EPA proposed new regulations next week to reduce the water pollution impacts of coal-fired power plants. As EPA regulations go, these count as fairly minor. They got a bit of news coverage in coal country and industry publications. But they will eliminate the discharge of thousands of tons of pollutants, including a lot of metals that pose health problems. The rulemaking illustrates the highly technical nature of regulations and the lawless nature of Trump's EPA. It also gives some clues about where the Biden Administration may be headed in the way it approaches regulatory decisions.

Judges sometimes give the impression they think agencies simply pick regulatory standards based on bureaucratic whim. In reality, regulations involve some highly technical issues. A couple of sentences relating to "FGD wastewater," will give you the flavor of EPA's analysis: "More specifically, the technology basis for BAT would include chemical precipitation to remove suspended solids and scaling compounds prior to treatment with one or more stages of nanofiltration, electrodialysis reversal (EDR), RO, and/or forward osmosis. The permeate from the final stage of treatment would then be recycled back into the plant either as FGD makeup water or boiler makeup water." Fascinating stuff if you're an engineer, I'm sure, but the average judge has precisely zero expertise in these matters. There's a good reason for judges to defer to agencies on these issues.

As it happens, part of the justification for EPA's choice of this technology actually *is* interesting. The Trump Administration had decided that this type of filtration was not an "available technology." The reasoning was that it had only been in US pilot projects and in foreign facilities. I guess "America First" meant ignoring experience in other countries. The Biden EPA fairly briskly rejected that reasoning, based on "the numerous full scale foreign installations of membrane filtration to treat FGD wastewater, the large number of successful domestic and international pilot tests of membrane filtration on FGD wastewater, successful use of membrane filtration on other steam electric wastestreams, and the use of membrane filtration on wastestreams in a many different industries besides the steam electric industry." There's no question that EPA is right on the law: a technology can be "available" even though it's not used by the regulated industry. This is another indication of how little weight science and law carried in the Trump Administration.

Another interesting point relates to the cost-benefit analysis accompanying the rule. EPA has been able to quantify a lot of the impacts of the most common air pollutants. We know much less about water pollutants and their health and ecological effects. EPA provides a fairly lengthy list of factors that it was unable to

quantify but that seem potentially significant. The major quantifiable benefits of the regulation are indirect. They will result in the closure of only one coal plant but reduced usage of others, which will mean significant reductions in particular pollution and greenhouse gas emissions. Those account for the bulk of the quantifiable benefits.

Because so many benefits were unquantifiable, EPA emphasized other factors to justify the regulation. The industry could absorb the costs, with only one plant closure out of the current coal fleet. The impact on consumers' utility bills would be minimal: on average, 63 cents annually or about a nickel a month. In the meantime, the overall impact on water quality would be significant: a 12.5% decrease in waters with chronic water quality violations, a large reduction in acute water quality violations, and up to an 82% reduction in areas with water pollution concentrations above health standards. This move away from reliance on quantified benefits suggests that cost-benefit analysis may be less central to decisionmaking in this administration.

In contrast, the important of environmental justice considerations may be increasing: they're given careful consideration in the proposed rule and were analyzed in a separate document rather than being just folded into the standard "regulatory impact analysis." A shift in emphasis may well be underway.