On Thursday, I posted a list of Trump's energy and environmental executive orders. By Friday, it was obsolete. Four new Executive Orders shove safety and environmental concerns to the curb to make the American nuclear industry great again. (I'm surprised Trump didn't say anything about Making Atoms Great Again.) There's an argument for nuclear as a zero-carbon energy option, but Trump's orders provide little assurance that the reactors will be safe.

The Four Executive Orders

I'll try to provide a quick review of the four new executive orders. This is a quick take, and a lot more thorough, careful review will be needed as things more forward.

Here are the new orders:

1. <u>Deploying Advanced Nuclear Reactor Technologies for National Security</u>

This order promotes construction of nuclear plants with financing from private investors at military and Department of Energy (DOE) facilities. The agencies are supposed to eliminate environmental reviews wherever possible (using "categorical exclusions") and use emergency shortcuts as much as possible for the rest. There's also an emphasis on exporting nuclear technology and materials. Don't expect the Trump Administration to agonize over the risk of nuclear weapon proliferation.

2. Ordering the Reform of the Nuclear Regulatory Commission

This order rejects the model of radiation risk that the NRC currently uses in favor of models that downplay risks of small radiation leaks. (I don't know whether Trump's right about this, but it's hard to imagine a person in the U.S. who is less qualified to opine on the matter than he is.)

The order also tells NRC to give equal weight to ensuring safety and to encouraging the industry. ("Just as the Congress directed, the NRC's mission shall include facilitating nuclear power while ensuring reactor safety."). We used to have an agency that did both, the Atomic Energy Commission. Congress decided that was a conflict of interest. That's why it gave the role of safety regulation to the NRC and the role of promoting the technology to DOE.

As support for charging the NRC with promoting nuclear, Trump cites some language from a 2024 law telling the agency to conduct its activities in an efficient manner that doesn't

unnecessarily limit the industry. Notably, the provision he cites is a directive for the NRC to amend its mission statement, meaning it is more about agency culture rather than legal rules. Moreover, the 2024 provision is about the "manner" in which the agency acts, not the substance of the actions. In fact, the provision specifically requires the agency to continue to act consistently with prior statutory policies.

Even the language Trump quotes doesn't mean what he says it does. He reads it to say that NRC's mission "shall include facilitating nuclear power while ensuring reactor safety." But "do not unnecessarily harm" doesn't mean the same thing as "facilitate." It means that your main mission is to do *X*, but don't harm *Y* more than you have to.

You would never guess from the executive order that this particular provision is a small piece of an extensive law with lots of specifics about reforming agency procedures. Basically, Trump just ignores the fact that Congress has already created its own solution to the problems that Trump addresses.

The NRC will have a maximum of 18 months to review a license application for a reactor of any design, so novel designs won't get a thorough vetting. We're just seen with Boeing that there are risks with leaving safety issues of extremely complex technology in the hands of industry.

3. <u>Reinvigorating the Nuclear Industrial Base</u>.

This order promotes recycling spent nuclear fuel as a way of increasing supply and reducing the problem of long-term waste disposal. (One risk is the diversion of nuclear material by terrorists or rogue nations.) This Executive Order also tries to address financing for the industry, training of skilled workers .

4. <u>Reforming Nuclear Reactor Testing at the Department of Energy</u>

This order calls for testing new reactor designs on very accelerated schedules, with the goal of having at least three test reactors ready to operate about a year from now. The Department is supposed to "use all available authorities to eliminate or expedite the Department's environmental reviews."

<u>A Preliminary Assessment</u>

There are a lot of moving parts here. Trump clearly sees the Nuclear Regulatory Commission as a big roadblock to expanding the industry. Some of the orders try to get around the NRC at by involving the military or the Department of Energy.

I'm not sure placing the blame on the NRC is completely correct. It's at least arguable that the industry has two bigger problems: One is a technology that is very expensive compared with natural gas and renewables. (Naturally, the executive order doesn't consider any renewables as possible alternative source of power.) Frankly, the only real reason for the U.S. to consider nuclear is climate change, given the economic advantages of other technologies. The other brake on nuclear energy is public distrust in many parts of the country. The NRC procedures may simply be reflecting public opinion.

Cutting safety precautions and lightning-fast licensing would help on the cost side but could also amplify anxiety about safety. The public isn't wrong: Everything we know about Trump says that experts will have little sway in making highly technical decisions. We're more likely to have decisions made by Fox News figures or social influencers.

Diluting safety and environmental reviews is also likely to lead to a lot of litigation, which will slow licensing to a crawl. In addition, Trump is still counting on private investors to back the industry. Investors know that what one President can do by executive order, the next President can undo. So it could be risky to make investments in facilities that will be around for many decades, based on what could be an evanescent presidential policy. I'd like to stay open-minded about nuclear power, but if it's going forward under with Trump in driver's seat, it's hard to have much confidence.