

WASTING AWAY: Four states' failure to manage gas and oil field waste from the Marcellus and Utica Shale Full report at: <http://wastingaway.earthworksaction.org>

OHIO: Key findings

Even as shale gas development surges in Ohio, the state has done little to strengthen regulations and procedures related to waste management. HB59, passed in 2013, directed ODNR to adopt rules for waste storage and disposal—but critical regulations have still not been put forward for public review and adoption. As a result, operators and disposal facilities have wide discretion to decide whether waste is contaminated and how to dispose of it.

Brine is the only type of oil and gas field waste tracked by state agencies in Ohio. Between 2011 and 2013, the volume of brine production increased over 50%, to reach 7.3 million barrels; nearly 40% came from horizontal wells.

The Ohio Department of Natural Resources (ODNR) and Ohio Environmental Protection Agency (OEPA) do not track or report volumes, origins, or destinations of solid waste (e.g., drill cuttings, muds, and fracturing sand).

Draft regulations do not include standards or limits related to waste storage and treatment methods, volumes, or chemical parameters, nor specify any practices (e.g., reserve pit burial or brine evaporation) that would be prohibited.

Ohio doesn't require operators to conduct chemical testing of drill cuttings disposed of at well sites or verify that they are "uncontaminated" according to the law. State agencies only recommend that landfills obtain documentation from operators about the content of waste.

No public information is available on the number, location, or use of pits and impoundments. **Ohio doesn't have specific requirements for the construction and use of pits and impoundments.** Draft changes to related regulations only request that operators use "sound engineering design and construction, and commonly accepted industry practices."

In 2014, ODNR issued authorizations for 23 waste facilities to process oil and gas field waste using "Chief's Orders" that circumvent public notification requirements and local government review. Even though companies in Ohio are pursuing projects to repurpose drill cuttings and other waste, Ohio doesn't have any regulations on the "beneficial use" of oil and gas field waste.

Operators are prohibited from disposing of Technologically Enhanced Naturally Occurring Radioactive Material (TENORM) waste at well sites and disposal facilities have limits on concentrations of radioactive elements. But such rules don't apply to **drill cuttings or brine, which can go into landfills with no testing because ODNR defines as them as Naturally Occurring Radioactive Material (NORM).** This distinction makes disposal easier for operators but creates environmental risks. **Nor does Ohio require radiation detectors at solid waste facilities.**

Nearly all of Ohio's produced water and fluid waste is disposed of in the state's underground injection wells. **Between 2011 and 2014, the volume of waste injected underground increased by 75%. Ohio does not require operators to test or disclose the chemicals in its waste prior to injection.**

Ohio does not have procedures or requirements in place to verify that "brine" spread on roads for de-icing and dust suppression is produced water, not flowback. The state's definition of brine includes flowback water from hydraulic fracturing.