The Reality of Environmental Cancer Fracking increases risks by Sue Smith-Heavenrich Broader View Weekly, July 29, 2010

Sandra Steingraber is an ecologist, an author, a cancer survivor. A scholar-in-residence at Ithaca College, she is recognized internationally as an authority on environmental links to cancer and other health problems, and is the author of the highly acclaimed book, *Living Downstream*, which was recently made into a movie.

Ask Steingraber, and she'll tell you that her most important role is that of a parent. As far as she is concerned, her priority is keeping her children safe from harm, a job that will be increasingly hard to do once industrialized natural gas drilling moves into the area.

Steingraber recently traveled to Washington DC to participate in a congressional staff briefing on the President's Cancer Panel report, "Reducing Environmental Cancer Risk", which was released in early May. Just nineteen months earlier Steingraber had testified before the panel. Her testimony was grounded in experience: between her sophomore and junior years of college, Steingraber developed bladder cancer.

It was environmental, Steingraber said. Though she'd never worked in a textile factory, smelted aluminum, worked in a dry cleaner, she'd developed a cancer with established links to chemicals used in those occupations. A decade-and-a-half later the public wells still contained traces of those chemicals in her hometown's drinking water.

The biggest problem Steingraber sees is the disconnect between scientific evidence and regulatory response. Take the Toxic Substances Control Act (TSCA). While it regulates the introduction of new or already existing chemicals, most of the existing chemicals were grandfathered, thereby exempting them from the newer regulations.

"It is so weak that it couldn't even ban asbestos," Steingraber says. "Even industry recognizes that they are losing market share in the European Union because of this law." That's because the European Union embraces a precautionary approach to regulating industrial pollutants. In contrast, the U.S. takes a reactionary approach in regulating chemicals, forcing citizens to bear the burden of proving that a chemical causes harm.

Industry is, and has been for years, exploiting regulatory weaknesses at a high cost to the nation, Steingraber says. Just from cancers alone, from a single year (2009), the National Institutes of Health estimates a cost of \$243.4 billion in direct medical costs and lost productivity due to illness and premature death. Steingraber points to a recent study in West Virginia that shows the entire economic benefit to the state from the coal industry is wiped out by the mortality and lost productivity of sick coal miners.

"Cancer is not cheap," Steingraber relays. Treatment is expensive, and survivors continue to receive periodic check-ups and treatment. "Forget about having a retirement fund or money in the bank." Individuals aren't covering all the bills, she explains, pointing out that as taxpayers we're all underwriting the cost of environmental pollution.

In their letter to President Obama, the cancer panel urged him to use the power of his office to "…remove the carcinogens and other toxins from our food, water and air that needlessly increase health care costs, cripple our Nation's productivity, and devastate American lives."

Those words have direct implications for high-volume hydraulic fracturing, Steingraber says. "Fracking means deliberately introducing carcinogens into our land, water and air." She emphasized this point to the congressional staffers in May.

Even without fracking, industrialized drilling poses problems. Steingraber ticks them off on her fingers: diesel exhaust from trucks, emissions from compressors at the well site, emissions from compressor stations and leaks in pipelines.

"Then you have the chemicals themselves." Steingraber cited the recent revelation of 981 gas and oil spills in Colorado. Frack fluid, combined with produced water (brine) accounted for more than 80 percent of the 5.2 million gallons spilled.

"Spills seem to routinely accompany the process," Steingraber said. Still, she remains concerned about chemicals left in the ground. "Maybe we can clean up surface spills, but shattered bedrock – there's no fixing that."

Steingraber gives a quick glance at her son, Elijah. "Industry shouldn't introduce technologies where, in the worst case scenario there's nothing to be done," she muses. "We drill deeper into the ocean, with catastrophic results," she says. "We remove mountaintops for coal, with catastrophic results. Now we're fracking for gas, with catastrophic results. How far are we willing to go to get this energy?"

If corporations used "full cost accounting" they would have to factor in the true environmental costs of fracking, Steingraber believes. That would mean taking into account the diesel fumes from trucks hauling water and chemical to the site, the frack fluid and well waste from the site, storm water run-off and erosion from drilling pads and access roads, chemical spills and wear and tear on local roads and infrastructure. But instead, they pass that cost onto the public.

"The only way to get shale gas is through fracking, and the only way to do fracking is to degrade the commons," Steingraber said. "This is the most urgent environmental issue we now face."

You can read the President's Cancer Panel report at http://deainfo.nci.nih.gov/advisory/pcp/pcp08-09rpt/PCP_Report_08-09_508.pdf