

1/11/2022

Iowa Utilities Board,

I am basing my objection to the Heartland Greenway Carbon Pipeline project based on the presentation heard during the informational meeting at the George Daily Community Auditorium in Oskaloosa Wednesday, January 5th, 2022 (hereafter, Oskaloosa presentation) and information from various federal government web sites, referenced herein.

My first strenuous objection is as a taxpayer. A \$3B project price tag was mentioned, with the purported payback coming from federal tax credits ported to Navigator through payments from the ethanol and fertilizer industries in Iowa. The captured and transported CO₂ is to be sequestered, so no usage revenue is foreseen. There are many guidance/coaching documents concerning these issues sponsored by the federal government. I cite just two short example presentations here, because they are enough to clarify my first objection.

Page five of a 2019 presentation¹ by the National Energy Technology Laboratory, concerning the modeling of 45Q carbon sequestration tax credits, states the tax credit for permanent saline aquifer storage is \$50 per ton for years 2026 through 2050. A report from the Congressional Research Service² (06/08/2021) backs up these numbers. In the project overview at the Oskaloosa presentation, Navigator indicated at least a 25 year project service life at 15M tons/year. Not needing a government model, my simple arithmetic has the taxpayer footing the bill for \$18.75B. (Please note all footnotes are active hyperlinks.)

I personally reject that the UN-sponsored Net Zero initiative will have a “climate” benefit to the planet, even if the unsustainable globalist dream of tens of thousands of miles of CCS pipeline were to come to fruition. However, there are clear financial redistribution advantages to various players; Navigator CO₂ Ventures LLC (Navigator), and BlackRock will be the recipients of billions transferred from other taxpayers. (The cost of government is not reduced by “tax incentives” granted to favored parties.) These tax credit numbers make the projected \$3B cited by Navigator (as alarming as that number is) seem like a pittance. Navigator declined to say how much they intended to charge the ethanol operators per ton. I believe the presenter in Oskaloosa likened the payment to the company to selling bus tickets for transportation. Would you bet on a break-even contract?

Besides the tax burden, the payments from industry will almost certainly be partially borne by consumers as increased cost of food and fuel. These financial considerations ought to give every citizen legal standing to object to Navigator’s Heartland Greenway Carbon Pipeline.

My second objection to the Heartland Greenway carbon capture and sequestration pipeline is one of safety, which has several facets. I’ll start close to home.

The proposed route of the Heartland Greenway hazardous liquid pipeline passes about 7000 feet NNE of our residence (located at 41.431N, -92.769W) in Mahaska county. This distance to the pipeline does not put us in the records of Navigator. However, at that 7000 foot distance, the Dakota Access right-of-

¹ <https://netl.doe.gov/sites/default/files/netl-file/C-Nichols-NETL-Modeling-CCUS-Deployment.pdf>

² The Tax Credit for Carbon Sequestration (Section 45Q) (congress.gov)

way crosses an unnamed watershed just south of highway G5T, near Fisher Avenue. That watershed empties southward into Ballenger Creek, very near our house, creating a conduit capable of passing heavier-than-air CO₂ from the right-of-way to the lower elevation of our property.

During the Oskaloosa presentation, representatives Navigator were asserting that they were committed to follow all federal guidelines during installation and operation. I suspect that the installers of the CO₂ pipeline that failed near Sartartia MS in 2020 made similar assurances to those near their right-of-way.

There is an eye-opening Huffington Post article online, entitled *The Gassing of Sartartia*³, penned by Dan Zegart (dated 8/26/2021) that should be required reading for every Iowan to make it plain that dangers from pipeline transport of super-critical compressed carbon dioxide are not negligible. I cannot calculate the chances the pipeline would fail at that particular watershed crossing. But my topographical analysis shows the potential for parties *not on* Navigator's map to be affected by a significant leak, including us. I did not hear anything during the informational meeting about recognizing specific dangers to those in adjacent low areas other than a promise to train first-responders in the area. One of Navigator's representatives informed me in the lobby of Daily Auditorium that their records are only concerned with the right-of-way and adjacent landowners. Clearly, Navigator's primary focus is acquiring access and permitting. That standard was likely applied to the residents of Sartartia, as well. Further, our rural location minimizes the possibility that we will be classified as a "high impact area"⁴ or draw immediate first-responder attention.

At the far end of the project, I have concern for more wide-spread safety issues. Literature produced by Heartland Navigator CO₂ Ventures LLC and distributed during the county informational meetings indicates the plan is to sequester 15M tons of super-critical CO₂ per year by injection into a deep saline aquifer in Central Illinois. Since the Iowa Utilities Board has been represented at these meetings, I'm sure these claims have been noted. At the Oskaloosa presentation, Navigator repeatedly cited a pilot project with Archer Daniels Midland which was already injecting in the proposed sequestration area. These activities are monitored by the EPA and DOE.

My search for public records^{5,6} related to the sequestration site located the footnoted EPA documents showing that the ADM injection project is cleared for a rate of 1.2M tons per year and 6M tons total over three years, to avoid substrata fracturing. Navigator Ventures is proposing 15M tons annually for more than 25 years. The ADM pilot effort cited by Navigator as proof-of-concept sheds scant light on the potential unintended consequences of the sixty-two-times-more-massive injection rates and duration being currently proposed.

The EPA in the documents referenced seems most concerned about the potential for contamination of groundwater above the injection strata. They also briefly mention screening for obvious local faults and folds by seismic surveys.

The proposed injection area is (at least) adjacent to the northern end of the geologically-active New Madrid fault zone, which is prominently referenced in US Geological Survey documents. In fact, USGS Circular 1066⁷ contains ample evidence that the area is active. A news release published last

³ https://www.huffpost.com/entry/gassing-sartartia-mississippi-co2-pipeline_n_60ddea9fe4b0ddef8b0ddc8f

⁴ <https://primis.phmsa.dot.gov/comm/FactSheets/FSHCA.htm?nocache=8797>

⁵ Class VI - Wells used for Geologic Sequestration of CO₂ | US EPA

⁶ <https://www.epa.gov/uic/class-vi-wells-permitted-epa>

⁷ U.S. GEOLOGICAL SURVEY CIRCULAR 1066

year cites USGS research⁸ discusses earthquake risks to natural gas pipelines. Clearly, the USGS recognizes the earthquake hazard to pipelines.

Many have blamed well injection (fracking) for the dramatic uptick in seismic activity in Oklahoma. According to an article in Wikipedia⁹, *“Beginning in 2009, the frequency of earthquakes in the U.S. state of Oklahoma rapidly increased from an average of fewer than two 3.0+ magnitude earthquakes per year since 1978 to hundreds each year in the 2014–17 period.”*

Since the Navigator-cited ADM “pilot” program was so much smaller than the present Heartland plan, I wonder if the USGS is yet aware of the magnitude of the plan and whether they have an opinion as to whether such a high injection volume might further destabilize the area in unprecedented ways. I believe we would be prudent to not find out after the fact, as unintended consequences usually make themselves known.

Thank you for taking my objections to the Navigator Ventures “Heartland Greenway” carbon capture and sequestration system seriously. I truly appreciate the time you have invested in hearing me.

Sincerely,
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⁸ <https://www.usgs.gov/news/national-news-release/new-usgs-research-highlights-use-earthquake-science-assessing-risk-gas>

⁹ Oklahoma earthquake swarms (2009–present) - Wikipedia