North Dakota approves first Class VI carbon capture and storage project under state primacy in the United States

BISMARCK, N.D. – North Dakota’s regulatory framework for geologic sequestration of carbon dioxide (CO2) is leading the nation again today as the North Dakota Industrial Commission approved the first Class VI well in North Dakota. North Dakota was the first state to receive primacy of Class VI wells from the U.S. Environmental Protection Agency (EPA) in 2018, followed only by Wyoming in 2020.

Orders written by the Department of Mineral Resources (DMR), and signed today by the Commission, approve Red Trail Energy LLC (RTE) to geologically store CO2 from the RTE ethanol facility located near Richardton. Orders signed also determine the financial responsibilities and approve of the amalgamation of the storage reservoir pore space required to operate the facility. The RTE facility currently emits an average of 180,000 metric tons of high-purity CO2 annually from the fermentation process during ethanol production. This approval allows RTE to commercially capture (dehydrate and compress) and inject the 180,000-metric-ton-per-year CO2 stream into the Broom Creek Formation on RTE property for permanent geologic CO2 storage.

“We commend Red Trail Energy for their innovative and rigorous work to submit an application that sets the standard for future carbon capture applications,” the Commission stated in a joint statement. “Red Trail’s work with the Energy & Environmental Research Center has resulted in a project that assures that carbon dioxide can be safely stored for generations.” The North Dakota Industrial Commission is made up of Gov. Doug Burgum, Attorney General Wayne Stenehjem and Agriculture Commissioner Doug Goehring.

Wells are categorized in different classes by the EPA. A Class VI well is used to inject CO2 into deep rock formations for long-term storage – also referred to as geologic sequestration. Geologic carbon sequestration is a method of securing carbon dioxide in deep geologic formations to reduce or eliminate its release to the atmosphere. Carbon dioxide can be captured from stationary sources such as powerplants and other large industrial facilities, compressed to a fluid state, and injected deep underground into permeable and porous geologic strata in which it will remain isolated. The geologic formation in which the gas is stored must be overlain by another layer of impermeable rock to seal in the injected CO2.

“North Dakota researchers began evaluating the state’s resources 18 years ago, and North Dakota policymakers began developing the legal and regulatory framework for Class VI geological storage 12 years ago, DMR Director Lynn Helms said. “The approval of the RTE permits marks a significant milestone in the economic development of North Dakota’s abundant geologic resources.”

For more information on North Dakota’s Class VI well program visit
https://www.dmr.nd.gov/oilgas/GeoStorageofCO2.asp

For further information Contact Katie Haarsager at 328-8020