



RADIUM IN PRODUCED WATER – EGE POSITION

When it comes to cleaning/treating produced water for land application, there is much conversation on potential radioactive elements in the water.

Yet, it is a non-issue because of the Conservation By-Design™ method ensures that only safe, clean water goes onto the ground.

The process tests the water for multiple categories of potential elements, including radium. A report details what's in the water and how much of each element. The cleaning program is customized for that particular water.

If radium is found, it is then removed, just like other elements are removed. The radium is separated out and disposed of, just like salt is removed and disposed of. The trivial amounts of radium in produced water, if any, do not require special handling.

But what happens if

...the radium level is extremely high and not able to be cleaned? Then, it's not put on the ground. The fail/safe aspect of CBD dictates that the water is continually batched, tested, and monitored. This may mean that a land application project is not possible at that location.

...the radium level is high, can be treated, but requires special handling? Well, EGE will be 110% compliant in disposal.

Radium, of course, makes people nervous. Yet, radium occurs naturally in soil and rocks. It is NOT introduced into the oil or the natural gas well by the oil & gas industry. So, if radium does appear in the water, it got there naturally. But, like salt, you don't want it applied on your ground or for consumption by animals or humans. So, it is simply removed along with other elements you wouldn't want to have in the water.

As we discuss this, we must remember that often the radium conversation is part of a larger conversation to stop fossil fuel production. That's a different conversation. The conversation about radium in produced water is easily settled – if it's there, we'll take it out. If we can't take it out, the water doesn't go on the ground.