

30 March 2021

Sergio Nusimovich  
Chief Development Officer  
Tradebe Environmental Services, LLC  
234 Hobart Street  
Meriden, Connecticut 06450

**Subject: Summary Statement of Review of New York State DEC Report**

Dear Mr. Nusimovich:

Under contract to Tradebe Environmental Services (TES), Geosyntec Consultants Inc. (Geosyntec) was tasked to undertake an independent review of New York Department of Environmental Conservation's (NYDEC, DEC) March 2021 *Norlite Environmental Sampling Report*, including the report's treatment of analytical data and findings.

Geosyntec conducted statistical analyses of perfluorooctanesulfonic acid (PFOS), perfluorooctanoic acid (PFOA) and Total PFAS (per- and polyfluoroalkyl substances) concentrations in soil, utilizing surface soil data collected by NYDEC in concert with the DEC and US Environmental Protection Agency (USEPA), Region 2's-preferred software package, ProUCL Vs. 5.1. Employing conservative assumptions where indicated (e.g., treatment of duplicates), test results indicate there is no statistical difference between surface soil samples collected upgradient and downgradient from the Norlite facility (upgradient and primary downgradient depositional areas were inferred by NYDEC based on area meteorological data collected over the past five years). This finding indicates that potential stack emissions of products of incomplete combustion from the facility have not influenced immediate vicinity or regional levels of PFAS in the environment.

Geosyntec, in critical review of data analyses reports appended to NYDEC's March 2021 *Norlite Environmental Sampling Report*, has confirmed that all soil samples analyzed for PFOS and PFOA are below Restricted Residential Use Guidance Values (RRUGVs) (44 and 33 ug/kg, respectively), including co-located samples at 0-2" bgs and 0-6" bgs collected from Saratoga Sites, the Cohoes Housing Authority facility that adjoins the Norlite facility. In fact, all soil sample results are below Residential Use Guideline Values (RUGVs) (PFOS = 8.8 ug/kg), with a single marginal exception for PFOS: This exception (9.8 ug/kg) was recorded at a location upwind of the Norlite facility, adjacent to another commercial facility, that may be a PFAS source. This detection occurred on

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commercial/industrial property and thus does not indicate a relevant exceedance in assessment of residential exposures; it is also more than an order of magnitude below NYDEC Commercial/Industrial Guideline Values for PFOS (440 ug/kg). There is no indication that detected PFAS concentrations in the region are present at levels capable of eliciting acute or chronic adverse human health effects.

Geosyntec conducted additional statistical analyses to compare downwind surface soil concentrations to documented, peer-reviewed anthropogenic background studies for PFAS. Statistical descriptors of the on-and off-site downgradient surface soil samples are lower than anthropogenic background levels, corroborating NYDEC's findings predicated on a comparison of surface soil data population median values. While our analysis of background datasets continues, these findings support DEC's positions that: 1) Norlite operations have not materially influenced regional PFAS levels; and, 2) Regional PFAS levels remain below human health levels of concern.

Operating temperatures and destruction-removal efficiencies associated with Norlite's rotary kiln emissions do not indicate the potential for un-combusted PFOS or incompletely combusted PFAS compounds to have been emitted from the Norlite facility. Many industries in the surrounding area are known to purposefully use or incorporate PFAS compounds in their operations. Geosyntec conducted a USEPA Enforcement and Compliance History Online (ECHO) database search to identify industrial facilities within one- and five-mile radii of the site. More than seven hundred entities were returned. Refinement of this list to focus on eight industrial operation types with known association to PFAS use, resulted in 43 surrounding facilities that represent likely and potentially confounding PFAS sources and the potential to release PFAS to the regional environment.

Overall, Geosyntec corroborated DEC's findings of no impact to local or regional PFAS content in surface soil and we reiterate that none of the recorded analytical samples indicate the potential to elicit acute or chronic adverse human health effects to residential or commercial/industrial populations present in the surrounding community(ies). Our assessment of additional lines of evidence and DEC findings continues with respect to other receiving environmental media and additional constituents. However, it is important to note that Tradebe's policy and due diligence in pre-screening waste streams to reliably restrict and eliminate PFAS content ensures that ongoing or future PFAS emissions are not a continuing concern for the surrounding communities.

If you have any further questions please do not hesitate to contact me at 202-370-4352 or [tkline@geosyntec.com](mailto:tkline@geosyntec.com).

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Very truly yours,

A handwritten signature in dark ink, appearing to read 'TRAVIS R. KLINE', with a long horizontal flourish extending to the right.

Travis R. Kline, MEM, BCES  
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cc: J. Beswick, TES