EPA Said To Consider Lifting RCRA Waiver For Treated Drilling Waste

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EPA and states appear poised to weigh the question of whether a decades-old waiver excluding the majority of oil and gas production wastes from handling and other requirements under the Resource Conservation & Recovery Act (RCRA) applies to wastewater that has been treated for disposal to surface water or recycling.

State and industry sources say that if EPA makes a determination that some treated wastewater from hydraulic fracturing is no longer considered an exempted waste under RCRA, it could result in significantly stricter permitting requirements for disposal -- an approach that environmentalists are seeking in part to require regulators to consider potential seismic risks from underground injection of the wastes, industry’s preferred disposal method.

"Permitting-wise, if it's not exempt, it gets real interesting," a state source says.

One industry source indicates that it would increase the cost of handling waste from oil and natural gas operations and could stymie beneficial reuse efforts.

But the sources say that lifting or narrowing the exemption could also discourage water recycling and other beneficial reuse projects, which many drillers are beginning to consider due to concern about potential seismic risks.

"I am not aware of any EPA RCRA related proposals, but any action that would change the regulatory status of these wastes in the course of using them for recycling purposes would affect the decisions on developing recycling projects, I would think," the industry source says.

While EPA currently exempts most drilling waste from RCRA, the agency in a Bush-era guidance, titled "A Guide to Practical Management of Produced Water from Onshore Oil and Gas Operations in the United States," indicated that some treatment technologies, such as desalination, can result in brines and other products that "may no longer be classified as oil and gas wastes because they are a result of a treatment process." The guidance is available on InsideEPA.com. (Doc. ID: 2458242)

The question over the scope of the exemption is a topic slated for discussion during a Jan. 23 state/ EPA roundtable session at the Ground Water Protection Council (GWPC) annual underground injection control (UIC) conference in New Orleans, LA.

A state source indicates that the question concerning the RCRA exemption -- "RCRA Exemption Waste: Does it stay exempt after treatment?" -- appears to have been raised by EPA staff ahead of the roundtable, and says the issue appears to be whether treated "frackwater" or wastewater generated from fracking, is still exempt under the waste law following treatment to remove contaminants.

An EPA spokeswoman deferred to GWPC for clarification, saying that "EPA is not involved in this session."

The RCRA exemption for exploration & production (E&P) wastes stems from an amendment to the waste law offered in 1980 by then-Sen. Lloyd Bentsen (D-TX), that required EPA to determine whether drilling muds, oil production brines and other E&P wastes should be regulated as "hazardous" under RCRA’s strict subtitle C regulations.

EPA made an affirmative determination in 1988, holding that E&P wastes should not be regulated as hazardous wastes. In making its finding, EPA cited the burden hazardous waste rule would impose on industry.
According to existing EPA guidance, the exclusions specifically apply to waste materials intrinsically derived from primary field operations associated with the exploration, development or production of crude oil and natural gas.

Produced water, or the water brought up from below the surface along with the oil or gas, along with drilling fluids, drill cuttings, geothermal production fluids and a host other components of drilling waste are specifically listed as falling under the RCRA exemption, but flowback is not -- though it is generally considered exempt.

"Basically, it's all excluded now under RCRA -- it's fairly broad," one industry source says.

The agency's determination allowed drillers to dispose of the wastewater in less-regulated Class II underground injection control (UIC) wells, intended for "brines and other fluids associated with oil and gas production," rather than more heavily regulated Class I wells that are intended for "hazardous wastes, industrial non-hazardous liquids," and other waste streams.

In 2010, the Natural Resources Defense Council (NRDC) petitioned EPA to reconsider its determination in light of the toxicity of the waste, the failure of states to adequately regulate the disposal of the waste and the recent boom in oil and gas production from hydraulic fracturing. The factors EPA used to justify the original exemption -- the infeasibility of regulations, the adequacy of state regulations and the economic harm rules would cause industry -- are no longer true, the group said.

One concern that environmentalists raised since the petition was filed is that EPA's RCRA determination resulted in the agency regulating underground disposal of wastewater from drilling as lesser-regulated Class II UIC wells, which do not consider potential seismic effects, rather than more strictly regulated Class I wells, which require regulators to consider seismic impacts when siting wells.

In the years after the petition was filed, a series of earthquakes due to injection of fracking wastewater in Class II wells -- where regulators are not required to consider potential seismic risks -- has refocused attention on the issue and NRDC's petition.

The issue has been a special concern in Ohio and Texas where injection of fracking wastewater in Class II wells resulted in earthquakes, prompting intensified calls from environmentalists for EPA to reverse the exemption. In a 2012 blog post, NRDC charged "these incidents are yet another example of how the oil and gas industry gets special treatment when it comes to our bedrock environmental laws."

Despite the concerns, Texas and other states indicated recently that they are holding off on making any regulatory changes to address potential seismic risks associated with underground injection of wastewater, citing data gaps on what conditions would effectively reduce such risks (Inside EPA, Dec. 6).

But if EPA were to begin enforcing provisions in its 2006 guidance, that would subject some of the waste streams to stricter waste management requirements. The guidance says that while "raw" produced water may be disposed of under RCRA exemption, which allows for it to be sent to deep UIC wells with less strict requirements and costs for industry, brines and other products resulting from treating produced water would be considered "standard industrial wastes" as opposed to oil and gas wastes, which would mean increased regulatory costs and more limited disposal options.

While it is unclear why EPA is now raising the question of the exemption's scope, a second industry source says that EPA may be looking at the issue because of concerns that the heavy volume of wastewater generated from oil and gas development across the country are linked to increased seismic impacts in some regions from high volumes of disposal to permitted underground injection wells.

A third industry source says that the agency may be considering increased oversight of surface disposal or reuse of fracting wastewater, given that the concerns over seismic impacts may hamper disposal to UIC wells, though that source adds that "I've seen nothing which would indicate any EPA regulation under RCRA."

The third industry source adds that EPA may also be considering the issue now to help inform its consideration of the NRDC petition.

Other possible issues scheduled for discussion at the GWPC roundtable include EPA's recently issued Class VI UIC rules for carbon capture and storage, EPA's forthcoming guidance for fracking operations that use diesel, the agency's stormwater rules and others. -- Bridget DiCosmo