

## **Key Issues Concerning UNC's Plans to Burn Waste Pellets**

UNC applied for an air permit modification to allow it to burn a new fuel source—a pellet made from pre-consumer industrial paper and plastic waste products manufactured by Convergen Energy. UNC currently burns gas and coal and intends to use the waste pellet to transition from coal in support of its Climate Action Plan. The proposed permit modification, however, places no restriction on its continued use of coal or gas. Moreover, the proposal omits a lot of important information relevant to knowing the impact on the surrounding community. DEQ is holding a public hearing on the draft permit on January 16, 2025, at 6 p.m. at the Chapel Hill Town Hall, and is accepting written comments through January 23, 2025.

The draft permit and related documents have raised significant concerns, including the sufficiency of UNC and DEQ's analysis of the waste pellets and their potential impact to local air quality and surrounding communities.

### **Negative Impact on Surrounding Communities**

- In pursuit of its Climate Action Plan, UNC is proposing a solution to transition away from coal that risks doing significant harm.
- UNC's application shows that combustion of waste pellets will increase emissions of harmful pollutants like nitrogen oxides ("NO<sub>x</sub>"), carbon monoxide, volatile organic compounds, and lead. The unknown paper and plastic waste sources also include potential sources of PFAS.
- Nearly the entire surrounding community is low-income, and several nearby neighborhoods in Chapel Hill and Carrboro, Northside and Pine Knolls, respectively, are historically Black neighborhoods located less than a mile from the UNC facility.
- Only 3,000 feet from UNC's facility is the UNC hospital system, where vulnerable patients are at heightened risk of negative health outcomes due to air pollution.
- These communities will be disproportionately burdened by both the known and unknown pollution resulting from UNC's planned combustion of waste pellets.

### **Unknown Composition and Emissions from Waste Pellets**

- The draft permit assumes the waste pellets are 60-85% cellulose fiber and 15-40% plastic, based on a single composition sample of Convergen's pellets from 2020. More recently, however, Convergen has noted that its pellets may contain up to 49% plastic.
- UNC and DEQ incorrectly assume that pellet composition will be consistent despite the multitude of industrial wastes that Convergen sources from and Convergen's own records indicating variability in pellet composition.
- By failing to account for variability in pellet composition and the possibility of much higher plastic levels, the draft permit likely underestimates the emissions that may result from combusting the waste pellets.
- Convergen claims that pellet composition is analyzed quarterly. Before authorizing this modification, DEQ should request these reports and then reanalyze the emissions impact.

### **Waste Pellets Cannot be Considered Wood for Purposes of Avoiding Scrutiny**

- UNC's existing permit allows for the combustion of wood, but UNC states that it does not currently combust wood and has no plans to do so in the future.

- UNC and DEQ, however, claim that the waste pellets are primarily wood, meaning that adding the waste pellet does not represent a change in the facility's method of operation that would trigger analysis of the modification for potentially stricter emissions limits.
- Documents from Convergen show that the waste pellets could contain up to 49% plastic, yet DEQ views the plastic as merely a binding agent for the wood.
- DEQ and UNC must acknowledge that Convergen's pellets are not "wood" and analyze the proposed modification to determine if stricter emission limits are necessary.
- DEQ should remove wood as an authorized fuel source based on UNC's statement that it has no plans to combust wood.

### **Insufficient PFAS Monitoring Requirements**

- Plastic and paper products can be coated in PFAS, a group of man-made chemicals that pose threats to human health even at very low levels.
- A 2019 analysis showed detectable levels of PFAS in Convergen's pellets. It is unclear what the pellet composition was at the time of the test or if other analyses exist.
- The draft permit requires UNC to conduct a single emissions test for PFAS, as well as annual monitoring of the pellets themselves for PFAS content.
- Given the uncertainties and variability in the waste pellet composition, additional testing and monitoring is needed to protect the public from potential PFAS exposure.

### **NO<sub>x</sub> Emissions Calculations are Deficient**

- UNC and DEQ claim that combustion of the waste pellets will increase emissions of NO<sub>x</sub> but not by enough to trigger stricter regulatory requirements.
- Emissions data at other similar facilities combusting Convergen's waste pellets demonstrate that UNC's NO<sub>x</sub> emissions are likely underestimated.
- The permitting documents do not appear to include reference to emissions data from a public utility that combusts Convergen's pellets using the same type of boiler as UNC. Applying this data to UNC's modification would result in higher NO<sub>x</sub> emissions, triggering a requirement to install the best available control technology ("BACT").
- DEQ must reassess UNC's projected emissions considering this comparable facility (as well as other representative emissions data possibly missing from the permit record) and require UNC to undergo the more rigorous permitting process as a major source of NO<sub>x</sub>.

### **Waste Pellets are not a Low-Carbon Alternative**

- Despite claims that Convergen's pellets are an "ultra-low carbon fuel," UNC's application estimates only a 12% decrease in emissions of CO<sub>2</sub>e over coal.
- A Convergen-commissioned life cycle analysis claims that the global warming potential of its pellets is 52% less than an average coal plant, but this analysis appears fundamentally flawed because it ignores carbon emitted from combustion of the paper portion of the waste pellets because such emissions are considered "biogenic."
- The analysis also only accounts for 40 miles of transportation-related emissions, whereas use at UNC will require nearly 1,000 miles of transport.