

**Union Carbide Institute Facility, Logistics Plant
Title V Operating Permit Renewal
Public Comment Fact Sheet**

SUMMARY OF RECOMMENDATIONS

- Consider the full emissions footprint of ethylene oxide and other pollutants from all units at the Institute Facility together;
- Set emission limits for ethylene oxide at a lower level that reduces the communities' cancer risks to be "acceptable" levels;
- Require adequate monitoring and reporting—such as fenceline monitoring—to protect communities and ensure that Union Carbide (UCC) complies with all permit requirements.

BACKGROUND INFORMATION

- The West Virginia Department of Environmental Protection (WVDEP) is proposing to renew the Clean Air Act "Title V" operating permit for UCC's Logistics unit within the Institute facility.
- A Title V permit is supposed to identify all the limits and other Clean Air Act obligations that apply to a source of air pollution—and also enable the public to look in one place determine whether the source is actually complying with those obligations.
- Because of transfers of ownership and permitting decisions by WVDEP, the UCC Institute facility is divided into at least 8 or 9 separately permitted units, including the Logistics unit.
- At the Logistics unit, UCC unloads ethylene oxide from rail cars into two large storage tanks and distributes the ethylene oxide to facilities in Institute and South Charleston.
- Information and permit documents are available at this link (under U): <https://dep.wv.gov/daq/permitting/titlevpermits/Pages/default.aspx>
- Fenceline monitoring information for the facility is available at this link (under "WVDEP Monitoring Project"): <https://dep.wv.gov/key-issues/Pages/EtO.aspx>

THE FACILITY HAS DANGEROUSLY HIGH ETHYLENE OXIDE EMISSIONS

- UCC has estimated that the Logistics unit has the "potential to emit" up to 3 tons per year (6,000 pounds) of ethylene oxide, which is a potent carcinogen. Because this is an estimate, the Logistics unit could be emitting even more of this dangerous pollutant.
- Even 3 tons per year is a significant amount of ethylene oxide and causes an unacceptably high risk to surrounding communities. WVDEP has estimated the cancer risk levels from ethylene oxide are **400 in 1 million** for certain areas in Institute and North Charleston. That

means that, for every 1 million people who are continuously exposed to the ethylene oxide emissions over 70 years, 400 people may develop cancer from these emissions alone.

- Additionally, WVDEP and UCC have been conducting “fenceline monitoring” around the facility to determine the facility’s true emissions of ethylene oxide. Even though this data provides useful information on the facility’s actual, measured emissions rather than estimated emissions, it does not appear that WVDEP is taking this data into account in this permitting decision.
- WVDEP should ensure that it releases all fenceline monitoring data—including both WVDEP’s and UCC’s data—to the public. WVDEP should use this data to verify UCC’s ethylene oxide emissions and to set proper limits in the permit.
- WVDEP should revise the permit to set ethylene oxide limits that lower the cancer risk below 100 in 1 million. While we believe that 100 in 1 million is still too high, this is U.S. Environmental Protection Agency’s (EPA) benchmark for “acceptable” risk.
- In fact, WVDEP is currently using fenceline monitoring data in coming up with a “consent order” that would require UCC to permanently monitor at its fenceline and would require UCC to meet new, lower ethylene oxide limits. But this consent order does not allow the public to participate and is completely separate from the permit renewal. The permanent fenceline monitoring and lower limits **should be part of this permit renewal process** and not in a separate proceeding that is not open to the public.

ENVIRONMENTAL JUSTICE ISSUES

- EPA has identified the UCC facility as one of 25 “high-priority” ethylene oxide-emitting facilities nationwide that contribute to elevated cancer risks.
- Because the majority-African American communities in Institute face large negative impacts from this ethylene oxide and also from toxic air pollution from other sources in Chemical Valley, WVDEP should pay extra attention to this permit to make sure it fully complies with the Clean Air Act and protects the communities in Institute.
- In December 2022, EPA released its “EJ in Air Permitting – Principles for Addressing Environmental Justice Concerns in Air Permitting” document (<https://www.epa.gov/system/files/documents/2022-12/Attachment%20-%20EJ%20in%20Air%20Permitting%20Principles%20.pdf>), which outlines key recommendations for air permitting authorities to address environmental justice and equity in overburdened communities. The framework describes eight principles and practices that should be incorporated into permitting decisions, including as an initial step:
 - Identifying communities with environmental justice concerns (this includes the communities surrounding the UCC facility, which have been identified as being among the highest EJ Index percentiles for the state of West Virginia).

- The document goes on to outline important practices, like engaging affected communities early in the permitting process to ensure fair treatment and meaningful participation, including by making the administrative record and data easily available and using multiple methods of communication to encourage public engagement.
- Importantly, the document suggests conducting an environmental justice analysis to ensure fair treatment and to investigate any potential for disproportionate impacts to communities as a result of the permitting decision.

WVDEP MUST NOT ALLOW UCC TO SEPARATE THE FACILITY UNDER DIFFERENT OWNERS AND PERMITS

- **Concern:** the Logistics unit is **one of eight (or nine) units** at the Institute facility, which WVDEP has allowed to be under separate Title V operating permits.
- This is a problem because WVDEP does not consider **all the cumulative emissions and health risks** from the entire Institute facility. Even though there are at least eight units in this facility within the same fenceline, the permit is only considering the emissions from one unit—the Logistics unit.
- This is also a big problem for transparency and public participation because the public has to review and comment on separate permits for each of the 8 or 9 units at the Institute facility on separate timelines.
- In fact, one day before the January 10 hearing, WVDEP stopped accepting comments on the Title V permit for the barging operations at the Institute facility. Up until very recently, these barging operations were part of UCC’s Logistics unit **and this Title V permit**. However, WVDEP began separately permitting the barging operations in 2019, and UCC sold the barging operations to Altivia Services, LLC, at some point after that.

WVDEP MUST REQUIRE STRONG MONITORING IN THE PERMIT

- WVDEP must revise the permit to include **monitoring** that will **ensure that UCC is complying with its limits for air pollution**.
- **Flares:** UCC mainly uses a “flare” to reduce ethylene oxide and other air pollutants (including “particulate matter,” or soot) from the Logistics unit. The facility also has a backup flare. But the permit only requires UCC to comply with generic, outdated standards for flare operation that EPA has found to be inadequate. WVDEP should strengthen the permit’s flare requirements and require more frequent monitoring for particulate matter from the flares.

WVDEP MUST REMOVE THE ILLEGAL “AFFIRMATIVE DEFENSE”

- The permit contains an **“affirmative defense”** that allows UCC to avoid liability for violations of limits during “emergencies” if UCC can show that the violations are supposedly beyond UCC’s control. Courts have found that affirmative defenses are illegal.