An Update from Wheelabrator Hudson Falls

Wheelabrator Hudson Falls, a WIN Waste Innovations company, diverts post-recycled residential and commercial waste from landfills and converts it into renewable energy that powers homes and businesses in the region. Creating electricity from waste is an environmentally friendly alternative to landfilling that generates a byproduct upon which all of us depend — electricity.

Every day, the Wheelabrator waste-to-energy facility in Hudson Falls converts more than 400 tons of post-recycled waste into renewable energy through a highly efficient combustion process that meets strict state and federal standards.

By recovering energy from post-recycled trash, Wheelabrator diverts all those tons of waste from landfills, where they would otherwise decompose, releasing methane, the greenhouse gas that has a global warming potential more than 84 times that of carbon dioxide in its first 20 years. Diverting waste from landfills and converting it into a resource eliminates vast amounts of future greenhouse gas emissions – for every one ton of waste converted at Wheelabrator Hudson Falls, one ton of carbon dioxide equivalent (CO_2e) emissions are avoided. This is one of the reasons waste-to-energy is the EPA's preferred method for end disposal of waste.

On April 16, 2025, we held a public information meeting as part of our Public Participation Plan and in connection with our Title V renewal application, which will reduce the allowable nitrous oxide (NOx) emissions by about 20%. This meeting was an opportunity to engage in meaningful dialogue with the community, provide information about our pending application, and hear directly from residents.

As discussed during the meeting, operating under upset conditions is never our intent. However, due to the complex and technical nature of our systems, occasional deviations can occur. To address this, we use our scheduled maintenance outages not only for routine service but also to make strategic investments that help reduce the likelihood and potential impact of future issues.

During our most recent outage, we replaced the bypass valve that previously contributed to an elevated noise level. In that situation, the valve did not close properly, which prevented steam from being routed through the industrial silencers as designed. Replacing this component is expected to significantly reduce the chances of a similar occurrence.

In addition, we are planning to install upgraded silencers during our fall outage. These improvements are intended to further reduce noise generated during planned shutdowns and startups, as well as during rare, unplanned upset conditions.

As promised during the public meeting, we are also working with the City of Glens Falls to implement more robust measures to reduce odors associated with biosolids deliveries. The City is increasing both the quantity and application of its oxidizer treatments, and WIN Waste has invested in additional odor control tools, including misters, deodorizers, and other mitigation systems.

We will continue to keep the lines of communication open, and we look forward to ongoing conversations with the community. We're committed to more frequent and transparent dialogue and to actively discussing our role as a responsible corporate partner moving forward.

As part of our continued outreach efforts, responses to questions received during the meeting are provided below.

GENERAL FACILITY & TITLE V INFORMATION

What is the Title V process?

To fulfill its mandate, the NYSDEC issues permits to commercial operators whose productions release emissions into the air. These permits allow NYSDEC to closely monitor the activities of these operators and ensure they are compliant with both the federal Clean Air Act standards and New York's own stringent Regulations for Air Emissions. Title V permits are on a five-year permit renewal schedule.

The NYSDEC has set new limits on NOx emissions that are lower than the current EPA limit. The new permit limits will reduce the facility's potential NOx emissions by 20%. Wheelabrator Hudson Falls LLC has submitted an application to the NYSDEC for a Title V Air Operating Permit renewal. Title V renewal is a multi-year process resulting in an 84-page submission for review.

Here are some examples of compliance points required under the Title V permit:
Use a continuous emissions monitoring system; follow emissions quality control in Appendix F of the CAA; staff trainings and certifications; monitor furnace temperature constantly; do not exceed emission standards; maintain proper carbon injection rates; limit particulate emissions; inspection-ready at all times; complete all reports; keep all records; gain approval for process changes; record all down times; report any permit deviations to the NYSDEC in a timely manner; and keep readily available daily reports of hourly averages.

Why did the Hudson Falls facility have to go through the required Public Participation Plan for its most recent Title V application and not for previous applications?

When renewing air permits previously, the facility did not need to go through the NYSDEC Public Participation Plan because it wasn't a requirement yet. It is our understanding that the Hudson Falls PPP is the first project in Region 5 to go through this new PPP template and process.

Why is only NOx emission limits being reduced and not others?

The EPA and NYSDEC apply rigorous scientific parameters to establish strict emission permit limits that safeguard public health, with consideration for protecting the most vulnerable populations.

While the NOx emission limit is currently the only emission limit being reduced, waste-to-energy remains one of the most highly regulated industries in the world and the federal and state permits are determined based on scientific evidence about lifetime exposure risks — including effects on vulnerable populations (children, elderly, people with asthma). Therefore, if you live near a facility for one year or 30 years, the emissions impact are accounted for and the facilities are deemed safe per regulatory bodies. The Clean Air Act requires the EPA to set National Ambient Air Quality Standards (NAAQS) for criteria pollutants that can negatively affect public health and the environment (Ozone, Particulate Matter, Sulfur Dioxide, NOx, Carbon Monoxide and lead). Some standards are annual averages (for long-term exposure), while others are daily or hourly (for short-term spikes). NAAQS are scheduled to be reviewed every five years; standards may not change but they are reviewed by the EPA on a five-year schedule basis.

With the MACT (Maximum Achievable Control Technology) standards which sets the maximum level of emissions control that can be achieved using the best-performing technologies and practices currently in use within an industry including emission limits, operational and maintenance practices, and monitoring and reporting requirements, the EPA uses inhalation risk assessments that estimate lifetime cancer and non-cancer risks. These assessments consider continuous exposure over 70 years and are used to guide rules for industrial sources under MACT (Maximum Achievable Control Technology). MACT sets the maximum level of emissions control that can be achieved by using technologies and practices currently in use within an industry.

Currently, in the Title V process, permits are being issued on a five-year cycle, and facilities must operate within limits that are based on maintaining compliance with long-term standards. If emissions from a facility would cause or contribute to violating NAAQS or increase cumulative risk beyond acceptable thresholds, additional measures would be taken to lower emissions below these thresholds. In the case of Hudson Falls, the NOx emission limit was lowered to improve air quality.

In addition to previous Title V renewals, Hudson Falls completed and submitted air dispersion modeling with this Title V permit renewal application. The modeling results demonstrate the Hudson Falls facility does not negatively impact air quality at the permitted levels.

The 1-hour and annual modeled impacts for co-pollutants were compared to NYSDEC's Short-term Guideline Concentrations (SGC), and Annual Guideline Concentrations (AGC) as provided in NYSDEC DAR-1 Guidelines for the Evaluation of Control of Ambient Air Concentrations Under 6 NYCRR Part 212. The results of the air quality modeling analyses demonstrate that the impacts of GHG co-pollutants are significantly below NYDEC's AGCs and SGCs in all Draft Disadvantaged and other nearby communities. The highest 1-hour average impact is less than 1% of the corresponding SGC. The highest annual impact is 15% of the AGC, while the average annual impact of all co-pollutants is 1.5% of the AGC. Based on the result of the air quality analyses, impacts of all co-pollutants are significantly below State guidelines that are fully protective of public health and the environment, demonstrating that current measures are fully mitigating impacts to disadvantaged communities.

Why is the Wheelabrator/WIN Waste Hudson Falls facility reducing emissions limits now and not before?

Federal and State regulations are regularly reviewed, monitored, reported on and if deemed necessary by these agencies' standards are updated. The federal and/or State regulations require detailed conditions and are created through actual emissions monitoring, data, environmental or community impact assessments or dispersion modeling, which all can be used to adjust certain permit limits, as needed. WIN Waste Hudson Falls meets all the strict requirements for operation and will continue to do so as adjustments are made based on changing conditions.

How can community members submit questions about the facility?

They can submit questions to Matthew Hebert at mhebert@win-waste.com or 207-615-4330.

When will the NYSDEC host its public hearing on Wheelabrator/WIN Waste Hudson Falls' Title V application? When does the public comment period begin?

NYSDEC has not released when the Public Comment period begins or for how long it will be open. When NYSDEC releases that information, we will distribute the information.

ENVIRONMENTAL JUSTICE & DISADVANTAGED COMMUNITY DESIGNATION

Is Hudson Falls designated as a Potential Environmental Justice Area and/or Disadvantaged Community? If so, when did that happen and why?

The New York State Department of Environmental Conservation (NYSDEC) designates Disadvantaged Communities (DACs) and Potential Environmental Justice Areas (PEJAs),and is best positioned to answer this question. They will be holding a public meeting where they can provide more detailed information.

We are aware that the Disadvantaged Communities (DAC) and Potential Environmental Justice Area (PEJA) designations stem from the Climate Leadership and Community Protection Act (CLCPA), which was enacted through state legislation and implemented by the New York State Department of Environmental Conservation (NYSDEC). For example, in Glens Falls, housing vacancy, industrial mining, chemical sites, scrap metal processing, wastewater discharge, and waste-to-energy are a few of the contributing factors that determined the DAC status. Here is a link where you can learn more: https://climate.ny.gov/Resources/Disadvantaged-Communities-Criteria

Hudson Falls was officially designated as a Disadvantaged Community (DAC) on March 27, 2023, when New York State's Climate Justice Working Group (CJWG) finalized the criteria for identifying such communities under the Climate Leadership and Community Protection Act (Climate Act).

This dual designation as both a PEJAs and a DAC means that facilities seeking permit renewals in the area are required to implement enhanced public participation plans to ensure community involvement. Wheelabrator Hudson Falls developed a public participation plan, which was approved by NYSDEC.

EMISSIONS MONITORING, ENVIRONMENTAL COMPLIANCE, OPERATING REPORTS & STACK TESTING PROCEDURES

What are the different emissions data/testing reports that Wheelabrator/WIN Waste submits to the NYSDEC? How often?

Wheelabrator Hudson Falls submits a range of emissions and compliance reports to the NYSDEC on a quarterly, semi-annual, and annual basis as part of a rigorous regulatory framework designed to ensure strict compliance with air quality standards and protect human health.

Like other forms of energy generation, waste-to-energy is highly regulated. Our team of 35 highly trained professionals oversee our plant's operations 24 hours per day and 365 days per year to ensure we are meeting the requirements of our operating permits. Below lists some of the many ways we ensure compliance and minimal emissions.

- **Stack testing:** Third-party experts conduct annual stack testing under the supervision of regulatory agency personnel.
- **Reporting and review:** We retain all the data we collect so it is readily available upon regulators' request or during unannounced visits, and we submit reports to regulatory agencies, quarterly, semi-annually and annually.
- **Air, water, and waste permits:** WIN Waste operates under state and federal permits that are granted only after a rigorous review process that includes public participation.
- **Continuous monitoring:** Our continuous emissions monitoring system (CEMS) collects data, 24/7/365, when the unit is operating. Any CEM downtime is reported to NYSDEC. Plant operators closely monitor the data collected to achieve limit requirements.
- **Scheduled maintenance:** Our multimillion-dollar maintenance budget keeps our plant running safely, efficiently, and in prime condition.
- **Personnel and oversight:** Our staff oversee our operations onsite 24/7/365. We have entire teams dedicated to operations, environmental compliance, and safety.

How does the facility report malfunctions?

We report to NYSDEC in multiple reports. Each report is based on a specific permit. Items that affect air quality are reported in Title V reports, items pertaining to Solid Waste are reported in the Solid Waste Report, items related to Storm Water or Cooling Water are reported in the State Pollutant Discharge Elimination System (SPDES) Permit Program reports.

How does the Wheelabrator/WIN Waste facility ensure that stack testing is accurate when the report shows only MSW and sewage sludge as the only waste used at the time of testing?

During stack testing, the waste being processed is the same type of waste we receive and process on a daily basis. MSW being fed to the boilers during testing is a mixture of all approved waste profiles, including industrial, whole tires, and pharmaceutical waste, which are all classified under MSW for the stack testing process and reporting. The only exception to the type of waste that would need to be reported separately is the biosolids which can make up to 10% of the waste.

Here's how the stack testing process works:

All tests are conducted under normal representative operating conditions in accordance with 40 CFR 60.8 Performance Tests. Wheelabrator, in partnership with the third-party qualified contractor, develops a pretest protocol. The protocol clearly outlines the conditions and test methods to be followed during stack testing. The New York State Department of Environmental Conservation (NYSDEC) reviews and approves our test plan in advance.

All waste delivered to our facility is unloaded on the tipping floor and then fed into the pit. Once in the pit, the waste is mixed and fed into the boiler. Although we accept waste on a daily basis, the pit can hold material from many weeks before the days of stack testing.

The NYSDEC observes the test on site to make sure the waste being combusted is typical of our normal operations and all aspects of the previously approved protocol are being followed — nothing is set aside or stockpiled for testing.

To confirm that the conditions during the test were completed under normal representative conditions, the facility monitors various process parameters and collects operating data required by the NYSDEC. This data is included in the stack test report.

Does the Wheelabrator/WIN Waste facility emit dust or black soot?

Dust or black soot is not emitted from the facility. We are stringently regulated and monitored and operate emission control equipment. Particulate matter is measured during the annual stack testing, and opacity, which is a very strong indicator of particulate, is constantly monitored through the use of a certified Continuous Opacity Monitor which uses an optical head and retroreflector to measure visible emissions which correlates to dust.

PUBLIC HEALTH & SAFETY

How is Wheelabrator/WIN Waste addressing the public's concern with noise and odor?

We maintain a robust repair and maintenance budget to ensure our facility operates safely, efficiently, and reliably. In fact, in the first quarter of this year we reached one of our highest levels of operational efficiency, with boiler availability at 91%. As outlined in our presentation and brochure, our emissions have also improved significantly over the past decade as we continue to beat the requirements of our operating permit.

In our most recent scheduled outage, we replaced a new bypass valve, which resulted in a noise issue earlier this year. We also sent all safety valves off-site to be bench tested and repaired, as needed, to further reduce the potential for a noise issue in the future. In the fall scheduled outage, we will be replacing the silencers which will also further reduce noise which occurs during steam venting.

As discussed in the meeting, we are working with our partners at Glens Falls on actions to reduce the impact of biosolid disposal through additional misters, deodorizers and more. We will continue to work with the City of Glens Falls to further mitigate the impact however, we are the only permitted site within a reasonable distance for safe disposal.

How does Wheelabrator/WIN Waste protect the community from PFAS?

At WIN Waste, we remain informed on the evolution of PFAS mitigation technology and participate in PFAS research to ensure safe, reliable waste disposal practices. These substances have been used extensively in the manufacturing of various consumer and industrial products, leading to their widespread presence in water, soil, and other environmental media, and the prevalence of PFAS makes it challenging to pinpoint specific sources of exposure.

Early research and continuing studies indicate that combustion at higher temperatures can achieve nearly total degradation or destruction of PFAS. With this in mind, WIN Waste is actively supporting ongoing scientific research to better understand PFAS through independent academic associations and regulatory agencies. We partner with industry organizations such as the Environmental Research and Education Foundation (EREF) and the Solid Waste Association of North America (SWANA) to explore emerging technologies and innovative solutions for PFAS treatment.

We adhere to all federal, state, and local regulations regarding PFAS management, ensuring our practices meet or outperform the required standards.

AMBIENT AIR QUALITY & CANCER RATES IN HUDSON FALLS

How does the NYSDEC determine new emissions limits and ambient air quality?

This question is better suited for the NYSDEC, as they are responsible for setting emissions limits and ambient air quality standards based on regulatory guidelines and scientific data designed to protect public health.

What is the closest weather station that the NYSDEC uses to monitor ambient air quality? Why was the Buffalo location selected?

NYSDEC set the parameters and locations to use for the survey.

Was there a study done by the Department of Health regarding elevated cancer levels in our area?

Yes, the New York State Department of Health conducted a local cancer study of the area and can be accessed here: https://www.health.ny.gov/diseases/cancer/docs/gcri_warren_2019_regional_meeting_final.pdf

The study's conclusions stated that:

- "Environmental factors evaluated in this study, including levels of radon in indoor air, environmental contaminants in outdoor air, contaminants in drinking water, industrial and inactive hazardous waste disposal sites, and proximity to traffic, **do not stand out** from those in other parts of NYS, excl. NYC."
- "It is likely that a higher proportion of current and former tobacco use contributed to the elevated rates of lung, laryngeal, esophageal, and oral cancers in Warren County. The elevations in the rates for these cancers were more often observed in men."
- "Alcohol consumption, independently or through a synergetic effect with tobacco use, might have contributed to the excess of oral, esophageal, and laryngeal cancers in Warren County, particularly among men."

- “HPV infection may have contributed to the oral cancer excess.”

2024 SMOKE EVENT

What happened at the facility during the smoke event in 2024?

The June Smoke event was caused by a Wall Scraper chain breaking in the Spray Dryer Absorber (SDA) while it was scraping interior walls. This caused the scraper ring to swing down on the remaining chains, striking the walls of the SDA. The Scraper Ring struck the SDA walls, causing the accumulated ash to fall all at once instead of at a metered rate. This material plugged the inlet to the SDA, preventing the flue gas from leaving via the boiler flues. The boiler combustion interlocks shut the combustion fans off.

It's our goal to operate efficiently; however, because of the technical nature of the plant, there are times when upset conditions occur. In those instances, we work as quickly and safely as possible to alert the proper authorities and identify and mitigate the issue. As referenced above, we also do a root cause investigation and make improvements through our procedures, processes and/or repair and maintenance program to ensure we are operating effectively.

Did the fire department show up? Does Wheelabrator/WIN Waste have its own fire department?

The Fire Chief was on-site for a short duration to determine the situation. There were no structure fires or fuel storage fires. All normal operating combustion fires were contained within the combustion zones of the boilers.

The site does not have its own fire department but does train all Operations and Maintenance personnel in proper firefighting equipment use and procedures for fighting incipient stage fires.

How can the community be sure that the smoke event was safe? Did the smoke go through continuous emissions monitoring?

The community can feel safe because of the NYSDEC’s permit structure and emergency response protocols to ensure protection. Permits require that the NYSDEC be notified of upset conditions within certain time frames, as well as a detailed report on the estimated impact when the emissions are not traveling the normal path of emission controls. For instance, the smoke event referenced above did not go through the continuous emissions monitoring system because the smoke was evacuated through the building. However, the incident was a brief smoke event, and the impact was mitigated quickly. NYSDEC determined the facility took immediate corrective actions and later submitted detailed reports on the cause of both incidents as well as estimates of the facility’s emissions, as required by the Department after the incidents.

Can this response or reporting be exact?

While the impact cannot be exactly monitored in real time, short exposure to a smoke event does not pose a significant risk because of its duration and quick dissipation. We cannot estimate the exact composition of the material at that time, but we were able to use historical data from both the stack testing and CEMS system to calculate a data-driven estimate, as was provided in the reporting and response to the NYSDEC.

WASTE TYPES, HANDLING & ENERGY GENERATION

What types of waste does the facility process?

Most of the waste (89%) processed at Hudson Falls is post-recycled municipal solid waste — the types of things average households and businesses discard daily. A small percentage of the waste processed includes industrial waste such as biosolids, pharmaceuticals, and tires, which are acceptable materials under the facility's solid waste permit. NYSDEC ensures that, regardless of what type of waste gets processed, the facility's emissions remain within its permitted limits. Permit compliance can assure the public that the plant is operating safely for both people and the environment.

How much natural gas does the Wheelabrator/WIN Waste Hudson Falls facility consume?

In 2023, the facility used just over 1 million cubic feet (CF) of natural gas. While that number may seem large, the percentage is only around 6% of heat input was produced from natural gas, while 94% is from MSW. Natural gas is only used for start-up to preheat the furnace after an outage, during shutdown to minimize CO emissions, and, more rarely, when waste is excessively wet. The method that the NYSDEC and the EPA use is based on heat input to the boilers, and again, natural gas is a minimal portion of our thermal energy being produced.

Why does the Wheelabrator/WIN Waste Hudson Falls facility take in waste from other communities, as far away as Canada?

For the sake of optimization of time, fuel, and other resources, waste is regularly disposed of near the point of creation or collection. However, there are times when facilities further away are the safest and most reliable method for disposal, or the only infrastructure to be permitted to do so. No matter what type of waste the facility receives within the constraints of its permits, we still operate well below the safe emissions levels set forth and regulated by the EPA and the NYSDEC.

WASTE-TO-ENERGY INDUSTRY & FUTURE OF THE HUDSON FALLS FACILITY

When is the Wheelabrator/WIN Waste facility expected to close? Has it exceeded its lifespan?

While some mention an expected lifespan on “incinerators,” there is no timeline for a well-run and well-maintained waste-to-energy facility. There are facilities in Europe and the US that are able to operate for more than 50 years and counting. In the first quarter of this year, Hudson Falls facility had one of its most efficient operating quarters of its lifetime, measured by the boiler availability percentage in the low 90s. As referenced in the presentation, our emissions output levels last year are also lower than previous years, and significantly below what permitted levels allow. WIN Waste invests significantly in the facility’s repair and maintenance budget to ensure the facility will operate safely and efficiently for the foreseeable future.

Why are there not a lot of new waste-to-energy facilities being built in the United States?

In 2015, a waste-to-energy facility was built in Palm Beach, FL and across Europe, the UK, Asia and South America, more waste-to-energy facilities are being constructed or will soon be operating. Countries that have more constraints on land and prefer not to build landfills continue to utilize waste-to-energy as part of the solution to circularity. There are nearly 600 waste-to-energy facilities in the European Union and more than 60 in the United States.

While New York State projects that even with quadrupling the amount of recycling that will likely occur, the State will still produce more than 18 million tons of trash per year, as projected by the NYSDEC Solid Waste Management Plan. Waste-to-energy remains the EPA and NYSDEC's preferred method of end disposal over landfilling and thus will remain a solution for waste reuse, landfill diversion and greenhouse gas avoidance.

For more information about Wheelabrator Hudson Falls LLC, please visit www.winwastehudsonfalls.com.

THANK YOU,

Wheelabrator Hudson Falls LLC & WIN Waste Innovations