

Good morning members of the Senate!

My name is Gaylen Dewing and I'm here in support of SB2212. I am a lifetime resident of North Dakota and have been a farmer and rancher 5 miles east of Bismarck for over 50 years.

I am a strong supporter of the energy industry, having worked in it myself for many years. I support the use of eminent domain, when necessary, to secure the rights-of-way to move products safely to a location where they can be used for the betterment of human lives. The issue we are discussing this morning is a much different type of project. The proposed carbon dioxide pipeline would move a dangerous product through our community to a location where it can not be used for any purpose, but instead must be injected underground and sequestered forever. North Dakota's energy industry would not benefit in any way from this practice. For this reason alone, it should not qualify for common carrier status.

If any other reason bears mentioning, the CO2 pipeline should not be granted common carrier status for the simple issue of safety. After investigating an event in which hazardous CO2 escaped from a pipeline in Mississippi, the Pipeline and Hazardous Materials Safety Administration (PHMSA) reported that they are in the early stages of developing new comprehensive regulations pertaining to CO2 pipelines and STRONGLY suggested that permitting new CO2 pipelines be suspended until new regulation be implemented.

So, what are the safety concerns for CO2? When pressurized liquid CO2 escapes into the environment it immediately returns to the gas state. Since CO2 gas is heavier than air, it settles in low lying areas and forces out oxygen in the affected area. People, and even animals, in these areas will have difficulty breathing and, as is known from the Mississippi leak, many will lose consciousness. The purposed pipeline would have shut off valves every 20-30 miles however even if the valves were able to be turned off immediately, the area between the valves would still be released. A 20 mile stretch would be the equivalent volume of over 1000 tanker trailers.

How large of an area would be affected by this type of leak is difficult to estimate as it would depend on where along the pipeline it occurred and the atmospheric conditions at the time. It is known that CO2 would move with the wind and would follow low lying areas and waterways. The fairly densely populated areas just north and east of Bismarck with Apple Creek, Hay Creek, Burnt Creek and of course the Missouri River could be significantly affected.

Not only would citizens be at risk but responding to a CO pipeline rupture or leak would be extremely difficult due to lack of oxygen. Our first responders and medical providers, do, regularly participate in simulated disaster preparedness exercises such as plane crashes, tornadoes, shootings, etc but few, if any, have been trained in responding to a CO2 pipeline leak. In the Mississippi event, 49 people required hospitalization, nearly all exposed suffered medical emergencies. That influx of patients would quickly overwhelm our local hospitals and first responders.

If any further argument is even necessary, it's worth noting multiple studies which have shown the impact of leaking carbon dioxide on soil properties and ecosystems. Plants, soil dwelling animals and microorganisms, even in shallow soil, are affected by CO2 exposure. In one study from 2017, CO2 invasion in the soil was proven to cause changes in pH and reduction of organic carbon, nitrogen and phosphorus which resulted in adverse effects on plant growth and even crop quality of wheat. Clearly this would be of significant concern for North Dakota farmers, ranchers and land owners.

So, in summary, the lack of benefit to our energy industry, potential harm to our citizens, and detrimental effects to the land and animals of our farmers and ranchers are inarguably reason enough to support SB2212.

Thank you for your time and consideration of this important bill.