

Pipeline Safety: Safety of Carbon Dioxide and Hazardous Liquid Pipelines

Meeting: Friday, July 12, 2024; 2:00 - 2:30 pm EDT

Attendees: Edgar Melgar - OMB/OIRA, Sean Ford - OGC DOT, Nathan Cole - DOT/PHMSA, Richard McKean, Angela McKean, Maria McKean, Megan McKean, Amanda Stamp, Meredith McKean - MPH, MD

Comments:

We believe that there are several safety concerns that need to be taken into consideration for the PHMSA rulemaking. In the Iowa Utility Board's Final Decision and Order for the Summit Carbon Solutions, LLC carbon dioxide pipeline (IUB DOCKET NO. HLP-2021-0001), the board stated that they make no finding whether Summit's dispersion model will satisfy PHMSA's requirements. Your new rules could save lives **The people that could potentially be impacted by a loss of containment from these carbon dioxide pipelines deserve to know the plume modeling results.**

1. Set-backs and plume modeling:

- a. It is critical that plume model results are released to the public. The public deserves to know what risk they face. We need data to prepare and implement emergency response protocols.
- b. Different standards for urban vs rural areas is unacceptable. This multibillion-dollar industry can afford to cover the cost of strict safety standards for the entire pipeline, not just high-consequence areas (50K people or more). Along most of the Summit Carbon Solutions, LLC route in Iowa, there are not concentrations of +50K people. Why do rural lives matter less to the government?
- c. On page 244 of the IUB Final Decision and Order, the board stated they would NOT use dispersion modeling to assist with routing determination or routing modification. This means that no matter where the models predict the plume will go, this will have no bearing on the route approved by the IUB.
- d. This could be devastating to communities. One example is the Terril, Iowa elementary school. The Summit Carbon Solutions, LLC pipeline route is currently less than 0.5 mile from the elementary school and the Terril fire department is volunteer. If an issue were to occur, a HAZMAT team from Sioux City, Iowa would be dispatched. Sioux City is 112 miles or two hours away from Terril.
- e. The Summit Carbon Solutions pipeline is 20" to 24" inches in diameter in some parts of Iowa. These pipelines will be very close to homes. Navigator Heartland Greenway, LLC intended to put their pipeline less than 530 feet from our farmhouse. Summit Carbon Solutions, LLC is placing their pipeline even closer to homes.
- f. Our county, Emmet County, Iowa, passed a zoning ordinance that regulates and restricts the use of land for the transport of hazardous liquid through a hazardous liquid pipeline, establishing separation distances for the hazardous liquid pipeline from occupied structures (i.e., not less than 1,000 feet). Both Summit Carbon Solutions, LLC and Navigator Heartland Greenway, LLC sued our county over this ordinance, and it is currently being litigated in court.
- g. The Emmet County zoning ordinance calls for the pipeline company to provide the county a rupture dispersion modeling report containing the results of computational fluid dynamic computer model estimates of the maximum geographic ranges of the Fatality Zone and Hazard Zone for the carbon dioxide pipeline in the event of its rupture in a range of weather conditions and representative topography in the county, as well as in low-elevation areas of the county where released carbon dioxide may settle. This information is for the purpose of assisting the county with its emergency response and hazard mitigation planning efforts.
- h. In our county alone, two different carbon dioxide pipeline companies had planned three river crossings.

- i. **If the counties are not allowed to pass ordinances to establish separation distances from occupied structures and the Iowa Utilities Board does NOT use dispersion modeling to assist with routing determination, there will be no protections at the state or county level. What will the federal government do to protect people? That is the only layer of protection left.**
 - j. The people do not want to live next to these pipelines, but the government is forcing them upon its citizens. The Iowa Utilities Board recently granted Summit Carbon Solutions, LLC the power of eminent domain on hundreds of landowners in Iowa. If the government is going to force people to live with this hazard in their communities, the government must provide adequate protections.
 - k. The potential amount of carbon dioxide released from a pipeline loss of containment far exceeds the amount from a truck or railcar. The potential human impact of a pipeline loss of containment is, therefore, greater than the alternative modes of transportation.
 - l. Lastly, what are the consequences of continued non-disclosure of plume modeling results? People are entering into legal contracts without full information of the risks they are being asked to host. Some people consider the withholding of information that would materially impact a financial transaction to be considered fraud.
 - i. The government requires pharmaceuticals to have booklets of all the side effects of the product a consumer is buying. Mortgages require lengthy disclosures and consumer protection notices. What is the rationale in enabling industry to hide the risks of the infrastructure they are seeking to negotiate with individual people? Why is the right to know of an individual superseded by the right to secrecy for the company and how does that facilitate a fair and transparent transaction?
 - ii. The Department of Energy acknowledges plans to build extensive carbon dioxide pipelines throughout the US. There will be leaks. At some point, another Satartia-like incident will happen and could result in deaths. In a future congressional hearing on the matter – what will be said? Everyone involved now will be looked at to determine how and why the decision was made to withhold this information from people. What will that congressional hearing find? Is it acceptable to protect people from some safety issues but not others? Who or what is really being protected here?
2. Tile repair and safety concerns:
- a. In Iowa, field drainage tile installation is a common practice and in years like this where there has been an abundant amount of rain, drainage tile is critical for farming operations.
 - b. There are safety concerns regarding installation and repair of drainage tile near the pipeline. It is difficult to find contractors willing to take this risk.
 - c. Drainage tile in fields are often connected to basement drains in homes in Iowa. The drainage tile will be installed around the pipeline and serve as a conduit into people's homes in a loss of carbon dioxide containment.
 - d. Our family's county emergency management coordinator has stated that, in a loss of containment, the local emergency responders will set up a perimeter. The local emergency responders are nearly all volunteers who don't have adequate training or equipment for dealing with carbon dioxide. In Emmet County, Iowa, the HAZMAT team would be coming from Mason City, Iowa which is 86 miles or 1 hour 40 minutes away from our farm. Only the HAZMAT team from Mason City will enter the perimeter.

3. Weather, flooding, ground movement and pipeline stability:
 - a. Winters in Northwest Iowa are brutal. There are frost heaves which may disrupt the pipeline. In blizzard conditions, evacuation will not be possible and HAZMAT crew arrival times would be further delayed.
 - b. How quickly will the carbon dioxide disperse on a cold, still night in northern Iowa or even North Dakota? The record low temperature in Iowa was -47 F on February 3, 1996 in Elkader Iowa. Source: <https://www.ncei.noaa.gov/access/monitoring/scec/records/ia/all> The record low temperature in North Dakota was -60 F on February 15, 1936 in Parshall, North Dakota.
 - c. After several years of drought, Northwest Iowa has had severe flooding this year. As with any natural disaster, flooding is unpredictable. The tragedy in Sartaria was caused by heavy rains. Similar to Sartaria, there is photographic evidence of severe washouts from this year's rain along the pipeline route in Emmet County, Iowa. This is not being taken into consideration.
 - d. Natural gas and CO2 will not behave in the same way in the event of a rupture. Natural gas will rise when released into the atmosphere. Carbon dioxide will settle. The pipeline companies are disingenuously conflating the behavior of the two gases.
 - e. The pipeline companies claim they can instantly shut down the flow of carbon dioxide in a pipeline, but what is the result of the "hammer effect" in doing this?
4. Lack of pipeline abandonment regulations:
 - a. After federal tax credits dry up, carbon dioxide pipelines have a higher chance of abandonment which leads to a greater possibility of an empty pipeline collapsing.
 - b. If these carbon dioxide pipelines are forced upon citizens against their will, then it is only fair that the private industry that is profiting from this infrastructure should be required to set aside sufficient funding into trust at the onset of the project's construction to cover the future removal of the infrastructure.

Closing:

Thank you for your time. We hope that you take our concerns seriously. **Our clear ask to the federal government is to require the release of plume model results to the public, so that we can take steps to protect our families and communities.**