What's Wrong with the CCM Recommended Hydraulic Fracturing Ordinance?

The Connecticut Conference of Municipalities (CCM) unveiled a model ordinance that it recommends as an alternative to more stringent extraction waste bans already enacted in dozens of CT cities and towns.

Unfortunately, this model ordinance is seriously flawed. Towns risk future contamination and costly remediation expenses if they decide to pass the CCM version.

CCM modeled their ordinance after a weak state statute passed in 2014. The waste definition is limited to the process of hydraulic fracturing and generated secondarily to the purpose of hydraulic fracturing.

- Numerous processes are used when oil and gas wells are hydraulically fractured, and they all produce huge amounts of toxic and radioactive wastes. Since the CCM language is narrowly focused on the one process and purpose (pumping a fluid to create fractures), other wastes may not be banned. Huge amounts of solid wastes from oil and gas wells are produced during the drilling process, a month before the hydraulic fracturing process, so these wastes are not "generated secondarily."
- It fails to ban any wastes from oil and gas wells that don't use hydraulic fracturing. Conventional wells that are vertically drilled but not "fracked" use highly corrosive acids that dissolve rock. None of the wastes from these wells, radioactive brine, sludge, drill cuttings, are banned.
- It fails to ban leachate that drains from solid waste, including from landfills that have accepted drill cuttings and sludges, where radioactive material has been "cooking" for 10 years.
- It fails to ban brine that can "fall out" when gas is stored in underground caverns and special wells that hold large quantities of liquid petroleum gas.

The CCM template model ordinance also includes many **exceptions that should be of concern. Exceptions for use for construction and roads risks toxic chemical and radioactive contamination. Inferior material from oil and gas waste may cause slippage, be unstable, and incur costly remediation expenses, including future completed brownfield projects.**

Road Spreading

- Anti-icing, de-icing, pre-wetting and dust suppression: Spreading brine from oil and gas wells contaminates roads and run-off areas with radioactive radium, lead, high levels of chlorides and other toxins. Tire friction can send radium airborne and contaminated roadside dust can be inhaled. Run-off can impact waterways and nearby properties.[i]
- Radioactive radium is known to cause breast, bone and liver cancer, and is associated with childhood and adult leukemias. Radium takes 4,000 years to decay, producing additional radioactive elements and lead during the decay cycle.
- If CTDEEP errs and approves spreading brine in future regulations, then towns that pass the CCM ordinance risk similar contamination already occurring in other states.

Penn State University scientists tested brine spread in 14 Pennsylvania townships. Research published in May 2018 shows roads are contaminated with lead and radioactive radium, and radium and high levels of chlorides can also run-off. The Pennsylvania DEP rescinded all permits using brine from oil and gas wells for dust suppression.[ii]

A commercial de-icing product approved for use in several states was tested at 14 Ohio locations and found to be highly contaminated with radioactive radium, 300 times higher than allowable state and EPA levels.[iii] The

brine came from conventional wells that don't use the horizontal, hydraulic fracturing process and is not banned by the CCM ordinance. In Ohio, this product was sold at Lowe's Hardware store and on-line.

Road and Driveway Resurfacing, Other Similar Construction

- The CCM ordinance does not prohibit oil or gas products that may contain hydraulic fracturing waste when used for road or driveway resurfacing, similar construction or manufacturing processes. This is a backdoor way for businesses that seek to financially benefit by processing wastes and then sell them to unsuspecting towns and cities.
- The ordinance does not restrict products made from processed wastes that may be contaminated with radioactive materials. This is a serious loophole which leaves towns and cities open to receiving inferior and contaminated product, as the example of de-icer sold in Ohio already shows.
- A West Virginia Department of Highways assessment and a Marshall University engineering study commissioned by the West Virginia legislature cited moisture content, silt, slippage risks, high chloride levels, radioactivity and leaching of toxins prior to concluding use of wastes in road building and construction was not recommended.[iv]
- The Pennsylvania Department of Environmental Protection issued only three experimental permits for using solid wastes in road construction and capping a brownfield. However, none of these permits were renewed in 2017. A former permit holder stated, "It's not something suitable for building a factory on…We needed better-performing materials. That's why we stopped accepting it."[v]

Better, More Comprehensive Language is Available

The language in the CCM ordinance and the Connecticut state statute is outdated. Five New York County Legislatures have passed comprehensive laws that ban all oil and gas extraction activity wastes (Albany, Cayuga, Clinton, Nassau, Tompkins Counties), and the Suffolk County Legislature banned gas extraction wastes. This language closes loopholes created when only banning hydraulic fracturing waste and has protected 199 NY municipal corporations for years. Right now, 49 Connecticut towns and cities have also passed this language into law, beginning in 2015.

Attorneys and advocates with expertise in environmental law and public health, and scientists who work with the drilling industry, carefully crafted the comprehensive ordinance language. It clearly defines extraction activities and wastes needing to be banned, but does not ban products necessary for infrastructure and road projects. It does not ban petroleum, oil or gas or their by-products. It does not ban tar, which is waste from *refining* (not extracting) petroleum or emulsions used for making asphalt and roofing materials.

A recent CCM email and press release provides no factual support for a statement that towns have been "paralyzed…from performing any infrastructure improvements or road projects." Regarding the idea that comprehensive ordinances ban necessary products, attorneys for the Town of Weston state: ***"Attorneys in our firm representing towns that have passed similar ordinances have not encountered this issue, nor have they encountered a reduction in bids for town projects as a result. The attorneys in the CT Association for Municipal Attorneys also have not encountered these potential issues."*** Recent inquiry to the NY Nassau County Comptroller's Office and CT towns and cities with fully-protective ordinances show roads are being built and paved, and appropriate gravel and construction fill continues to complete infrastructure projects.

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[i] Consideration of Radiation in Hazardous Waste Produced from Horizontal Hydrofracking by Ivan White, Senior Staff Scientist for the National Council on Radiation Protection http://www.grassrootsinfo.org/pdf/whitereport.pdf

[ii] https://stateimpact.npr.org/pennsylvania/2018/05/31/study-finds-health-threats-from-oil-and-gas-wastewater-spread-on-roads/

[iii] http://www.post-gazette.com/news/environment/2018/07/02/Radium-radiation-commercial-brine-ohio-pennsylvania-aqua-salina-naturesown/stories/201806260107

[iv] Marshall University Center for Environmental, Geotechnical and Applied Sciences, June 30, 2015, Examination of Leachate, Drill Cuttings and Related Environmental, Economic and Technical Aspects Associated with Solid Waste Facilities in West Virginia.

[v] https://stateimpact.npr.org/pennsylvania/2016/03/23/dep-to-abandon-controversial-permits-for-recycling-drilling-waste/