





**Public Health**  
Prevent. Promote. Protect.

**Bismarck-Burleigh Public Health**

**DATE:** February 16, 2023

**TO:** Burleigh County Commission / Burleigh County Board of Health

**FROM:** David J. Pengilly, MD   
Bismarck-Burleigh Health Officer

Renaë Moch, MBA, FACMPE   
Bismarck-Burleigh Public Health Director

**ITEM:** Health Officer's Opinion Regarding Threat to Public Health, Welfare and Life Safety of CO2 pipeline

**BACKGROUND INFORMATION:**

On February 6, 2023, members of the Burleigh County Commission requested an opinion from the Bismarck-Burleigh Health Officer, Dr. David Pengilly, MD regarding the threat to public health, welfare and life safety of a CO2 pipeline. This memo includes the health officer's opinion on this issue.

**SUMMARY:**

In North Dakota, a series of state and federal oversight agencies are responsible for the permitting and approval of CO2 pipeline projects. Ultimately, the North Dakota Public Service Commission has the authority on whether to issue a pipeline permit and the North Dakota Industrial Commission would regulate the permitting of the sequestration site. [An application](#) has been submitted from Summit Carbon Solutions to the North Dakota Public Service Commission and it is currently under review for completeness. The application requires submission of an emergency response plan which [has been uploaded](#) in draft format.

Bismarck-Burleigh Public Health reached out to the North Dakota Department of Environmental Quality (DEQ) for input regarding the threat to public health, welfare and life safety of a CO2 pipeline. In cooperation with various government agencies, industry, and the general public, DEQ sets environmental protection policy and ensures proper implementation of environmental protection programs to maintain and improve environmental quality in North Dakota. DEQ employs environmental quality experts trained in environmental health and safety issues.

Input from DEQ:

- The application process for a CO2 pipeline project includes oversight by various government entities and requires the development and implementation of health and safety protocols. The application and permitting process ensures proper mitigation and safety precautions are defined and implemented. An emergency response plan is required as part of the application for a CO2 pipeline.
- Transporting CO2 in pipelines is similar to transporting fuels such as natural gas and oil; it requires attention to pipeline design, protection against corrosion, monitoring for leaks, and safeguards against overpressure, especially in populated areas.
- There are other hazardous gases in the community such as compressed air, natural gas, and anhydrous ammonia which have a potential risk associated with them. There is no greater risk for transporting CO2 compared to other hazardous gases already present throughout Burleigh County.
- Several other types of pipelines are already established in the state of North Dakota with similar standards in place to ensure proper construction, proper monitoring for leaks/malfunction, and they require the development and implementation of an emergency response plan.

**The Bismarck-Burleigh Health Officer's opinion is as follows:**

- There is no unacceptable risk to health, welfare and life safety for a CO2 pipeline.
- Recommend reviewing Summit Carbon Solutions submitted emergency response plan upon completion.

Respectfully,



David J. Pengilly, MD  
Bismarck-Burleigh Health Officer

**Resources:**

<https://crsreports.congress.gov/product/pdf/IN/IN11944#:~:text=CO2%20Pipeline%20Safety&text=However%2C%20as%20concentrations%20increase%2C%20CO2,contaminants%2C%20such%20as%20hydrogen%20sulfide>  
<https://primis.phmsa.dot.gov/comm/inspectiondetails.htm>  
<https://northdakotapipelines.com/landowner-resources/>  
<https://www.law.cornell.edu/cfr/text/49/part-195/subpart-A>