

## **WTE Column of Dec. 14, 2013. Editor's Headline: "A Poisonous Experiment"**

An email arrived from a national environmentalist organization, urging me to "speak out in Cheyenne" at a hearing slated for November 14, 2013. Supposedly public, the hearing pertained to a license that Wyoming's Department of Environmental Quality (DEQ) is set to issue to Linc Energy, an Australian coal company. The licensing would mean DEQ's exempting the Fort Union Aquifer from protection under the Safe Drinking Water Act, which is a federal mandate. In other words, the state agency is willing to approve aquifer contamination in Campbell County over and against federal regulations. Powder River Basin Resource Council, a watchdog group based in Wyoming, had filed objections to DEQ's proposal. On November 14, the Environmental Quality Council sat in judgment of the dispute.

Linc Energy has proposed an underground coal gasification (UCG) experiment, in an aquifer embedded in underground coal seams. The company seeks to "refine" a process it had begun in Australia. There, Queensland environmental concerns have thwarted its continuation.

I'd heard of coal gasification, the process of creating synthetic natural gas by setting coal afire. Germany, country of my birth, developed the technology during its Hitler years to generate fuel for its war machine. It's a horribly wasteful and environmentally destructive procedure. (Currently four Texan speculators, founders of DKRW, seek to duplicate the German folly in Wyoming.) However, I was unfamiliar with experiments that burn the coal and extract the gas underground.

When I arrived at the hearing, I learned there would be no public commenting. The Council determined to limit itself to hearing arguments from the two opposing factions, though Tom Coverdale, its presiding officer, did voice concerns: "This issue would not normally go through this kind of hearing—it would get a full public hearing, and it bothers me it did not get one . . . Public involvement is an important foundation of the [Environmental Quality] Act . . . The very nature of this Council speaks to the importance of community involvement."

Earnest DEQ agents, their experts and attorneys, along with the experts, attorneys, and lobbyists for Linc, argued for the permit. Opposing the group was the lone attorney and organizer representing Powder River Basin Resource Council, who maintained that DEQ is not vested with authority to reclassify / exempt the aquifer's good-quality water from Safe Drinking Water Act protection. "This water source is critical," Shannon Anderson argued, "to landowners and local governments in our arid state."

In 1999, Linc Energy had initiated a pilot project in Australia that was recently berated by a panel of scientists who were commissioned by the Queensland state government to look into its goings-on. The scientists warned that Linc should not be entrusted with any new projects until it had successfully decommissioned its plant and cleaned up the aquifer it had used. Powder River Basin Resource Council submitted the Queensland report to the Council prior to the hearing.

The portion of the aquifer that Linc has targeted is not currently used for human consumption, but other stretches of the aquifer are. It's highly probable that the pollution engendered by Linc activities will contaminate the aquifer as a whole, not just the 80 acres Linc proposes to use.

Nevertheless, after two days of hearing the Council approved the aquifer exemption DEQ seeks to implement.

Linc's experimental process is touted as "clean-coal technology" because its mechanism lends itself to trapping most of the harmful gases emitted in regular coal burning—provided, that is, the mechanism works in tandem with Carbon Capture and Storage. CCS is a pie-in-the-sky process of capturing and storing underground, any carbon dioxide emissions that would otherwise escape into the atmosphere. Without CCS (which, for various economic and logistic limitations, is unlikely to become reality anytime soon), the underground burning of trillions of tons of coal would result in carbon emissions "massive enough to drive up global temperatures by 5 to 10 degrees Celsius," states the Bulletin of Atomic Scientists. Climate warrior Bill McKibben has argued that such a rise would mean game over for most life-forms, including humans, on the planet.

The test burns Linc wishes to pursue would cover an 80-acre portion of the aquifer at a depth of 1,100-feet. Its coal would be ignited, then swamped with oxygen and water to convert everything into gas. Linc plans to exhaust 1000 tons of coal to produce "approximately one million standard cubic feet per day (MMscfd) of syngas." The gas, however, would be flared off rather than harvested, meaning the state will not collect any royalties on the product. Imagine burning off a million cubic feet of gas daily, for no reason other than the "experimental" nature of the tests!