

Environmental Committee
September 24, 2018
7:00 p.m. – City Hall Conference Room

1. Call to Order
2. Public Comment
3. Introduction
4. Committee Items
 - a. Terracycling
 - b. Sterigenics
5. New Business/Old Business
6. Next Meeting
7. Adjournment

City of Darien

TO: Environmental Committee Members

FROM: Lisa Klemm, Liaison Environmental Committee

DATE: September 14, 2018

RE: Terracycling

Terracycling is the process of taking used products destined for landfills and recycling them. Ross Wenkus, a graduate of Hinsdale South, now a freshman at Indiana University, submitted the attached letter to Mayor Weaver regarding the process of terracycling and possibly introducing it to the City of Darien.

Check the website <https://www.terracycle.com> for more information.

Ross Wenkus
304 Scheel Drive
Darien, Illinois
r.wenkus@gmail.com

May 12th, 2018

Kathleen Weaver
Mayor of Darien
1702 Plainfield Road
Darien, Illinois

Dear Mayor Weaver,

My name is Ross Wenkus, and I am a senior at Hinsdale South high school. My English class recently finished reading an essay, "Talking Back", in which author bell hooks (lowercase intended) stresses speaking as an equal to an authority figure, and acquiring and advocating for a personal opinion about an issue important to oneself. As part of my English final, I am required to address an issue important to me, and to intelligently "talk back" to an authoritarian figure. So, a problem I see prevailing in our community today is our unawareness of an additional form of recycling called terracycling. There are economic and environmental benefits we are forfeiting because of not pursuing it. Unfortunately, there is no recognition of terracycling under Darien's recycling guidelines, a problem that I believe needs correcting. Informing the Darien community about such a program that could ultimately benefit our schools is necessary, and doing so would be very feasible and valuable.

Terracycling is the process of taking used products destined for landfills, like toothpaste tubes, air fresheners, and granola bar wrappers, and recycling them. **Terracycle** is the company responsible for terracycling (hence the name of this type of recycling), and is able to do this by partnering with companies like Colgate and Clif Bar, to work on cutting the amount of waste filling our landfills by reusing already processed natural resources. There are virtually no costs for communities looking to associate with Terracycle as they offer free recycling programs which the Darien community could participate in. I believe terracycling in our community is very feasible, and many would be willing to do so knowing the benefits to it.

By recycling the products to Terracycle, one is rewarded credit which can be turned into donation money for our local schools. This additional revenue for our elementary and middle schools means things like new school supplies and even renovations. Not only does terracycling

benefit our community economically, it benefits it environmentally as well. Our local landfills are already being stressed with the average American producing 4.4 pounds of waste per day¹. Lowering the amount of human waste, and indirectly lowering natural resource consumption helps our environment out immensely.

By terracycling, Darien can champion its lower solid waste numbers, and inspire other communities to take part in terracycling, for the benefits overwhelmingly outnumber the costs. I ask that you consider introducing terracycling to our community, because I believe it's a cause well worth the time and effort.

Thank you for your time,
Ross Wenkus

A handwritten signature in black ink that reads "Ross Wenkus". The signature is written in a cursive style with a large, sweeping initial "R".

¹ <https://archive.epa.gov/epawaste/nonhaz/municipal/web/html/>

City of Darien

TO: Environmental Committee Members

FROM: Lisa Klemm, Liaison Environmental Committee

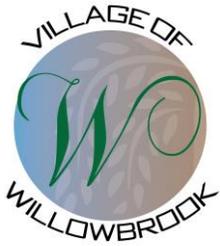
DATE: September 17, 2018

RE: Sterigenics Update

Mayor Weaver and City Administrator Vana invited United Analytic Services, INC (UAS) to attend the City Council meeting on September 17, 2018. The purpose of their attendance was to answer questions the Council raised at the meeting September 4, 2018. Council thought it was important to retain an environmental expert to assist in determining if the City needs to complete an independent review of impact Sterigenics may have on Darien.

Kevin Aikman, PhD, CIH, FAIHA of UAS attended the meeting and you can view the meeting on YouTube. Dr. Aikman is Director of Industrial Hygiene & Lab Services at United Analytical Services, Inc. (UAS). UAS currently is advising School District 86 and the Village of Burr Ridge regarding Sterigenics. The web site for UAS is <https://www.uas1.com/index.php>

Also included are the latest updates from the Village of Willowbrook and Village of Burr Ridge.



Summary of Events / Update

Willowbrook Sterigenics Environmental Issue

(as of September 14, 2018)

- On August 22, 2018, the U.S. Environmental Protection Agency (USEPA) released the 2014 National Air Toxics Assessment (NATA). This is a tool the agency uses to provide information on potential health risks from breathing air toxics, also known as hazardous air pollutants. It includes estimates of exposure and risk for 180 air toxics that the EPA regulates under the Clean Air Act. The 2014 NATA map indicates a higher level of risks from long-term exposure for populations within seven (7) specific census tracts located around the Willowbrook Sterigenics facility.
- The elevated cancer risks are largely driven by an EPA risk value derived from a USEPA Integrated Risk Information System (IRIS) assessment. The IRIS assessment dated December 16, 2016 found that ethylene oxide (EtO), a gas emitted by Sterigenics, is carcinogenic to humans (upgraded from a “probable carcinogen”).
- Upon further studying this finding, the USEPA decided to perform some ambient air sampling around a known source of EtO emissions. The Willowbrook Sterigenics facility was chosen. The sampling was completed May 16-18, 2018 and the identified levels of EtO in the atmosphere were determined. These test results were shared by the EPA with Sterigenics in June 2018.
- Sterigenics obtained a permit from the Illinois Environmental Protection Agency (IEPA) and installed additional emissions controls on its Willowbrook facilities in July 2018. The new emissions controls are reported to reduce EtO emissions by 90%.
- On August 22, 2018, the USEPA contacted the Village of Willowbrook to advise that a report prepared by the Agency for Toxic Substances and Disease Registry (ATSDR) would be released that day pertaining to the increased risk of airborne toxics emitted by Sterigenics. The ATSDR report contained three (3) recommendations: That Sterigenics take immediate action to reduce EtO emissions (which had already been done by the time the report was released), that long-term air monitoring be initiated to measure ambient air levels of EtO, and that the IDPH investigate whether there are elevated cancers in the population around the Sterigenics facility that are consistent with those associated with chronic EtO exposures.

- On August 24, 2018, the Willowbrook Mayor posted a letter on the Village website alerting the community of the receipt of the federal agency report and advising that levels of EtO gas could pose a public health hazard. The report was also provided. The letter advised that the Village was working diligently with local, county, state, and U.S. elected officials to gather information from federal and state agencies on the matter.
- On August 29, 2018, with the help of elected officials, a Public Forum meeting was held to enable the community to hear information and ask questions pertaining to their concerns. Representatives from the USEPA, IEPA, ATSDR, and Sterigenics were in attendance as a panel. Over 400 concerned individuals attended the meeting.
- Frustrated with the lack of information provided and direct answers to important questions from the community, the Village of Willowbrook announced the formation of their own independent Task Force to further study the ATSDR report, seek additional testing, including long-term monitoring, and make that information available to the public.
- On September 10, 2018, the Willowbrook Village Board engaged the professional services of:
 - **Environmental Law Firm Schiff Hardin, LLP** – Lead attorney Renee Cipriano is former director of the IEPA, and associate attorney Frank Lyons is former administrator of the USEPA
 - **Lucy Frasier Toxicology Consulting, LLC** – Ms. Frasier is a board-certified toxicologist with over 28 years of experience
 - **GHD Services, Inc.** – Mr. Dyron Hamlin is a chemical engineer and certified industrial hygienist
- On September 11, 2018, the Willowbrook Mayor, elected officials, and staff met with representatives from the Illinois Department of Public Health (IDPH) to discuss the initiation of their cancer incidence study. Although these types of studies typically take 8 to 10 months to complete, the IDPH will prioritize this project and commit to a 6-month completion timeframe.
- The Village Attorney is completing an analysis of all Village codes, including zoning codes, to determine whether the operation of the Sterigenics facility is in compliance with all local requirements, and if appropriate action can be taken as a result of identified and confirmed non-compliance.

UPDATE:

- Before additional ambient air sampling can be performed, the newly installed emissions controls on the Sterigenics facilities must be tested. This stack test is scheduled to occur the week of September 17, 2018.
- Once the stack testing results are available, the Village will request that the USEPA conduct additional ambient air sampling as soon as possible to determine current EtO levels in the area since the additional emissions controls were put in place. The Village Task Force is analyzing the USEPA's approach to monitoring. Based on their recommendations, we will ask that the USEPA also expand the testing radius and locations of monitoring to include areas of concern such as schools, daycare centers, and other locations.
- Once the ambient air sampling results are available, and reviewed by the Task Force, the Village will then insist that the USEPA forward those results to the ATSDR to request that their original report be updated to include current health risks as a result of the new tested levels.



VILLAGE OF BURR RIDGE – Public Information Post

DATE: September 13, 2018

RE: Sterigenics in Willowbrook, IL

At its meeting of September 10, 2018, the Board of Trustees received an update regarding the Sterigenics facility in Willowbrook. The Village's consultant, Kevin Aikman from United Analytical Services (UAS), was present. After an update from Village staff and Mr. Aikman, the Board of Trustees welcomed public comments on this matter.

At the conclusion of the public comments, The Board directed staff to compile the questions asked by the public and post responses on the Village website. Attached are the responses. Additionally, the Board of Trustees directed staff to provide updates on our web site. The following is the latest update regarding action steps under way and anticipated.

- The Village of Willowbrook is forming a panel of experts to evaluate data and advise the Village. The panel will include highly credentialed experts in environmental law, toxicology, and industrial hygiene.
- Burr Ridge has asked that information generated and actions taken relative to the Willowbrook panel be provided to the Village of Burr Ridge. Our consultant from UAS will review any findings generated by this panel.
- Additional testing of emissions (a.k.a. stack testing) from the Sterigenics facility is anticipated to be completed within days or weeks. These test results will be evaluated by the Illinois Environmental Protection Agency and will be provided to the public.
- The Village of Willowbrook will request that the United States Environmental Protection Agency do additional air testing upon conclusion of the stack test at Sterigenics. The Village of Burr Ridge will request this testing include any potentially impacted areas within Burr Ridge.
- Upon conclusion of the above, the Village of Willowbrook will request that the Agency for Toxic Substances and Disease Registry (ATSDR) provide an updated report based on the latest findings of the stack and air testing. Once again, the Village of Burr Ridge will support Willowbrook in this request.
- Concurrently, the Illinois Department of Public Health has begun a cancer incidence study with the goal of assessing whether there are “elevated cancers in the population surrounding the Sterigenics facility.”

Additional updates will continue to be posted on our web site. Additional information is also available on the [Village of Willowbrook website](#).



UNITED ANALYTICAL SERVICES, INC.

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Downers Grove, IL 60515
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September 13, 2018

Village of Burr Ridge
7660 County Line Road
Burr Ridge, IL 60527

ATTN: Mr. Douglas Pollack, AICP – Village Administrator

RE: Written Response to Public Questions from September 10, 2018 Board of Trustees Meeting Regarding Sterigenics International, Inc. in Willowbrook, IL and Potential Ethylene Oxide Exposures.

Dear Mr. Pollack:

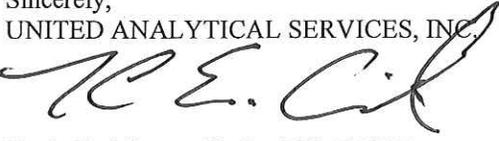
United Analytical Services, Inc. (UAS) prepared the following responses to public questions regarding the US Department of Health and Human Services (US DHHS) report that was received by the Village of Willowbrook on August 22, 2018. The questions below were from the Village of Burr Ridge Board of Trustees meeting that was held on September 10, 2018. During this meeting the Board of Trustees provided an open forum for those citizens attending the meeting to ask questions about the US DHHS report.

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1. Is Sterigenics self-testing or who is monitoring their testing? It is UAS' understanding from the August 27th public forum meeting in Willowbrook that Sterigenics is both performing self-testing and using a third party for testing at their facility. The IEPA oversees their compliance monitoring by review of annual reporting documentation. UAS is in the process of requesting additional information on air permits for the Sterigenics facility in Willowbrook by a Freedom of Information Act (FOIA) request to the IL EPA
 2. If this carcinogenic can stay in the air for 60 – 129 days, what is being done to test the water and the impact that this chemical as it settles into the ground? The US EPA reports that sources of potential exposure to Ethylene Oxide (EtO) include uncontrolled emissions or venting with other gases in industrial settings, automobile exhaust, release from commodity-fumigated materials, tobacco smoke and second-hand tobacco smoke. The EPA reports an estimated half-life for EtO of 69-149 in air and 12-14 days in sterile, deionized and natural river water. The primary mode of exposure for EtO is from the air, therefore, the EPA models address atmospheric concentrations with different Reasonable Maximum Exposure concentrations for non-cancer and cancer risk assessments (see Question 8 below).
 3. What insurances do we have that the scrubber is not going to malfunction causing increased emissions and how are we going to know right away? Compliance is regulated by the current Illinois EPA and US EPA air emissions permit. The permit is issued for a 5-year period with annual reporting requirements. The IL EPA is the regulatory agency for Illinois, and they review all construction permit requests for new controls and stack testing protocols, as well as operating permits. The IL EPA will be present during all stack testing at the Sterigenics facility to observe the third-party testing and confirm all testing is being performed in accordance with the approved protocol.
 4. They are currently in compliance with permits, when were the permits put into place and what was known about ethylene oxide at the time? Based on information provided during the August 27th public forum meeting, the facility was granted its initial permit in 1984 based on the EPA regulations at that time. The current permit was issues on

June 8, 2015 and is in force through June 8, 2020. The EPA's regulations and modeling have changed since the original permit in 1984 as part of their on-going thorough evaluation of air toxics across the US. An example of this is the EPA's most recent 2014 National Air Toxics Assessment – Technical Support Document (dated August 2018) and reclassification of EtO in December of 2016 Integrated Risk Information System (IRIS). UAS submitted a FOIA request to the IL EPA for all information regarding air permits for use of EtO at the Sterigenics facility in Willowbrook, IL. Preliminary information from the IL EPA suggests the first Construction Permit issued under the Illinois Clean Air Act Permit Program was in 1991.

5. In 1995 emissions were 18,000 lbs a year and in 1998 it went up to 32,000 lbs a year and today they are showing only 5,000 lbs. – What are the effects on the longtime (30 year) resident with that amount of toxins raining down? This question was not addressed by the most recent ATSDR assessment report. This question will be addressed by the Professional Consultant Task Force with input from the participating governmental agencies.
6. Are the concentrations of ethylene oxide greater in low areas? Ethylene Oxide is heavier than air with a vapor density of 1.49, so it is possible. However, atmospheric concentrations of EtO are dependent on many factors, such as temperature, sunlight, atmospheric inversion heights, and wind patterns.
7. How does the danger zone radiate further east from Madison into our area? This will be addressed by the follow up testing scheduled for the week of September 17th. It should also be noted that the EPA and ATSDR clearly state there is no immediate threat to public health and this is not considered to be an emergency situation.
8. How does ethylene oxide decay and what does it decay into? Does it decay into some other toxic substance? Does it pollute the ground water? What happens when it rains when it comes out of the atmosphere? A 2003 report from the World Health Organization states the following: "As a result of its high water solubility and vapour pressure, Ethylene Oxide (EtO) is not expected to bioaccumulate or accumulate in sediment or soil." The same report further indicates: "Although water solubility suggests that washout from the atmosphere by precipitation could be important, volatilization from the water is too rapid to suggest this to be a significant fate process." Current science suggests that because EtO is highly reactive, it does not persist indefinitely in the atmosphere, soil or water. EtO ultimately degrades in the air by the process of photolysis, is not readily absorbed into sediments, soils and water, primarily due to its high volatility. In water EtO is converted to glycol by hydrolysis.
9. The life of the oxide will stay in the area for 69-194 days, what happens with the emissions over those days. Are there days when the air is heavy and there are higher concentrations in a given area? See answer in Question 8 above.
10. What is the most aggressive plan the Village can enact to add to the data, especially in Harvester Park? The Village will follow the recommendations of the US EPA, IL EPA, ATSDR and the new Professional Consultant Task Force to make informed decisions to protect the residents of the Village of Burr Ridge.
11. Do we have a Sterigenics in Burr Ridge? Should we hire professional consultants to do audits of some of the manufacturers and businesses in Burr Ridge? The Village will take this into consideration and will consult with the IL EPA to determine if there are other potential sources of environmental contaminants within the corporate limits of the Village of Burr Ridge.

12. What is the Village of Burr Ridge doing to support the Village of Willowbrook? **The Village of Burr Ridge is in constant contact with the Village of Willowbrook Mayor's and Administrator's office and will have a representative on the Professional Consultant Task Force to keep the Village of Burr Ridge fully involved in this process and updated on all developments related to the Sterigenics issue.**
13. What is Burr Ridge doing to prevent a company like Sterigenics from opening in Burr Ridge? **The Village of Burr Ridge and the Board of Trustees will make every effort to work with the appropriate local, state and federal agencies to ensure that the citizens are provided the best air quality possible. The Village is considering an initial review of the IL EPA listing of entities with regulatory activity within the corporate limits of the Village of Burr Ridge.**

Sincerely,
UNITED ANALYTICAL SERVICES, INC.

Kevin E. Aikman, Ph.D., CIH, FAIHA
Director of Industrial Hygiene Services



KA:/Village of Burr Ridge/UAS Response to Public Comments 091218.docx
UAS Job No. 1899442-09



VILLAGE OF BURR RIDGE – Public Information Post

DATE: September 4, 2018

RE: Sterigenics in Willowbrook, IL

On Wednesday, August 22, 2018 the Village of Willowbrook was advised that the United States Environmental Protection Agency (US-EPA) released a report from the Agency for Toxic Substances and Disease Registry (ATSDR, which is a subsidiary of the Centers for Disease Control) regarding Sterigenics International Inc., a business located in the Village of Willowbrook, IL. The report indicates that Sterigenics emits a chemical, ethylene oxide (EtO), that the USEPA recently reclassified as possibly being more harmful to humans than was previously thought. Through inquiries, the Village of Willowbrook learned that the USEPA had asked the ATSDR to complete the report as a result of the recent reclassification of EtO which occurred in December of 2016 so they could further study EtO to develop appropriate regulatory standards. The facility in Willowbrook operates under a permit issued by the Illinois EPA, and the US-EPA/IL-EPA have stated that they are in compliance with their permit. However, their further study into EtO may result in the need for further emissions reductions. The recent reclassification of EtO was the result of the 2014 National Air Toxics Assessment (NATA), which is performed every 3 years. The most recent NATA report (the 2014 report) identified areas throughout the country that they believe are at a higher risk of exposure to airborne toxins.

The Village of Willowbrook sponsored a public forum meeting on Wednesday, August 29 to present the facts and allow the community to ask questions. In addition to representatives from the Villages of Willowbrook and Burr Ridge, Congressman Bill Foster, Sen. John Curran, and Rep. Jim Durkin were also in attendance. At that forum, the IL-EPA advised that there is no imminent threat to public health from short-term exposure to EtO, but the long-term effects are largely unknown. Burr Ridge is concerned about any alleged or potential health hazard to our community. As a precaution, the Village is hiring our own environmental consultant to evaluate the information from state and federal agencies and to advise the Village. Additional information is continuing to be posted on the [Village of Willowbrook website](#) and will continue to be posted at this location on the Burr Ridge web site.

**Minutes
City of Darien
Environmental Committee Meeting
Monday, May 14, 2018**

PRESENT: Robert Erck, Deb Hardtke, Hilda Gonzalez, Allan Jackimek, Lisa Klemm – Liaison, Guests – Cynthia McCann and MaryBeth Owano (GoodWorx, Inc) and Alderman Sylvia McIvor

ABSENT: Jane Harmon, Arleta Peknik

Chairman Jackimek called the meeting to order at 7:04 p.m. at City Hall – Conference Room.

OLD BUSINESS

Recap of Electronics Recycling Event held on Saturday, April 21st. Event was a huge success. Discussed future events and, in future, limit the number of items for drop off (or number of televisions allow). Thanked everyone for their participation. A total of 6.75 tons of electronics was collected.

A copy of DuPage County Waste and Recycling Report for 2017 was circulated. Darien sits at a 40% recycling rate.

Clarke Mosquito is back. This is their 2nd year of a 3 year contract.

NEW BUSINESS

Cynthia McCann and Mary Beth Owano introduced themselves and educated the committee on Good Worx, Inc. and what they are all about. They discussed composting as it relates to their growing project and the plans that are in the works to redirect food scraps in the community. Encouraging all to start composting.

Good Worx, Inc. is always looking for volunteers (weeding, watering, etc) from June to November. They have seven locations. District 86 uses the farm location for their Transition Center for the deaf/hard of hearing students.

NEXT MEETING – Monday, September 24, 2018 – City Hall Conference Room – 7:00 p.m.

Meeting adjourned at 8:29 p.m.