



The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES



Robert R. Scott, Commissioner

EMAIL ONLY

April 13, 2018

Christopher S. Angier
Senior Environmental Project Manager
Saint-Gobain Performance Plastics
14 McCaffrey Street
Hoosick Falls, NY 12090

Subject: **Merrimack** – Saint-Gobain Performance Plastics, 701 Daniel Webster Highway
DES Site #199712055, Project #36430

Work Plan for 2018 Stormwater and Surface Water Investigation, prepared by
Golder Associates, dated March 30, 2018

Dear Mr. Angier:

The New Hampshire Department of Environmental Services (NHDES) has reviewed the above-referenced Work Plan prepared on behalf of Saint-Gobain Performance Plastics (Saint-Gobain) by Golder Associates, Inc. (Golder) for Saint-Gobain's facility at 701 Daniel Webster Highway in Merrimack ("facility"). The Work Plan is approved, and an addendum or revision is not needed, subject to inclusion of the following comments into the scope of work:

1. NHDES expects that the sampling will be completed in the timeframes proposed in the Work Plan, regardless of whether the storm events occur outside of normal working hours.
2. NHDES' March 14, 2018 letter requested that samples be analyzed for an expanded list of per- and polyfluoroalkyl substances (PFAS). The Work Plan proposes a significant reduction in the analytical list, only providing the "expanded list" for the tri-annual wet and dry weather samples at the outfall and the associated Merrimack River samples, and omits dodecafluoro-3H-4,8-dioxananoic acid (ADONA). NHDES notes that a total of 23 PFAS have been detected in the samples of various media collected from the facility and surrounding areas (i.e., groundwater from the on-facility monitoring wells and nearby private drinking water supply wells, on-facility and off-facility soils, roof wipes, stack char, surface water, wet weather stormwater discharge, facility air emissions, and facility dispersions). Of note, several of the PFAS listed on the "expanded list" have previously been detected in stack residue sampling at the facility (e.g., perfluoroheptane sulfonic acid [PFHpS], 8:2 fluorotelomer sulfonic acid [FTS], 6:2 FTS, and perfluoro-2-propoxypropanoic acid [HFPO-DA/"GenX"], some of which are precursors with the potential to degrade into other PFAS in the environment.

In addition to those samples described in the Work Plan, NHDES strongly recommends that samples collected as part of the source evaluation sampling (e.g., samples collected from the catch basins and roof drains) also be submitted for analysis of the expanded analyte list, including Gen-X and ADONA, to assess the potential for these compounds to have leached into stormwater. If these compounds are present in on-facility stormwater, analysis of additional surface water samples for these compounds would be warranted.

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In addition, please clarify with the analytical laboratory whether perfluorosulfonic acids or perfluorosulfonates will be analyzed. NHDES notes that perfluorononanesulfonate (PFNSA; CAS # 68259-12-1) is listed in Table 2; whereas, sulfonic acids, rather than sulfonates are listed for other similar compounds.

3. Section 3.2.1 indicates the samples will be collected during the first half hour of a storm event; however, please note that first flush sampling is allowed to be completed within the first 30 minutes of measurable discharge, rather than 30 minutes from the start of the storm.
4. The Work Plan proposes to collect samples from select locations under first flush conditions, followed by a subsequent set of samples. NHDES understands that the objective of this effort is to evaluate potential variability in PFAS concentrations in stormwater based on the duration of the storm event, such that if limited or no variability is observed, there is the potential to allow future wet weather sampling to occur later during storm events. Later sampling would partially relieve some logistical challenges with mobilizing to the site and collecting the samples from a wide geographical area under first flush conditions. NHDES notes that first flush sampling is the standard industry practice in conducting stormwater sampling, but will consider a request to deviate from this practice based on the findings of the first flush evaluation.
5. The Work Plan states that the catch basin filter socks will be replaced prior to the first sampling event. Based on information in the facility's Stormwater Pollution Prevention Plan (SWPPP), NHDES understands that the filters are intended to capture stack emission debris that may be blown from the rooftop. Prior analytical data collected from the stacks indicates the presence of PFAS in the debris. As such, NHDES recommends that a sample of the filter sock material be submitted for laboratory analysis of an expanded list of PFAS (including Gen-X and ADONA), as well as synthetic precipitation leaching procedure (SPLP) for PFAS to evaluate the potential for leaching of PFAS from this material to stormwater. In addition, please include disposal documentation of these materials in the summary report, including any analytical data collected for waste characterization purposes.
6. The text and tables indicate that the drain inlet sampling location DI-6A is upstream of CB-9 and roof input to the northern branch of the stormwater system. Our understanding is that this location is upstream of input from roof drains, but that it still receives sheet flow and flow from downspouts from the roof of the new manufacturing building. Please clarify in the summary report.
7. The Work Plan contemplates a source evaluation sampling effort that is separate from a wet weather sampling event. If logistically feasible, note that NHDES is amenable to combining these events, rather than duplicating the sampling in two separate events.
8. The Work Plan indicates samples will only be collected from stormwater infrastructure if flow is observed and sufficient flow of water is present. We recommend that if flow is insufficient to accommodate sampling equipment, alternative equipment be used and/or sampling be completed during a larger storm event so that the sampling can take place within the proposed timeframes.
9. If stormwater sampling is completed prior to the lining and related repairs to the subsurface infrastructure, please measure water levels in site monitoring wells adjacent to the sampling locations (e.g., monitoring well MW-3) within 24 hours of the storm event. Please include this information in the summary report.

10. The Work Plan indicates that samples will only be collected from Outfall 1 if conditions are safe. NHDES notes that engineering controls or other means could be used to access the sampling location. Alternatively, NHDES approves collection of a sample from upgradient manhole MH-30. NHDES understands that access to this area will be granted by the property owner in the near future.
11. NHDES appreciates the inclusion of the spring, summer, and fall sampling of Dumpling Brook. NHDES anticipates that the previously approved initial sampling in Dumpling Brook will occur as soon as access is granted by the property owner, which we understand will be issued in the near future.
12. The Work Plan proposes to eliminate samples collected in the Merrimack River (e.g., SW-MERR-301W, -302W, -303W, -401W, -402W, and -403 W) if beaver activity in Dumpling Brook obstructs flow of the water from the brook to the river. NHDES recommends that at least one round of sampling be completed at these locations, irrespective of beaver activity, for comparison purposes to the previously collected data at these locations. Additional sampling could be eliminated based on a comparison of the results pending discussion with NHDES.
13. Given the elevated concentrations observed during the previous sampling effort, NHDES recommends that surface water sampling locations SW-MERR-202-IC, SW-MERR-302-IC, and -402W-IC be included in the proposed sampling efforts.
14. NHDES concurs that dry weather samples do not need to be collected from the stormwater infrastructure if the dry weather flow abatement measures are successful in eliminating dry weather flow from the stormwater system. Observations should continue on the monthly basis as proposed, and samples collected if conditions change.

The Work Plan currently indicates that dry weather sampling in the Merrimack River will only be completed if dry weather flow is observed in the stormwater system. However, NHDES recommends that at least one round of dry weather samples be collected from the proposed Merrimack River sampling locations for comparison purposes to those collected during wet weather conditions. This information is needed to establish baseline conditions for review in conjunction with the routine groundwater quality monitoring completed at the facility. Surface water sampling is not currently required by the quarterly water quality monitoring program, but is likely to be incorporated in the future based on the outcome of this sampling program.

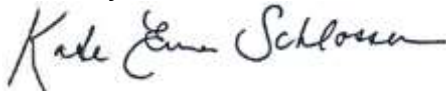
15. Please collect the in channel sample SW-MERR-201W from mixing zone observed during the dye test, if the dye test indicates the presence of a mixing zone under the conditions evaluated during the study.
16. Literature suggests the tendency of PFAS to aggregate near the water-air interface, and as such, NHDES recommends the surface water samples should be collected from near the surface of the water, not the midpoint of the water column.
17. NHDES' objective in requesting sediment sampling in the vicinity of the Dumpling Brook outfall is to assess potential direct contact risk associated with recreational users of the area. The Work Plan proposes to collect an upstream sediment sample (SED-MERR-US-1018A). While NHDES does not object to this sampling, NHDES believes that there is insufficient data at this time to

conclude that this location will represent a background condition absent of potential impacts from facility releases, given that this location is in the facility air shed, that groundwater west of the sampling location is impacted by PFAS, and that a tributary meanders through the area of impacted groundwater to the west of the sampling location and discharges into the river near the sampling location.

18. Section 2.2.1 indicates that NH currently does not have regulatory standards for PFAS in stormwater. Please note that the U.S. Environmental Protection Agency (USEPA) has not delegated authority to NHDES at this time to implement the National Pollutant Discharge Elimination System (NPDES) program, as such, stormwater quality is regulated via USEPA.
19. NHDES appreciates that the Work Plan includes a preliminary conceptual model in the Work Plan. The Work Plan did not include the requested discussion of fate and transport of potential precursors to the perfluoroalkyl acids (PFAAs). NHDES anticipates that this discussion will be included in the Site Investigation report requested under separate cover.
20. Please provide interim submittals that document the findings of the first flush sampling event, the findings of the dye study, and catch basin insert disposal documentation, as these may influence the scope of the remainder of the study. Additionally, please provide data transmittals within 45 days of each sampling event. NHDES also requests that validated analytical data be uploaded to NHDES' Environmental Monitoring Database (EMD).

Should you have questions or wish to further discuss these comments, please contact us at NHDES' Waste Management Division.

Sincerely,



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