cold shutdowns.

Description of the Activity Captured in the Photos Provided with the Complaint to DWR

The NOV notes that the photos with the complaint show two stacked totes with a hose connecting the top and bottom totes, and another hose running from the bottom tote to the sewer drain. Stacking the totes in this fashion was consistent with normal operation, and mitigated the potential for releases or other accidents when changing out a tote, as follows:

- 1. A single tote of cleaning solution would be opened by attaching a hose and pump to the bottom of the tote, which would then be used to clean paper machine clothing as described above.
- 2. When this initial tote was empty, a second tote would be stacked on top of the first (bottom) tote. This top tote would be used to refill the bottom tote, which would remain in place and continue to be used as a "run tank."
- 3. When the top tote was empty, it would be rinsed and returned the vendor, and then replaced with a new top tote to fill the bottom "run tank," and this process would be repeated.

This process was both efficient and eliminated an iteration of detaching and attaching the hose/pump apparatus that was more prone to result in a release or accident than stacking and connecting the two totes.

In the photographs showing the two stacked totes, the top tote was emptied to the bottom "run tank" during normal operations. The material in the run tank was then used to clean the paper machine clothing. The run tank was only partially emptied before the paper machines were shut down and the paper machine clothing was cleaned for the final time. The Cleaning Solution remaining in the run tank was then drained to the WWTP by removing the pump assembly and moving the hose to the Mill's sewer drain. Once drained, all empty totes were triple rinsed with water and returned to the vendor.

Draining process vessels and tanks during the shutdown were scheduled by Mill operations and communicated to the WWTP so that the operators at the WWTP could plan for and properly manage the WWTP through potential spikes in pH, oxygen demand, and other treatment challenges. Draining the Sanitizer tank was scheduled to begin on the morning of May 30 and to take place over an approximate 24-hour period. As scheduled, the tank was drained beginning around 10:00 a.m. on May 30 and ending around 10:00 a.m. on the following day.

Draining the Cleaning Solution remaining in the three open, partially empty totes was not scheduled and communicated to the WWTP because the activity would have minimum risk of upsetting the WWTP operations given the dilute concentration of NaOH (versus, for example, 50% concentration of heavy black liquor) and the minimal volume (estimated at 300-600 gallons total) discharged over several days. While we cannot provide the specific dates and time that the three open totes were drained to the WWTP, our best estimation is that the activity took place between May 22, 2023, and June 6, 2023.

Blue Ridge Paper further notes that June 9, the day that Blue Ridge Paper and DWR discussed this matter by telephone, was the official shutdown of manufacturing operations at the Mill, and the last day for the majority of employees and operators at the Mill. Employees and operators at the Mill worked hard to carefully manage the discharge of material from the Mill during shutdown activities in late May and early June, and Blue Ridge Paper is proud of its employees and operators for managing these operations to maintain all monitored parameters and water quality standards at the WWTP within allowable limits during this extraordinarily challenging time.

In conclusion, we wish to address three cited violations in the NOV:

- I. Make any outlets into waters of the State. As noted herein, the Cleaning Solution and Sanitizer were discharged to the Mill's sewer and routed to the WWTP where they were treated before being discharged to the Pigeon River. These materials were properly treated at the WWTP during the normal operation of the Mill, and Blue Ridge Paper believes that discharge and treatment of the material remaining in the three open totes and the Sanitizer tank upon shutdown was in compliance with its NPDES Permit and G.S. 143-215.1(a)(1).
- II. <u>Duty to Mitigate</u>. Although Blue Ridge Paper believes the discharge and treatment of the remaining Cleaning Solution and Sanitizer at the WWTP during shutdown was authorized by the NPDES permit, the Mill did not discharge any Cleaning Solution or Sanitizer after it received notice from DWR on July 7 that DWR believed the discharge was not authorized.
- III. <u>Duty to Comply</u>. As described in this response, Blue Ridge Paper was acting on a good faith belief that it was authorized to discharge the Cleaning Solution and the Sanitizer remaining in the three open totes and the single tank to the WWTP for treatment during the shutdown operations.

We appreciate your consideration of the information provided in this response.

Sincerely,

James Clary, General Manager - Canton

Blue Ridge Paper Products LLC

cc (email only):

Michael Pjetraj Julie Grzyb Richard Rogers Sharon Martin

Billy Clarke, Roberts & Stevens