

By: Ralph Atchue
through Supervisor Miller FTR



Information Packet for Pinal County Board of Supervisors

Proposed Freepoint Eco-Systems Plastic Pyrolysis Plant

Prepared by: Kevin Greene

Working Session: February 11, 2026 #1

Summary

The Freepoint Eco-Systems plastic pyrolysis plant in Hebron, Ohio, has faced numerous documented air permit violations over the past year. These include visible smoke emissions, exceedances of permitted levels of particulate matter, the use of unpermitted equipment, and a failure to report pollution control malfunctions as required by law. The majority of these incidents have been identified by community groups and subsequently confirmed through enforcement actions by the Ohio Environmental Protection Agency (Ohio EPA). Collectively, these events underscore ongoing challenges with emissions control and regulatory compliance at the facility.

On a broader scale, the plastic pyrolysis and chemical recycling industry continues to experience significant technical, financial, and operational instability. Many facilities in this sector have struggled to maintain continuous operations, produce consistent and reliable products, or achieve economic viability. Several U.S. pyrolysis plants have closed in recent years as a result of these persistent challenges, highlighting industry-wide issues with safety, waste management, and profitability.

Permit Violations at Freepoint Hebron, Ohio Plant

The Freepoint Eco-Systems plastic pyrolysis facility in Hebron, Ohio, has received multiple citations for air permit violations. These issues have been formally identified by the Ohio EPA and cited by local environmental groups that monitor enforcement actions. Violations primarily relate to noncompliance with Ohio air permit requirements and state regulations, particularly concerning emissions control, monitoring, malfunction reporting, and adherence to approved pollution control technologies.

Chronology of Reported Violations and Compliance Incidents

- February 2025 — First Public Reports of Visible Emissions and Investigation: Community members captured video evidence of dark or black smoke plumes emanating from the Freepoint stacks. This generated significant local and press attention. Responding to these concerns, the Ohio EPA conducted an inspection on February 13, 2025, to assess opacity and visible emissions as well as other potential violations. Ohio EPA issued a Notice of Violation (NOV) in March 2025, which was cited in community sources.
- Summer/Early 2025 — Particulate Matter (PM) Exceedances: Following the initial inspection and increased public scrutiny, the facility was reportedly found to have exceeded permitted limits for particulate matter emissions. This resulted in additional non-compliance notices. The exact dates of these PM exceedance NOVs are noted as occurring earlier in 2025.
- February 12 – June 30, 2025 — Unpermitted Venting Events: In a compliance report submitted on August 29, 2025, Freepoint disclosed 79 separate occasions between February 12 and June 30, 2025, in which volatile gases were vented to an unpermitted flare, rather than the required vapor combustors. This practice constituted a violation of the facility's air permit, with some events reportedly lasting up to 59 hours.
- November 4, 2025 — Official Ohio EPA NOV: Based on the August 29 report and the documented unpermitted venting incidents, the Ohio EPA issued an official NOV to Freepoint. The NOV cited the facility's failure to comply with its permit by venting volatile organic compound-laden process gases to an unpermitted flare instead of the permitted control devices. This violation was publicly characterized as the third air permit violation within approximately one year, with earlier violations associated with particulate emissions.
- December 3–12, 2025 — Multiple Visible Emissions and Other Permit Violations: Ohio EPA inspectors observed visible emissions exceeding permitted particulate limits on December 3, 4, 10, and 12, 2025. During this period, Freepoint reported malfunctions of pollution control equipment from December 2–15, 2025, but did not immediately notify the Ohio EPA as required, resulting in another violation of permit conditions. The company was further cited for using an unpermitted hydrochloric acid (HCl) control system and failing to conduct mandatory emissions testing for both HCl and particulate matter.

Reported Overall Totals

Community sources have indicated that the Ohio EPA has issued at least four separate Notices of Violation to Freepoint over the past year, through late 2025, relating to air permit compliance.



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Prepared by: Kevin Greene

Working Session: February 11, 2024

Summary

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On a broader scale, the plastic pyrolysis and chemical recycling industry continues to experience significant technical, financial, and operational instability. Many facilities in this sector have struggled to maintain continuous operations, produce consistent and reliable products, or achieve economic viability. Several U.S. pyrolysis plants have closed in recent years as a result of these persistent challenges, highlighting industry-wide issues with safety, waste management, and profitability.

Permit Violations at Freepoint Hebron, Ohio Plant

The Freepoint Eco-Systems plastic pyrolysis facility in Hebron, Ohio, has received multiple citations for air permit violations. These issues have been formally identified by the Ohio EPA and cited by local environmental groups that monitor enforcement actions. Violations primarily relate to noncompliance with Ohio air permit requirements and state regulations, particularly concerning emissions control, monitoring, malfunction reporting, and adherence to approved pollution control technologies.

Notes and Context

The incident summaries provided above are drawn from community reporting—such as from Buckeye Environmental Network and Moms Clean Air Force—as well as Ohio EPA NOVs, which are listed in Attachment A. Some of the early community reports, including the video captured in February 2025, reference enforcement actions but do not include publicly accessible citation details from the Ohio EPA.

Technical and Financial Instability in the Plastic Pyrolysis and Chemical Recycling Sector

Despite more than a decade of efforts, plastic pyrolysis technology continues to face significant challenges in achieving reliable, safe, and profitable operation. The technology itself is unstable and the economic outlook remains uncertain.

1. **Operational Difficulties:** Many pyrolysis and chemical recycling facilities are unable to operate continuously. Frequent shutdowns occur due to equipment problems, unstable chemical reactions, or clogged systems. While short tests or pilot runs are possible, scaling up to full-time, 24/7 operations have proved challenging.
2. **Challenges in Processing Real Plastic Waste:** Household plastic waste is often dirty, mixed, and unpredictable. The presence of food residue, labels, additives, and chlorine-containing plastics can cause breakdowns and damage equipment. As a result, many facilities quietly rely on clean industrial plastic scraps instead of community waste, undermining claims that they address local trash issues.
3. **Unreliable Product Output:** Pyrolysis processes convert plastic into oil, not new plastic. The resulting oil is frequently off-spec, contaminated, or inconsistent in quality, containing chlorine, nitrogen, metals, and unstable compounds. This oil typically cannot be used directly to make new plastic and must be heavily diluted with petroleum naphtha before manufacturers can use it. In practice, several tons of petroleum naphtha may be required to process a single ton of pyrolysis oil. Buyers can refuse the product, demand discounts, or decline to purchase altogether, leaving facilities with unsellable material. Therefore, this process cannot be considered true plastic-to-plastic recycling, as it remains heavily dependent on fossil fuels.
4. **High Costs of Construction and Operation:** Pyrolysis plants are extremely expensive to build and frequently exceed initial budget estimates. Operating costs remain high even when facilities are not running at full capacity, with substantial expenses for energy, maintenance, specialized staff, and frequent shutdowns.

5. Shutdowns, Bankruptcies, and Closures: Over the past decade, numerous chemical recycling projects have declared bankruptcy, shut down permanently, or been sold off at a loss. These failures are not isolated exceptions but reflect a consistent pattern across the industry.
6. Fire and Accident Risks: Pyrolysis processes operate at very high temperatures with flammable gases, creating a heightened risk of fires, explosions, and emergency shutdowns. Each incident results in extended downtime, increased insurance costs, and lost revenue.
7. Hazardous Waste and Hidden Costs: The plants generate toxic byproducts such as contaminated ash, sludge, wastewater, and unusable oil. Proper disposal of this waste is expensive and increases long-term liabilities.
8. Reliance on Continuous Operation for Financial Viability: Pyrolysis facilities require near-constant operation to meet financial obligations and pay off investors. Any pause in operations—no matter how brief—can result in rapid accumulation of financial losses. Unlike mechanical recycling or composting, there is little margin for error in these systems.

Facility Closures in the United States

The following table summarizes U.S. plastic pyrolysis and thermal chemical recycling facilities that have shut down or ceased operations over the past decade (approximately 2016–2026). The focus is on facilities that were operational and subsequently closed, not those that were cancelled before opening.

Facility Name	Location (State)	Primary Process	Status/Closure	Notes & Sources
Regenyx (Agilyx/AmSty)	Tigard, Oregon	Pyrolysis / chemical recycling	Closed (2024)	Plant shut down after failing to reach planned capacity.
New Hope Energy / Trinity Oaks	Tyler, Texas	Pyrolysis / chemical recycling	Ceased operations (2024)	Reported closure after technical/financial issues.
Fulcrum BioFuels (Sierra Plant)	Near Reno, Nevada	Pyrolysis / waste-to-fuel	Closed (2024)	Shuttered amid financial and operational problems.
Renewlogy / PK Clean plant	Salt Lake City, Utah	Pyrolysis / plastic-to-fuel	Stopped operations (~2020)	Plant stopped taking material; activity largely inactive after 2019–2020.

Total confirmed shutdowns (operating pyrolysis facilities): ~4

Notes and Clarifications

- Regenyx (Oregon) closed in 2024 after limited throughput and financial losses. Source: <https://www.beyondplastics.org/press-releases/oregon-chemical-recycling-facility-closes-3-6-24?utm>
- New Hope (Texas) ceased operations in 2024; publicly noted as a site that has shut down. Source: https://oilandgaswatch.org/alert/rec_csh4254jb6kopvaqhvh0?utm
- Fulcrum (Nevada) closed in 2024; media reports describe layoffs and site shutdown. Source: <https://www.ehn.org/chemical-recycling-plant-closes?>
- Renewlogy (Utah): operations wound down around 2019–2020; the plant stopped active processing and participation in municipal recycling programs. Source: <https://news.trust.org/item/20210729110301-o796h?utm>



October 18, 2024

Joseph Manglicmot
Freepoint Eco-Systems
3050 Post Oak Blvd.
Houston, TX 77056

**Re: Freepoint Eco-Systems Hebron
Notice of Violation (NOV)
Air Permit
Licking County
0145000580**

Subject: Notice of Violation

Dear Joseph Manglicmot:

On October 17, 2024, Ohio EPA's Central Office performed a site visit at Freepoint Eco-Systems Hebron (Freepoint) in response to a dust complaint. The site visit included a review of facility operations to determine compliance with state air pollution rules and regulations.

Findings

Ohio EPA identified the following violations of the Ohio Revised Code (ORC) and Ohio Administrative Code (OAC). In order to bring your facility into compliance, we recommend promptly addressing these violations within 30 days of your receipt of this letter.

1. ORC 3704.05(G): *"No person shall violate any order, rule, or determination of the director issued, adopted, or made under this chapter."*

OAC rule 3745-31-02(A)(1)(b): *"... no person shall cause, permit, or allow the... installation, or modification and subsequent operation of any new source... without first obtaining a PTIO..."*

- a. Freepoint is operating a raw material processing operation that consists of 5 shredders, several sorting operations, and associated conveyors. In the original permit application that was submitted on December 9, 2021, plastic shredding meeting the de minimis exemption in OAC rule 3745-15-05 was only portion of the raw material processing operation that was identified. Based on the amount of visible particulate matter emitted, Ohio EPA has determined that the raw material processing operation does not qualify for the de minimis exemption in OAC rule 3745-15-05.
- b. Following the raw material processing operation, the shredded plastics are sent to one of four cubers that heat the material and extrude it into cubes that will be fed to the pyrolysis kilns. The cubers were not identified in any of Freepoint's air pollution permit applications. Characterization and quantification of emissions from the cubers is needed to determine whether they require a permit.

c. Requested actions: Within 30 days of receipt of this letter, Freepoint shall submit a compliance plan that explains how the facility will ensure that they obtain all required air pollution permits for their operations.

Conclusion

The Ohio EPA requests that Freepoint promptly undertakes the necessary measures to return to compliance with Ohio's environmental laws and regulations. Within 30 days of receipt of this letter, please provide to Ohio EPA the documentation requested above. If you have already resolved the violations listed above thank you, and please provide documentation supporting compliance. Documentation of steps taken to return to compliance includes written correspondence, updated policies, and photographs, as appropriate.

If circumstances delay resolution of violations, Freepoint shall submit written correspondence describing the steps that will be taken and dates when compliance will be achieved. Please note that the submission of any requested information to respond to this letter does not constitute waiver of the Ohio EPA's authority to seek relief as provided in ORC 3704.06.

Thank you for your time and cooperation and if you have any questions, please do not hesitate to contact me by phone at (614) 728-3810 or by e-mail at pamela.mccoy@epa.ohio.gov.

Sincerely,

Pam McCoy

Pam McCoy
Environmental Specialist, Permitting and Compliance
Division of Air Pollution Control

Delivered via email: jmanglicmot@freepoint.com

cc: Samira Deeb and Stephanie Habinak, DAPC/CO

cc: Zach Peterson and Josh Koch, DAPC/CO

Brian Dickens, U.S. EPA

Bob Gwaltney and Justin Tucker, Freepoint Eco-Systems Hebron

March 7, 2025

**Re: Freepoint Eco-Systems Hebron
Notice of Violation (NOV)
Air Permit
Licking County
0145000580**

Bob Gwaltney
Freepoint Eco-Systems Hebron
522 Milliken Dr.
Hebron, OH 43025

Subject: Notice of Violation

Dear Bob Gwaltney:

On February 13, 2025, Ohio EPA's Central Office performed a site visit at Freepoint Eco-Systems Hebron (Freepoint) in response to complaints about black smoke coming from the combustor stacks. While on-site, Ohio EPA staff witnessed violations of Ohio's visible particulate emission limitations for stack emissions.

Findings

Ohio EPA identified the following violations of the Ohio Revised Code (ORC) and Ohio Administrative Code (OAC). In order to bring your facility into compliance, we recommend promptly addressing these violations within 30 days of your receipt of this letter.

1. **ORC 3704.05(G):** *"No person shall violate any order, rule, or determination of the director issued, adopted, or made under this chapter."*
2. **OAC rule 3745-17-07(A)(1)(a):** *"Except as otherwise specified in paragraphs (A)(1)(b), (A)(2) and (A)(3) of this rule, visible particulate emissions from any stack shall not exceed twenty per cent opacity, as a six-minute average."*
 - a. On February 13, 2025, Ohio EPA Central Office inspector, Pam McCoy, performed visible emission observations on emissions unit P001's vapor combustor stack in accordance with U.S. EPA Method 9. From 12:19 p.m. to 1:18 p.m., Pam McCoy documented 81 instances when the six-minute average opacity exceeded twenty percent.
 - b. **Requested actions:** Within 30 days of receipt of this letter, Freepoint shall submit a compliance plan that explains how the facility will ensure compliance with the visible particulate emission limitation specified in OAC rule 3745-17-07(A)(1).

Conclusion

The Ohio EPA requests that Freepoint promptly undertakes the necessary measures to return to compliance with Ohio's environmental laws and regulations. Within 30 days of receipt of this letter, please provide to Ohio EPA the documentation requested above. If you have already resolved the violations listed above thank you, and please provide documentation supporting compliance. Documentation of steps taken to return to compliance includes written correspondence, updated policies, and photographs, as appropriate.

If circumstances delay resolution of violations, Freepoint shall submit written correspondence describing the steps that will be taken and dates when compliance will be achieved. Please note that the submission of any requested information to respond to this letter does not constitute waiver of the Ohio EPA's authority to seek relief as provided in ORC 3704.06.

Thank you for your time and cooperation and if you have any questions, please do not hesitate to contact me by phone at (614) 728-5043 or by e-mail at samira.deeb@epa.ohio.gov.

Sincerely,



Samira Deeb
Supervisor, Permitting and Compliance
Division of Air Pollution Control

Delivered via email: bgwaltney@freepoint.com

cc: Pam McCoy, Morgan Fissel, and Stephanie Habinak, DAPC/CO
Zach Peterson and Josh Koch, DAPC/CO
Brian Dickens, U.S. EPA
Joseph Manglicmot, Freepoint



December 18, 2025

Transmitted Electronically

Bob Gwaltney
Freepoint Eco-Systems
522 Milliken Dr
Hebron, OH 43025

**Re: Freepoint Eco-Systems Hebron
Notice of Violation (NOV)
Air Permit
Licking County
0145000580**

Subject: Notice of Violation

Dear Bob Gwaltney:

During the weeks of December 1 and December 8, 2025, Ohio EPA's Central District Office identified violations of Freepoint Eco-Systems Hebron (Freepoint)'s permit-to-install and operate (PTIO), the Ohio Administrative Code (OAC), and the Ohio Revised Code (ORC).

Findings

- 1. ORC 3704.05(C):** *"No person who is the holder of a permit issued under division (F) or (G) of section 3704.03 of the Revised Code shall violate any of its terms or conditions."*

PTIO P0134326 Term C.2.b)(1)a.: *"Visible particulate emissions from any stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by rule."*

- On December 3, December 4, and December 12, 2025, Ohio EPA Central Office inspector documented exceedances of the visible particulate emissions limitation through visible emission observations performed on emissions unit P002's vapor combustor stack in accordance with U.S. EPA Method 9. On December 10, 2025, Ohio EPA Central Office inspector documented exceedances of the visible particulate emissions limitation through visible emission observations performed on emissions units P001 and P002's vapor combustors stacks in accordance with U.S. EPA Method 9.
- Requested actions: Within 30 days of receipt of this letter, Freepoint shall submit a compliance plan that explains how the facility will ensure compliance with the visible particulate emissions limitation.

- 2. ORC 3704.05(C):** *"No person who is the holder of a permit issued under division (F) or (G) of section 3704.03 of the Revised Code shall violate any of its terms or conditions."*

PTIO P0134326 Term A.10: *"Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?"*

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Ohio EPA DAPC, Central District Office in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.”

OAC rule 3475-15-06(B): “Malfunctions shall be reported as follows:

(1) If a malfunction occurs, the person responsible for the equipment in question shall immediately notify the Ohio EPA district office or delegate agency of such malfunction via telephone or email. Giving notice is not an admission or proof of a violation of any specific emissions limitation, standard or permit term. If the malfunction continues for more than twenty-four hours, the source owner or operator shall provide a written statement to the director within one week of the date the malfunction occurred and include in both the immediate notification and written statement the following:

(a) The name of the owner or operator of the regulated entity experiencing the malfunction event and the Ohio EPA facility identification number.

(b) The identification and location of such equipment including the Ohio EPA emissions unit identification number for each air pollution source involved in the malfunction.

(c) A summary of the event which caused the malfunction to occur.

(d) The estimated or actual duration of malfunction.

(e) The nature and estimated quantity of regulated air contaminants which have been or may be emitted into the ambient air during the malfunction period.

(f) Any adverse impacts to human health or the environment as a result of the malfunction that have been identified.

(g) Statements demonstrating the following:

(i) Shutdown or reduction of source operation during the malfunction period will be or would have been impossible, impractical, or unsafe (if applicable).

(ii) The estimated malfunction period will be or was reasonable in duration based on installation or repair time, delivery dates of equipment, replacement parts, or materials, or current unavailability of essential equipment, parts, materials, or personnel.

(iii) Available alternative operating procedures and interim control measures will be or have been implemented during the malfunction period to reduce adverse effects on public health or welfare.

(iv) All actions necessary and required by any applicable preventive maintenance and malfunction abatement plan will be or have been implemented.

(2) The Ohio EPA district office or delegate agency shall be notified when the condition causing the malfunction has been corrected and the equipment is again in normal operation. Notification of the correction of the condition causing the malfunction may be given verbally if the duration of the malfunction is twenty-four hours or less or in writing if the duration exceeds twenty-four hours.

- a. As discussed under Finding 1 above, Ohio EPA documented exceedances of emissions unit P002's visible particulate emissions limitation on December 3 and December 4, 2025. Based on discussions with the facility, these exceedances occurred as a result of malfunctions associated with the operation of the sponge oil absorber. On December 17, 2025, Freepoint emailed Ohio EPA a Consolidated Malfunction Report identifying seven additional malfunctions that occurred from December 2 through December 15, 2025. Freepoint did not provide immediate notification of the information required by OAC rule 3475-15-06(B) for these nine malfunction events.
- b. Requested actions: Within 30 days of receipt of this letter, Freepoint shall submit a compliance plan that explains how the facility will identify malfunctions and ensure that they are reported in accordance with OAC rule 3745-15-06(B).

3. **ORC 3704.05(C):** *"No person who is the holder of a permit issued under division (F) or (G) of section 3704.03 of the Revised Code shall violate any of its terms or conditions."*

PTIO P0134326 Term C.2.c)(5): *"The pyrogas that is generated by the pyrolysis unit shall be vented to the scrubber at all times when the emissions unit is in operation."*

PTIO P0134326 Term C.2.d)(4): *"In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range or limit for the pressure drop across the scrubber, the liquid flow rate, and the liquid pH shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for each parameter is established to demonstrate compliance."*

- a. During a site visit on December 2, 2025, Freepoint stated that they are not using the scrubber to control HCl emissions. Instead, they have determined that the water in their liquid ring compressor system is absorbing HCl from the process gas.
- b. Requested actions: Within 30 days of receipt of this letter, Freepoint shall submit a technical description of the HCl control system as well as the operating parameter(s) that are monitored to ensure its proper operation.

4. **ORC 3704.05(C):** *"No person who is the holder of a permit issued under division (F) or (G) of section 3704.03 of the Revised Code shall violate any of its terms or conditions."*

PTIO P0134326 Term C.2.f)(1): *"a. Emissions testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.*

b. Emissions testing shall be conducted to demonstrate compliance with the hourly VOC, NO_x, and HCl emissions limitations, the PE limitation, the minimum VOC control efficiency requirements for the vapor combustors, and the dioxins/furans (total mass basis) emissions limitation."

- a. On December 2 through 4, 2025, Freepoint performed testing on emissions unit P002. The testing included all pollutants required by the permit except for PE and HCl.
- b. Requested actions: Within 30 days of receipt of this letter, Freepoint shall submit an "Intent to Test" notification for the required PE and HCl testing.

Conclusion

The Ohio EPA requests that Freepoint promptly undertakes the necessary measures to return to compliance with the applicable environmental laws and regulations. Within 30 days of receipt of this letter, please provide to Ohio EPA the documentation requested above. If you have already resolved the violations listed

above thank you, and please provide documentation supporting compliance. Documentation of steps taken to return to compliance includes written correspondence, updated policies, and photographs, as appropriate.

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Thank you for your time and cooperation and if you have any questions, please do not hesitate to contact me by phone at (614) 728-3810 or by e-mail at pamela.mccoy@epa.ohio.gov.

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Environmental Specialist, Permitting and Compliance
Division of Air Pollution Control

Delivered via email: bgwaltney@freepoint.com

cc: Samira Deeb and Stephanie Habinak, DAPC/CO
Zach Peterson and Josh Koch, DAPC/CO
Brian Dickens, U.S. EPA
Joseph Manglicmot, Freepoint Eco-Systems Hebron

- Citations



[Buckeye Environmental Network](#)

[**Freepoint Eco-Systems Hebron Pyrolysis Plant Violates Air ...**](#)

November 24, 2025 — Nov 24, 2025 — Freepoint Eco-Systems repeatedly used unpermitted pollution control technology to reduce VOC emissions from its Hebron pyrolysis plant.
https://benohio.org/freepoint-eco-systems-pyrolysis-plant-violation/?utm_source=chatgpt.com



Freepoint Eco-Systems Hebron Pyrolysis Plant Violates Air Permit for the Third Time in One Year

November 24, 2025 / By Cat Adams

On August 29, 2025, Freepoint Eco-Systems Hebron quietly sent the Ohio EPA its Initial Compliance Status Report for the distillation unit at the company's plastic pyrolysis plant in Licking County, Ohio. This is standard practice: the Ohio EPA requires Freepoint Eco-Systems to submit periodic reports to prove that they are complying with environmental standards.

However, in this case, the report proved the opposite: Freepoint Eco-Systems jeopardized public health by violating its operating permit and federal air pollution requirements. The company used unsanctioned pollution control technology to remove volatile organic compounds (VOCs) from emissions from the distillation unit.

On November 4, the Ohio EPA sent Freepoint Eco-Systems Hebron an official notice of violation. To return to compliance, Freepoint Eco-Systems must send the Ohio EPA its plan to meet the requirements of the plant's operating permit and federal law by December 4, 2025.

In order to minimize the volatile organic compounds (VOCs) emitted by the facility, the Ohio EPA requires Freepoint Eco-Systems to vent the gaseous byproducts of the pyrolysis process to vapor combustors, where the gas is burned, destroying most of the VOCs and producing heat energy for the plant in the process. The operating permit

makes it abundantly clear: while the distillation unit is operating, these gases must be vented to the vapor combustors at all times.

But when the EPA reviewed the report, they found that Freepoint Eco-Systems had repeatedly violated its permit and vented gas to the flare—not the vapor combustors.

Freepoint Eco-Systems reported **79 separate events** between February 12th and June 30th when the company vented the process gas to the flare instead of the vapor combustors. These events spanned from **30 minutes to 59 hours**—almost 2 and a half days.

Vapor combustors are a closed vent system, but flaring involves burning **waste gases outdoors in an open flame**. As a result, flaring is **less efficient**, and results in more noise and light pollution.

To make matters worse, because this process was not permitted, Freepoint Eco-Systems has not performed the necessary testing, monitoring, and reporting to prove that flaring reduces the plant's VOC emissions to a safe level. These repeated and significant violations put public health and the environment at risk.

VOC pollution is a serious threat to **both indoor and outdoor air quality**. Workers exposed to high concentrations of VOCs are at risk of **adverse health impacts**, including headaches, nausea, and liver, kidney, and central nervous system damage. Some VOCs, like **formaldehyde and benzene**, are known human carcinogens.

When released into the outside air, VOCs can react with nitrogen oxides to form **ground-level ozone**, a Criteria Air Pollutant that the US EPA regulates under the Clean Air Act. Ground-level ozone has been linked to respiratory issues such as asthma. And according to the US EPA, even relatively low levels of ground level ozone can cause negative health impacts. Children are at the greatest risk, because their lungs are still developing. Troublingly, **6% of the population** within 3 miles of the Hebron plant is under the age of 5, and thus particularly vulnerable to air pollution from the pyrolysis plant.

This isn't Freepoint-Ecosystems' first offense, either. The Hebron plant has only been operational for a year, but it has **two other air permit violations** on its record due to excessive particulate matter emissions.

In spite of these existing issues, Freepoint Eco-Systems **announced** plans to expand the pyrolysis plant's polluting activities by launching a pilot project that will “chemically recycle” polyvinyl chloride (PVC) plastic into petrochemical feedstocks at the Hebron facility. PVC plastic is produced from the highly toxic chemical vinyl chloride—the **same**

chemical that was released into the environment after a train derailment in East Palestine, with devastating consequences.

The new “chemical recycling” technology was developed by Plastic Back, an Israeli company. This pilot project is funded by the Vinyl Institute, a US trade association representing the PVC industry, and the US-Israel Bird Foundation. The plastics and chemical industries are backing chemical recycling, not because it works, but because it provides a greenwashed front for big companies to continue ramping up plastic production.

The fossil fuel industry is also deeply invested in this false solution. Freepoint Eco-Systems sells all of the pyrolysis oil produced by the Hebron plant to to Shell for use in its refining complexes in Pennsylvania and Louisiana, due to a long-term supply contract between the two companies.

The people of Ohio need real solutions to climate change and the plastic pollution crisis, not more speculative technologies that burden vulnerable communities with hazardous air pollution and waste. It's clear that Freepoint Eco-Systems is incapable of meeting their existing obligations to the community of Hebron. Freepoint Eco-Systems must not be given further license to pollute in Licking County.



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Freepoint Hebron Cited for 3rd Air Violation as They Plot Toxic PVC Expansion

by Buckeye Environmental Network

NOVEMBER 25, 2025



While regulators catch them venting gas for 60 hours straight, the company pushes "chemical recycling" pilot with East Palestine chemical.

HEBRON, OH — In case you missed it, the Buckeye Environmental Network is exposing a critical public health failure in Licking County. Freepoint Eco-Systems has been slapped with its third air permit violation in a single year by the Ohio EPA.

While this company quietly admitted to illegally venting volatile chemicals 79 times, they are simultaneously seeking to expand their facility to "recycle" PVC—a process involving the same toxic chemical behind the East Palestine disaster.

THE FACTS MEDIA OUTLETS ARE MISSING:

1. A 60-Hour Chemical Release This wasn't a minor leak. Between February and June 2025, Freepoint bypassed their mandatory vapor combustors 79 separate times.

- One single event lasted 59 hours—nearly two and a half days of continuous, unpermitted venting to an open flare.
- This is the third time in 12 months they've been cited (previous violations were for excessive particulate matter).

2. The PVC/East Palestine Connection Despite their inability to manage current emissions, Freepoint is pushing a pilot project to "chemically recycle" Polyvinyl Chloride (PVC) using tech from Israeli company Plastic Back.

- The Risk: PVC is made with vinyl chloride—the exact carcinogen released during the [East Palestine train derailment](#).
- The Funders: This reckless experiment is being bankrolled by the Vinyl Institute, the trade association for the very industry flooding our world with plastic.

3. The Shell Oil Pipeline Freepoint isn't just a local bad actor; they are a cog in the Big Oil machine. All pyrolysis oil produced at this Hebron plant is sold directly to Shell for use in refining complexes in Pennsylvania and Louisiana. This isn't recycling; it's a fossil fuel life-support system.

4. Targeting the Most Vulnerable Freepoint's illegal releases of Volatile Organic Compounds (VOCs) create ground-level ozone.

- Data Point: 6% of the population living within 3 miles of this plant is under the age of 5. These children are [legally the most vulnerable](#) to ozone-induced lung damage, and Freepoint is operating in their backyard without playing by the rules.

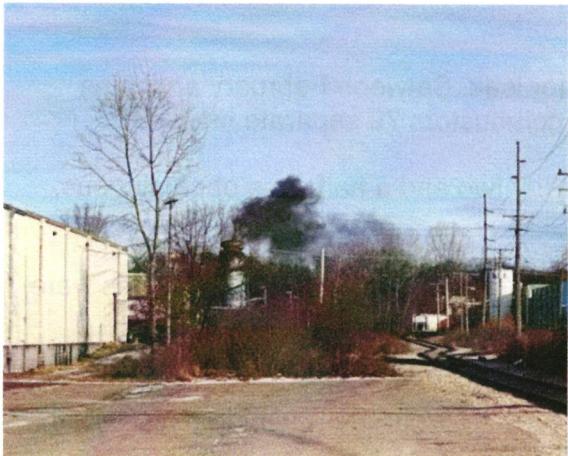
QUOTE: "We see this for what it is: A company failing basic environmental compliance while simultaneously trying to push a toxic expansion project funded by plastic lobbyists. Freepoint is a threat to public health, period." — Buckeye Environmental Network

The Bottom Line: We are calling for an immediate halt to any expansion permits. If Freepoint can't follow the rules for their current feedstock, they have no business handling PVC.

Read the full breakdown and see the violation notice: <https://benohio.org/freepoint-eco-systems-pyrolysis-plant-violation/>

About Buckeye Environmental Network

We are a grassroots coalition fighting for environmental justice and public health in Ohio. We expose the false promises of the petrochemical industry and stand with communities against toxic exploitation.



Unpermitted and Unchecked: Why Freepoint's Noncompliance Threatens Ohio's Air

January 29, 2026 / By Cat Adams, Buckeye Environmental Network

The Freepoint Eco-Systems plastic pyrolysis plant in Hebron has, yet again, violated Ohio's environmental laws. During the first two weeks of December, almost immediately after Freepoint submitted their latest plan to return to compliance, an Ohio EPA inspector reported Freepoint for multiple violations of their air permit and state law.

The violations include exceeding particulate matter limitations and failing to notify the EPA of malfunctions. Additionally, the facility was cited for using an unpermitted HCl control system and failing to perform required emissions testing for both HCl and particulate matter.

On four different occasions between December 3rd and the 12th (*Dec 3rd, 4th, 10th, and 12th*), an Ohio EPA inspector visited the site and witnessed vapor combustor stacks releasing dark clouds of pollution into the surrounding air. After performing visible emissions observations, the Ohio EPA concluded that Freepoint had violated the

visible particulate emissions limitations set by their air permit and Ohio law.

Under normal operations at Freepoint, the vapor combustors attached to Pyrolysis Units 1 and 2 will destroy the vast majority of the volatile organic compounds (VOCs) that are produced during the pyrolysis process, and the vapor combustor stacks will produce lighter airborne plumes. Darker and denser plumes **usually indicate** that something is wrong.

And something was wrong. After the inspection, Freepoint revealed to the Ohio EPA that the pollution events on December 3 and December 4 were caused by malfunctions of the sponge oil absorber. On December 17, 2025, Freepoint emailed the Ohio EPA to report seven additional malfunctions that occurred from December 2 through December 15, 2025. That is a total of nine malfunctions in over 2 weeks—none of which were reported immediately to the EPA as is required by law.

That's not all the EPA found. Freepoint's air permit clearly states that the gas produced by the pyrolysis units must be vented to the scrubber (a **device that removes pollution** from gas streams) at all times. However, Freepoint told EPA officials during a December 2 site visit that they were not using the scrubber to control hydrochloride (HCl) emissions as required by their permit. Instead, Freepoint was using an **unpermitted** HCl system for an unknown period of time.

Hydrogen chloride (the gaseous form of HCl) is regulated under the Clean Air Act as a **hazardous air pollutant**, meaning it is a pollutant that is known or suspected to cause serious health effects or adverse environmental effects. According to the **US EPA**, short-term inhalation of hydrogen chloride can cause eye, nose, and respiratory tract irritation and pulmonary edema. Workers who are repeatedly exposed to hydrogen chloride may experience health problems, including chronic bronchitis, dermatitis, and gastritis. Using an unpermitted method to control hydrogen chloride in a manner inconsistent with

regulatory standards represents a violation of EPA policies and a considerable threat to public health.

Freepoint also failed to conduct the required testing on Pyrolysis Unit 2 to demonstrate compliance with emissions limitations for hydrogen chloride or particulate matter. This means that they have not tested the emissions of the pyrolysis unit that malfunctioned repeatedly for over two weeks. Because hydrogen chloride is a hazardous air pollutant, emissions of this gas are tightly restricted. According to Freepoint's air permit, "HCl emissions from the vapor combustor stack(s) shall not exceed 0.10 pounds per hour and 0.44 tons per year." However, because Freepoint has not been performing the required hourly emissions testing, community members in Hebron and Union Township have no way of knowing how much hydrogen chloride is being released into the air they breathe.

Freepoint has repeatedly failed to meet the terms of their air permit and abide by Ohio law. Despite this, the company is moving ahead with plans to diversify the types of plastic they process in Hebron.

In late 2024, Freepoint Eco-Systems and Plastic Back, an Israeli company, received a large **Bird Energy grant** (up to 1.5 million USD in funding) to test "chemical recycling" of PVC waste streams and launch a pilot project at the Hebron facility. According to Plastic Back, this pilot project will be semi-commercial in 2027.

Through the Plastic Back process, PVC plastic waste will be broken down on site into brine and oils that will be shipped elsewhere and used as petrochemical feedstocks to produce vinyl chloride (a known human carcinogen), which in turn will be made into new PVC plastic products. We do not need a "circular PVC economy"—we need to **phase out** this poison plastic and invest in safer alternatives.

Freepoint's continued noncompliance with air regulations makes it clear that they cannot be trusted to process and convert **highly toxic** PVC waste into oil. Ultimately, PVC "chemical recycling" is a false solution to the plastic pollution crisis, backed by fossil industry

giants like **Shell** and funded by groups like the **Vinyl Institute**. The people of Hebron deserve clean air, clean water, and healthy jobs, not to become guinea pigs for more speculative, polluting technologies.

Freepoint's inability to manage its air emissions is a bright red flag for the community. If the company cannot be trusted to follow basic air regulations, they certainly cannot be trusted to handle the hazardous byproducts of PVC depolymerization. By expanding into PVC "recycling," Freepoint is doubling down on a risky process that threatens our environment from every angle, from polluted air to the potential mismanagement of dangerous chemical waste. We cannot allow them to continue to go unchecked.