ARNOLD & PORTER KAYE SCHOLER

Joel M. Gross
+1 202.942.5705 Direct
Joel.Gross@apks.com

November 27, 2017

Via Federal Express and E Mail
Mr. J. Trent Allen, Regional Supervisor
Water Quality Regional Operations Section
Fayetteville Regional Office
Division of Water Resources, NCDEQ
225 Green Street, Suite 714
Fayetteville, NC 28301-5043
(910) 433-3300

RE: Notice of Violation & Intent to Assess Civil Penalty
Tracking Number: NOV-2017-DV-0288
Permit No. NC0003573
Chemours Company-Fayetteville Works
Bladen County

Dear Mr. Allen:

As counsel for the Chemours Company FC, LLC ("Chemours"), we respectfully submit this letter in response to the Notice of Violation & Intent to Assess Civil Penalty ("NOV") issued by the Department of Environmental Quality ("DEQ") dated November 13, 2017.

As described herein, the NOV relates to an equipment upset incident that took place on October 6, 2017 at Chemours' Fayetteville Works. This response describes, based on a review of the events in question, how and why the incident occurred, the estimated amount of materials released, the timing of the reporting to DEQ concerning the incident, and the measures that Chemours has taken to address the release when it occurred and to prevent reoccurrences. The NOV alleges that Chemours violated two conditions of its NPDES permit by not promptly reporting the incident to DEQ. As explained below, it is Chemours' position that neither of these conditions applies to this incident, and, because the amount of materials discharged was far below applicable reportable thresholds, reporting was not legally required. That said, Chemours

acknowledges that, since the incident likely involved the release of Dimer Acid Fluoride ("DAF"), which can be converted under certain circumstances to C3 Dimer Acid, the discharge of which has been the subject of extensive and ongoing discussions between Chemours and DEQ, it would have been appropriate for Chemours to have reported to DEQ promptly following the incident on the potential that the incident could lead to additional C3 Dimer Acid discharges, whether or not such reporting was legally required. Chemours is implementing procedures to assure prompt reporting of incident such as this, should any occur in the future.

Description of Release Incident and Amount and Duration of Release

Events on October 6, 2017

On October 6, 2017, at approximately 3:30 AM, Chemours' Fayetteville Works facility experienced a waste gas scrubber upset in its Vinyl Ethers South ("VES") area. The VES waste gas scrubber is designed to remove acidic materials from process vent streams using a 10% potassium hydroxide and water solution as the scrubbing medium.

At the time the upset occurred, the VES Central Control Room ("CCR") technician was having difficulty with the scrubber operation. While the CCR technician was working to bring the operation back to normal, a field technician noticed a fine mist exiting from the top of the VES exhaust stack, which mist settled as liquid material (the "Released Liquid Material") on and around the sidewalk below to the west of the exhaust stack. The technicians stopped the operation, cleared the area, and notified the First Line Supervisor.

The First Line Supervisor tested the Released Liquid Material with litmus paper and found that the pH was approximately 12. The First Line Supervisor also checked the pH gauge of the nearby non-contact cooling water drainage ditch and found that the pH was no different than normal, suggesting that there was not a significant release into the ditch. Further, as an additional tool to identify the content of the Released Liquid Material, a technician collected liquid from the bottom of the stack and brought this liquid to the facility's lab for immediate testing and identification as either a water, hydrocarbon, or fluorocarbon substance. The lab tested and identified this liquid as a water substance.

Based on the pH of the Released Liquid Material, the fact that the scrubber primarily contains 10% potassium hydroxide and water solution (which has a pH of 12), and the lab report identifying the liquid at the bottom of the stack as a water substance, the First Line Supervisor believed that the Released Liquid Material consisted of 10% potassium hydroxide and water solution. Based on visual observation and review of the facts and circumstances as described above, the First Line Supervisor estimated that the amount of the Released Liquid Material was approximately 20 pounds and that the release occurred for approximately 5 minutes. The First Line Supervisor prepared a

safety report of the incident (attached hereto as Exhibit A). The First Line Supervisor and technicians cleaned the Released Liquid Material with absorbent pads specifically designed for high pH liquids.

The First Line Supervisor was aware that approximately five hours before the waste gas scrubber upset (between approximately 10:30 and 10:45 pm on October 5), a transfer line connected to the DAF ISO Container had begun a process of being purged to the same waste gas scrubber (after the DAF liquid in the line had been drained into separate jugs and the line had been verified free of liquid). However, for reasons discussed below, he did not believe at the time that DAF was a constituent of the Released Liquid Material discharge, nor does it appear that the possibility that DAF was a constituent was discussed among the employees involved.

Current Understandings

Chemours believes that approximately 20 pounds of 10% potassium hydroxide and water solution and some volume of DAF or DAF potassium salt (from DAF vapors that were in the DAF Transfer Line purged to the scrubber approximately five hours earlier on October 5) were released on October 6 over an approximately 5-minute period. The amount of DAF or DAF potassium salt released is further discussed below. As the Released Liquid Material settled below the VES exhaust stack, it appears that some portion of it entered the adjacent non-contact cooling water drainage ditch, which flows to the facility's effluent trench and then is discharged to the Cape Fear River through Outfall 002. Heavy rain that occurred for the two days following October 6 likely washed more of the Released Liquid Material from the surrounding area into the drainage ditch. DAF and DAF potassium salt are expected to convert to C3 Dimer Acid upon contact with water. Notwithstanding efforts to clean up the Released Liquid Material using absorbent pads, it is now Chemours' assessment that some of the Released Liquid Material was not captured by the pads and entered other media. (The facility personnel did not observe this uncaptured portion of the Released Liquid Material after attempts to clean it up; rather, this assessment is based on what is likely to have occurred given all of the known facts.)

Cause of Release Incident

At the time that the release occurred, the VES area was in the process of decontaminating process equipment to prepare for the site maintenance shutdown and turnaround. Decontamination involves a series of pressure and vent cycles where vessels are pressured with nitrogen and then the nitrogen is vented down through the waste gas scrubber.

While the VES area was working on decontamination, the Vinyl Ethers North ("VEN") area was in the process of using nitrogen to purge the DAF Transfer Line to the DAF ISO Container, which is located in the VES area and also vents to the waste gas

scrubber. Before the purge, the DAF Transfer Line had been drained of 27 gallons of DAF liquid into separate jugs, so that at the time of the purge, the only DAF that may have been in the line would have been in vapor form. When technicians started purging the DAF Transfer Line at 10:30 pm on October 5 into the VES waste gas scrubber, the waste gas scrubber experienced high differential pressure (which was believed to have been caused by higher than normal flow of nitrogen). After about 10 to 15 minutes of purging of the DAF Transfer Line, the purging was stopped, and the waste gas scrubber appeared to return to normal operation. An alarm on the exit knockout pot later sounded, indicating that there may have been liquid or foam carryover from the waste gas scrubber to the knockout pot.

Several hours later, during the early morning of October 6, the higher than normal flow of nitrogen through the scrubber system (in connection with the VES decontamination work) entrained some of the liquid/foam from the knockout pot to the VES exhaust stack, resulting in the release of mist which ultimately settled as liquid on the ground below to the west of the exhaust stack as described above.

Explanation for Initial Determination That No Reportable Event Had Occurred

As noted above, the First Line Supervisor, who has responsibility to determine whether the incident should be reported to governmental agencies, believed that the Released Liquid Material was 10% potassium hydroxide solution mixed with additional water, based on its pH of approximately 12, the fact that the scrubber primarily contains 10% potassium hydroxide and water solution, and the fact that the lab report identified the liquid at the bottom of the stack as a water substance. He considered whether to report the release under the facility's reporting policies, but determined that reporting was not required because the reportable quantity for a release of potassium hydroxide is 1,000 pounds (*see* 40 C.F.R. § 117.3; 40 C.F.R. § 302.4) and only approximately 20 pounds of 10% potassium hydroxide and water solution was believed to have been released.

The First Line Supervisor did not focus on the possibility that DAF might have been released as well, because the pH of DAF is less than 2, the DAF Transfer Line had been drained of liquid DAF before the purge, and the purge of the DAF Transfer Line had occurred several hours earlier. And even if a small amount of DAF might have been present in the Released Liquid Material (in a manner consistent with the high pH reading), the First Line Supervisor believes he would have concluded that reporting was not required because the amount would have been so small as to be well below any reportable quantity. In this regard, the reportable quantity for a release of DAF is calculated by the facility and stated in its applicable reporting policy at 1,660 pounds (based on an equivalence to the 100 pounds reportable quantity for hydrogen fluoride at 40 C.F.R. § 302.4) and there was clearly no release at that level. Neither the First Line Supervisor nor, as best as we have been able to determine, anyone else at the time, focused on the potential for impacts at Outfall 002 and in the Cape Fear River from even very small releases of DAF.

It appears that the possibility that DAF might have been released was not discussed between or among any of the facility personnel that reviewed the incident on October 6. Given their assessment at the time, these personnel did not report the incident further up the chain of command within the company.

Prompt Reporting on November 1, 2017

On November 1, 2017, the facility first reviewed sampling results from Test America for Outfall 002 for the month of October. These sampling results showed higher levels of C3 Dimer Acid for the second and third week of October than had been previously measured at the outfall. (DEQ representatives had notified facility representatives during the preceding several days that DEQ's own sampling had shown a spike in C3 Dimer Acid levels during October.)

Promptly upon reviewing the sampling results showing the spike in C3 Dimer Acid levels that had occurred in October, the facility's environmental personnel began to look into what could have caused the spike. After these personnel determined that the spike may have been caused by the October 6 incident, they notified outside counsel of the October 6 incident during the afternoon of November 1. At 6:02 PM on November 1, facility personnel notified DEQ of the sampling results for Outfall 002 and that the likely cause for the higher levels was the October 6 release.[1] Senior Chemours management were notified about the October 6 release and the report to DEQ the next morning, on November 2.

While prompt notification was made to DEQ once the impact of the October 6 incident on C3 Dimer Acid discharges was understood, Chemours recognizes that, given the intense focus on C3 Dimer Acid discharges from this facility, the possible impact of the October 6 incident should have been identified sooner and DEQ should have been notified sooner. Indeed, as explained further below, Chemours is implementing procedures to ensure that any incidents potentially involving releases of DAF or C3 Dimer Acid are promptly identified and reported.

Notwithstanding that recognition, Chemours respectfully submits that reporting was not legally required here and that the timing of its reporting does not constitute a violation of the NPDES permit. As noted above, the amount of materials released on October 6 was well below the reportable quantities for both potassium hydroxide and DAF. Further, the provisions in the facility's NPDES permit that DEQ alleges Chemours to have violated are not applicable here. Specifically, Part II, Section E.9 of the permit applies to reporting of unusual occurrences or issues ***at the wastewater treatment plant***, "process unit failure[s]... that render the facility incapable of adequate wastewater treatment," or "failure[s] of a pumping station, sewer line, or treatment facility," not to

[1] The statement in the Notice of Violation suggesting that Chemours did not report the October 6 release until November 3 is thus incorrect.

releases elsewhere at the facility. Since this incident did not occur at the wastewater treatment plant, Part II, Section E.9 is inapplicable. Further, Part II, Section E.6 of the permit requires reporting of "any noncompliance that potentially threatens public health or the environment," but DEQ has not alleged that the release itself was noncompliant with the permit and, in any event, it was of such short duration and small quantity that it did not pose a threat to public health or the environment.

Estimate of Amount of DAF Discharge

Chemours is not able to estimate directly the volume of DAF or DAF potassium salt that was released during the incident. Chemours has estimated that the volume of DAF release necessary to have caused the October spike in C3 Dimer Acid levels observed at Outfall 002 was approximately 1.8 pounds. Of course, some of the DAF released during the incident likely did not reach Outfall 002 (which suggests the release volume may have been higher than 1.8 pounds) and Chemours cannot rule out the possibility that there could be some other unidentified contributing cause to the observed sampling results (which would mean that the volume released during the October 6 incident could have been lower).

Corrective Actions Taken

As noted above, when the technicians noticed the release on October 6, they stopped the operation, cleared the area, and notified the First Line Supervisor. The First Line Supervisor and technicians cleaned the Released Liquid Material with absorbent pads specifically designed for high pH liquids.

Chemours has since taken corrective measures to prevent incidents like the one that occurred on October 6 from reoccurring. While the October 6 release resulted from a confluence of unusual circumstances occurring within the facility's operations at the same time, Chemours has communicated to its technicians the importance of limiting flows to the waste gas scrubber while completing decontamination operations, using service manifolds, and taking preventive measures during a scrubber upset to prevent a release. Chemours is also in the process of finalizing a Storm Water Plan, where sampling and analysis during rain events will identify the areas that may have higher risk of runoff containing C3 Dimer Acid. Execution of this plan may result in further corrective actions being implemented.

Further, Chemours is amending its release reporting policy at the facility and putting in place an immediate directive to require that all incidents potentially involving releases of DAF or C3 Dimer Acid are promptly reported to senior environmental managers within the company and then to DEQ. Chemours is prepared to discuss its corrective steps and new policy with DEQ if that would be helpful.

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If you have any questions or request additional information, please contact me.

Sincerely,

Joel M. Gross

CC (via email): Joe Ghiold, Project Manager, Facility Management Branch
Hazardous Waste Section, Division of Waste Management
N.C. Department of Environmental Quality
joe.ghiold@ncdenr.gov

Sheila Holman (DEQ)
Bill Lane (DEQ)
Linda Culpepper (DEQ)

CONFIDENTIAL BUSINESS INFORMATTION
Response to Notice of Violation & Intent to Assess Civil Penalty

Exhibit A. Incident Safety Report

From: Safety [mailto:no-reply@sharepointonline.com]
Sent: Friday, October 06, 2017 6:31 AM
To: Schultz, Jimmy E <James.E.Schultz@chemours.com>
Subject: WGS Upset VES Area

NEW CHEMOURS FAYETTEVILLE WORKS SAFETY COMMUNICATION

Title:	WGS Upset VES Area
Operating Area:	Fluoromonomers
Reported By:	Schultz, Jimmy E
Incident Report to Follow?:	Yes
Chemical Released?:	Yes
Chemical:	10% Potassium Hydroxide
Quantity Released:	~ 20 lbs
Duration of Release:	5 minutes
Reportable Quantity:	1000 lbs
Incident Date and Time:	10/6/2017 3:30:19 AM
Description:	VES CCR technidan was having trouble with the area WGS and trying to get it back to normal operation. Field technician noticed a fine mist exiting the area vent stack. Material on the sidewalk to the west of the VES Tower was checked with litmus paper and the pH was ~12. Clean-up activities are underway using absorbent pads. Investigation to follow.