

WTE Column of July 24, 2014. Editor's Headline: No Easy Fixes

A congenial presentation came from Jean-Philippe Feve, a young man with an endearing accent and unassuming posture. His Colorado-Springs company, Neuman Systems Group, manufactures scrubbers that have been successfully used at Colorado's Martin Drake power plant and are being eyed by other power-plant managers wishing to get ahead of EPA regulations. At the conference Monsieur Feve sought to drum up interest in—and sales of—his company's Neustream products, which are “uniquely field deployable” because transportable. Power-point slides illustrated the manageable size of units that, among other possibilities, can be hooked up to the diesel machinery on well pads, capturing tons of polluting exhaust which, according to Feve, can then be funneled into CO₂ transmission lines. He avoided the phrase “tons of polluting exhaust.”

For oil and gas wells, reaching the highest net value on an investment means achieving the lowest unit cost of production, iterated one EORI speaker. Accordingly, no one offered a whisper about the chemical fallout of flaring, much less was there mention of fugitive methane and other cancer-causing chemicals. Not a peep about residents who live cheek to jowl with oil and gas rigs, suffering noise, lights, heavy traffic, toxic air and other health hazards. Not a murmur about the roustabouts and roughnecks whose backbreaking work and exposure to dangerous chemicals won't provide a living wage, nor disability severance, nor pension-plan contributions.

As a whole, the conference illustrated that CO₂ is used—and usable—in very limited circumstances: it seems, only about ten percent of all EOR operations are able to use the gas successfully in their recovery efforts. Even then, reliable supplies can be a problem. Hence, industry pins its hopes on future coal-to-liquid operations that generate huge amounts of carbon dioxide, like the anticipated DKRW and Linc corporations—the former a brainchild of wealthy ENRON refugees; the latter an Australian company whose unacceptable pollution at home necessitated importing its product to the US. Anyone who understands the past practices of these companies would want to run their CEOs out of town.

The most worrisome presentation came from David Maher and Bryan Anderson of ExxonMobil. Worrisome, that is, to anyone who has followed the work of Theo Colborn: the ExxonMobil discussion centered on natural gas, which typically comes up as “sour gas” that “contains significant amounts of carbon dioxide and hydrogen sulfide.” ExxonMobil wants to separate out these components, which is hard to do economically. Additionally, there's the challenge of “management and disposal of these contaminants in an environmentally-benign way.” Not to worry, though, ExxonMobil has developed a process by which the undesirable compounds are “discharged at high pressure that can then be readily pumped for geosequestration or for enhanced oil recovery purposes.” What the presenters failed to mention: So far, geosequestration has eluded large-scale practice and remains a pipe dream. As for enhanced recovery, a number of conference speakers acknowledged that gasses and chemicals escape by the busloads, though they didn't use that terminology.

The demand for natural gas is expected to rise significantly over the foreseeable future, said the ExxonMobil representatives. No doubt they know what they're talking about. What Theo Colborn explains in documents posted on her Endocrine Disruption Exchange (TEDX) website meshes with what the ExxonMobil officials explained: when natural gas comes out of the ground, it's not all methane. If you're lucky, you get 82%, says Colborn,

the rest are other chemicals—short-chain hydrocarbons and benzene and other compounds—the “sour gas” of ExxonMobil fame. Unlike the blithe assurances of the conference speakers that these chemicals can be “disposed of,” Dr. Colborn maintains that they are blown into environment and atmosphere. “I’m talking tons per day per pad,” she says of Colorado’s natural-gas boom.

For decades Theo Colborn, whose work earned her the designation of “Rachel Carson of the Nineties,” has warned that extracting, processing, and burning fossil fuels introduces huge volumes of harmful chemicals into our environment. This is also true of natural gas, though it’s touted as clean and green. The chemicals generated are now present in every environment on earth, including the womb, where they produce alterations in sexual and functional development. According to Colborn, even extremely low concentrations of these chemicals can damage our endocrine systems and interfere with the natural chemical interactions that are critical to normal functioning.

CO₂ applications are not going to save us from sour gas, notwithstanding ExxonMobil’s contention that it has completed a “rigorous test program” near LaBarge, Wyoming, using its trademarked approach. Industry discusses flow rates, operational parameters, and injectivity. What it does not mention is the effect on the human bodies working the wells or living in drilling-dense regions. As for the effects of greenhouse gasses on the world’s climate and environment, they don’t exist in IndustrySpeak.

Have we turned into fossil-fuel addicts who act on beliefs that the solution to an addiction is an ever-greater supply of the addictive stuff? Our children and children’s children are paying the price.