February 1, 2018

To: The Honorable Ken Helm, Chair, & Members House Committee on Energy and Environment

Re: HB 4001 & Oregon's Paper Industry Workers

Dear Chair Helm & Members of the Committee:

I'm writing on behalf of the many people – some your constituents – who work in Oregon's pulp & paper industry and my concern over the potential negative impact of HB 4001 and its companion Senate legislation on their livelihoods. I propose what I feel is a necessary and justifiable amendment.

Prior to retirement in 2015 I worked for 46 years at the Springfield Weyerhaeuser, now International Paper mill in a variety of technical, engineering support and environmental positions. I am thoroughly familiar with the mill processes. A major part of my job was Title 5 (Clean Air Act) compliance which includes Greenhouse Gas (GHG) monitoring and reporting.

I am well-versed in 40 CFR Part 98, Subparts C and AA and ORS 468A. Accordingly, I can speak with some knowledge of the key issues involved. For the record, I speak on my own as I am not authorized to speak in official capacity for any of the mills.

I have a number of concerns about this legislation based on how I read it but two in particular:

Unattainable CO2e Reduction Criteria?

The paper industry in Oregon has spent many millions of dollars in the past 2 decades becoming very efficient in its use of fossil fuels. Even back in the '70s the Springfield mill pioneered energy-saving and pollution reduction technologies that have subsequently been adopted nearly world-wide. The mills derive most of their energy needs from renewable fuel. There is no more "low hanging fruit."

Based on the configuration of these mills and my interpretation of the language in the bill, I see no realistic way for them to come anywhere close to the later reduction criteria. Even if they were all to go to a total recycle furnish mix I see no way for them to do it. That would therefore mean buying a large number of offsets at who knows what price and availability. Given the very competitive nature of the industry I don't see a good outcome. You saw what happened to the IP mills at Gardiner and Albany.

"Anthropogenic" vs. "Biogenic"

This is of critical importance to the industry. Under the current federal and Oregon State GHG reporting protocol, biogenic and non-biogenic GHG are classified and reported as separate entities. The state report actually has separate forms for "biogenic" and "anthropogenic" GHG. A key question is, **WHAT IS THE MEANING OF "ANTHROPOGENIC" IN THE BILL?** I could not find a definition in the language.

As previously noted, the paper industry in Oregon derives most of its energy needs from renewable fuel. This is the residual lignin after the fiber has been chemically separated from the wood. It is burned to produce energy (steam) and to recover most of the cooking chemicals. Wood is approximately 50% fiber and 50% lignin which is what binds the fibers together.

This system is the heart of the kraft pulping process without which the mills cannot operate. A side benefit is that it minimizes air emissions of PM10, SO2 and TRS among others and keeps cooking chemicals out of the rivers. Its benefit from an energy standpoint is that it dramatically reduces fossil fuel use.

As is the case when burning any carbon-based fuel, it produces CO2 emissions. However, this fuel is carbon-neutral (wood-based) and thus renewable. It is therefore designated as **"biogenic"** under both the federal and existing state GHG reporting rules. **It is not included in "anthropogenic" GHG emission calculations for either the federal or state GHG report.**

Below is the summary page template for the federal GHG report showing "biogenic" CO2 reported separately:

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Because paper and wood products mills rely on residuals from the manufacturing process for powering their operations, it is important to note that there is strong consensus that the use of residuals for energy has significant GHG reduction benefits. For example, a comprehensive study published in the *Journal of Industrial Ecology* concluded that *"*[*T*]*he use of biomass residues from forest products manufacturing to produce energy in the U.S. forest products industry for 1 year avoids, over a 100-year period, 181 million t CO2-eq/yr [i.e., tons of CO2-equivalent emissions per year]."*

In conclusion, **Biogenic carbon dioxide emissions from forest-derived bioenergy categorically should be counted as making zero contribution to the build-up of greenhouse gases (GHG) in the atmosphere** where forest carbon stocks are stable or increasing. Through the natural carbon cycle, growing forests sequester carbon as trees continually are replanted and grow through their lifecycles, even as some trees are being harvested.

Forest biomass, including forest products manufacturing residuals, should be treated as carbonneutral whether or not it is co-fired with fossil fuel. The carbon profile of biomass is not altered in any way simply because it is co-fired with other fuels.

Accordingly, I urge that both HB 4001 and its Senate companion legislation (SB 1507) be amended to specifically exclude biogenic GHG emissions from their scopes.

Thank you for your consideration.

Respectfully,

Jerry Ritter Springfield, Oregon 541-968-8295 editor@8thafhsoregon.com