

Town of Orangetown

Town Hall 26 W. Orangeburg Road · Orangeburg NY, 10962

Telephone: (845) 359-5100 ext. 2261 · Fax: (845) 359-2623

e-mail: supervisor@orangetown.com

website: www.orangetown.com



Chris Day
Supervisor

MEMORANDUM

TO: TOWN BOARD
FROM: AIR QUALITY REVIEW COMMITTEE; PETER DUDA, CHAIRMAN
SUBJECT: EMISSIONS EVALUATION REPORT
DATE: MAY 22, 2018
CC:

Findings:

- 1) ALUF is the source of odors which generated hundreds of complaints by Orangetown residents. Complaints are clustered around ALUF. Residents were encouraged to include specific addresses and wind direction in complaints. When complaint location and wind direction were plotted on a map of Orangetown, it became obvious that the source of the odors was (is) ALUF.
- 2) ALUF expanded operations beyond what was authorized in their original NYS DEC operating permit. Original permit authorized 17 extrusion lines and ALUF submitted a form to the Orangetown ZBA signed by the president of ALUF which testified that they have 69 extrusion lines operating.
- 3) Air sampling around ALUF has shown several compounds exceeding guidelines at times. The sampling represents single points in time and does not measure the longer term exposure of residents around ALUF. While the reports and data do not provide evidence of a major health threat, the fact that samples exceeded guidelines could mean that a health threat exists. The on-site testing did not clearly measure concentrations of Acrolein, which George Sweikert (NYS DEC) reported to residents in the TRC memo dated 12/1/17 as matching the odor which residents were smelling.
- 4) Rooftop air sampling conducted by TRC shows significant compounds exiting stacks and fans from ALUF. It appears that the emissions controls systems are ineffective in removing compounds. Complete committee report and analysis is attached.

Supporting Arguments:

TRC on-site sampling has demonstrated that emissions from ALUF reach residential neighborhoods. Complaints have been registered from residents in those neighborhoods and beyond. Plotting of complaints has shown ALL (except 2) complaints to be clustered around ALUF and wind direction tracked on most recent complaints demonstrates that the emissions/odors are carried from ALUF to the location identified on the complaint. Building Department records contain NYS DEC audit reports in

which DEC auditors smelled odors at ALUF and the same odors in residential neighborhoods. Records show Building Department employees have experienced odors being emitted from the ALUF facility. Consent Order issued to ALUF on 12/12/2016 specifically states that ALUF “shall implement whatever measures are necessary, as proposed by the report, in order to ensure that the best management practices are implemented to prevent odorous air from any process that takes place inside the Facility from being sensed in the surrounding neighborhoods at levels which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property. Every two weeks thereafter, a progress report shall be submitted to the Department reporting progress until one year after all remedial measures have been implemented”. Based on the number of resident complaints, this issue has not been properly addressed.

ALUF submitted a Town of Orangetown Use Subject to Performance Standards Resume of Operations and Equipment form to the Town, signed by Susan R. Rosenberg on May 14, 2017 stating that they have 69 Extrusion Lines. The original NYS DEC permit (Effective Date 01/29/2013) allowed for 17 plastic bag extrusion lines. In his letter to George Sweikert, NYS DEC dated September 13, 2016, Town of Orangetown Supervisor Andy Stewart requested the DEC to incorporate numerous comments into their final Scope of Investigation. Item 7 on this list was to “Define the number of extruders or extrusion units/lines and all other odor-causing machines in the DEC permit and ensure there is a plan to expand odor control should the plant expand in the future”. There are no building permits filed to support expansion of ALUF operations from 17 permitted extrusion lines to the present 69 extrusion lines operating as sworn to by the president of ALUF.

Based on the description of the emissions control system provided in the draft Korlipara Engineering Investigation of Air Emission Controls at ALUF Plastics report dated 1/20/2017 reviewed by our committee, combined with information provided in the ALUF Plastics Building Ventilation Proposal dated 2/15/2017 and revised 3/15/2017, our committee believes that the emissions control system is less effective at removing solvents than when it was originally designed. According to the Korlipara report, the solvents are supposed to cool and coalesce into aerosol in ductwork leading to a cyclone separator. At elevated temperatures (ALUF report states summer temperatures inside the building may exceed 140 degrees), less condensing and coalescing occurs and more compound is carried through the cyclone separator and particulate filters and into the carbon filtration system. The carbon filtration system would begin to fail at a rate faster than expected according to the original engineering design. There would eventually be breakthrough in the carbon filtration systems, causing compounds and associated odors to exit the facility in greater amounts.

Residents logging complaints have said that the number of occurrences of odors has increased and the strength of the odors is worse recently than previous years. The residents report that the smells are worse in the warmer weather, which makes sense because the warmer weather adds to the heat load within the facility. If unapproved equipment (52 extrusion lines) have been installed and connected to existing emissions control systems without upgrading design and capacity, the emissions controls systems will fail. The recent fire in a carbon filter may have been the result of the system being saturated with compounds. Fires put employees, residents and first responders at risk. Following the recent fire, the “REPRO” operation was shut down. This manufacturing area was reported to be the biggest generator of emissions and potential odors. Even with “REPRO” shut down, residents continue to file odor complaints, which demonstrates that the remaining operating areas within ALUF also generate emissions and odors. This demonstrates that all emissions from this facility must be captured and properly treated. Any system redesign must include a sensing system to identify breakthrough of carbon beds or other failures of emissions controls systems. A built-in backup system, allowing automatic changeover to fresh emissions control materials is desired. Residents should not be required to be indicators of emissions control system failures.

What is particularly disturbing and perplexing to our committee is the measurement of Acrolein reported in TRC sampling reports and various memos. In the 12/1/17 TRC memo to the Orangetown Town Board, George Sweikert (NYS DEC) is reported as telling residents that Acrolein matched the odor description in their complaints. He questioned whether or not TRC would be analyzing for it as part of their monitoring program. TRC was made aware of Acrolein as a potential source of odors, but somehow was not able to come up with a satisfactory sampling strategy. Our committee considers Acrolein to be a potential candidate for causing odors because of its' low boiling point. It will be carried through the ductwork at the elevated temperatures within ALUF with minimal condensation and removal in the cyclone separator and particulate filters. It may be the most likely compound to break through carbon filtration and be detected by the residents around ALUF.

Recommendations/Action to be taken:

- 1) Request NYS DEC, with Orangetown involvement, to conduct a complete engineering review of the emissions controls systems in ALUF during the period of Repro shutdown. Upgrade existing systems and/or create new systems to capture **ALL** emissions. Include a dynamic monitoring system at all emission points to detect failures and breakthroughs of carbon filters and automatic switch over of exhausted emissions control systems to fresh systems. Orangetown residents must not be allowed to be used as nuisance alarm indicators telling ALUF that their emissions control systems have failed.
- 2) Request NYS DEC to review maintenance records to determine if ALUF is properly maintaining emissions control systems and outsource maintenance to an approved, licensed contractor if the review shows an inability on ALUF's part to maintain emissions control equipment.
- 3) Request NYS DEC modify, suspend or revoke ALUF's NYS DEC Permit based on violation of Item 3.1 of their permit: No person shall cause or allow emission or air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which interfere with the comfortable enjoyment of life or property. This recommendation is to be invoked if ALUF refuses to modify operations to capture ALL emissions from their facility.

Air Safety

All analysis and commentary within this memo relate to the TRC Emissions Evaluation Report. Our statement as regarding the ambient air in the area from our memorandum of April 22nd, 2018 is reiterated here for the record: "Area testing as conducted recently indicates the air has minimal to no risk for residents, with all levels of all chemicals falling below the Short Term Guideline Concentrations (SGC's), and most falling below the Annual Guideline Concentrations (AGC's). There were small exceedances of AGCs' for Acrolein, Benzene and Carbon Tetrachloride, but even if one were to apply the 24-hour samples to the AGC's these small exceedances would have minimal or no impact on health, given that the AGC's are set very conservatively. However, as these are 24 hour samples and complaints appear to be sporadic/not continuous, it is impossible to know with certainty whether such a projection would actually be an accurate representation of a resident's annual exposure, whether higher or lower."