Trump Administration Advocates for Nuclear Power

Co-authored by Ronald Stein, Oliver Hemmers, and Steve Curtis

June 24, 2025

Affordable and reliable electricity from nuclear power sources is a necessity to ensure future balanced economic growth that is a lifeline out of poverty, and security for citizens around the world.

While we have seen the acceptance and advancement of nuclear power explode in the United States just over the last year or so, the recent executive orders issued by President Trump have added a strong endorsement of nuclear power.

Reading through these executive orders, it seems that there are clear commitments to remove the roadblocks that are slowing down progress in the name of safety.

The primary roadblock over the last 50 years has been the Nuclear Regulatory Commission (NRC) with its 3,000 employees. In addition to the $1 billion allocated in the Federal budget, at least 80% of the NRC budget is funded by fees paid by applicants for licensure, which amount to $300 per hour.

The tenor of the Order is to impel the NRC to establish procedures to ensure that new reactor applications are processed to completion in 18 months (or less) while renewal applications take 12 months (or less). These are ambitious culture changes for the organization, especially since they

are ordered to do so while reducing staff. No agency of the US Government likes to reduce staff and, indeed, the NRC will claim that such an accomplishment is too onerous to achieve. Nothing new here. It remains to be seen whether the executive order is robustly enforced.

The Navy's seven-decade safety track record with nuclear-generated electricity to support national security began before the establishment of the Nuclear Regulatory Commission (NRC) and its subsequent regulatory framework. Commercial nuclear power plants utilize the light water reactor design, pioneered by the US Navy. All submarines and aircraft carriers are powered by nuclear energy. Operating more than 80 nuclear-powered ships, the United States Navy is currently the largest naval force in the world.

Nuclear power reactors remain the safest industry, by far, in the US and around the world. In fact, no person has been hurt by the normal operations of any commercial nuclear power plant anywhere in the world in almost 7 decades (Three Mile Island and Fukushima accidents hurt nobody, and Chernobyl was not under "normal operations" when it catastrophically failed).

Given this safety record, it would seem very easy for the NRC to establish a process to certify systems that are already so safe. It begs the question of why we need the NRC at all. The point is that nuclear safety should be viewed under the scrutiny of a long record of safe operation, not by the myopic view imposed when very little operational data was available. This is especially true during a time when many people claim to want "clean air" and the demand for reliable electricity is expected to ramp up to unprecedented levels. We will now discuss the first of the recently published nuclear power executive orders.

NuScale, the only company successful in attaining a license for a Small Modular Reactor, expended 10 years and $500 million to attain such a license. This stoppage of progress

should appall everyone.

It has been clear for several decades that the onerous regulations and nearly impossible task of attaining a license to build and operate nuclear reactors has pointed to the US Government as the primary obstructer for the nuclear power community.

Changes in regulations and delays in approvals have forced huge cost overruns. Nevertheless, the two reactors completed in this realm, Vogtle 3 and 4 in Georgia, still offer competitively priced electricity for the grid.

Therefore, removing the US government's obstacles to progress appears to be the path to even cheaper electricity through nuclear power. A further development, not yet resolved, is to open the electricity market to free enterprise. The cost reductions available through competition in this market are huge, indicating that such a move may be next in line. We certainly encourage the government to further withdraw from the mix and deregulate electricity from its current monopolistic framework.

The Executive Order, rightfully so, identifies the radiation protection model, the Linear No-Threshold (LNT) model, as a further costly imposition on nuclear power plants with no added safety advantage. For a deeper analysis of this issue and a more sensible model called Sigmoid, No-Threshold (SNT), please consult Jack Devanny's excellent book, "How We Can Make Nuclear Cheap Again".

The point here is that if we overregulate safety, we will add significant costs to products that are unnecessary, as they do nothing to improve safety. Again, the excellent record of nuclear power plants over 7 decades should tell us that.

If we imposed similar safety restrictions on automobiles (no harm to people), we would end up with a car that weighed 10,000 pounds, got 3-4 miles per gallon, and was restricted to

no faster than 10 mph on the road. Yet, citizens accept the over-40,000 deaths caused by automobile operation annually in the US to enjoy their benefits.

Yet, nuclear power reactors have a track record of no deaths under normal operations and suffer the most onerous safety regulations among all industries. Environmental damage is likewise extremely minimal. So, relaxing the National Environmental Protection Act (NEPA) will not increase environmental danger either.

So, if you want cheaper, cleaner, and reliable electricity, get these government monkeys off the backs of companies trying to bring you much more affordable and cleaner electricity. This Executive Order recognizes this reality and is moving to reduce these unnecessary and expensive regulations.

The Executive Order includes a goal of increasing nuclear power by 300 GW (moving it from 20% of current demand for electricity to 80% in the US) by 2030. This is a tall order, but America put a man on the moon with slide-rule technology in the 1960s, so the US certainly can attain this goal. We simply need to return to fair market processes and free enterprise. The companies exist, and the technology exists to do this now. We just must set them free. This Executive Order also calls for this.

Finally, the Executive Order calls for more streamlined NRC licensing processes that utilize fewer personnel. If we have smart people in nuclear power technology, wouldn’t they be best used to advance the technology rather than stop it? As mentioned earlier, we are discussing the safest industry in the world over the last seven decades. Indeed, this alone should greatly reduce the need for scrutiny.

So, the President has established his priorities (there are three other parts of this Order we will consider in future articles). Get the government out of the way of progress and

allow free enterprise to bring us cheap, clean energy. He also encourages the recycling of slightly used nuclear fuel (SUNF). As pointed out in previous articles, by using fast reactors, the current stockpile of SUNF could power the US at its current demand for electricity for 270 years.

Indeed, the most expeditious path to the disposition of this material should be encouraged, and no plan exists today to dispose of this material in the US. Accelerating the process would produce far more electricity than our current and future needs, so (more supply than demand) would force the retail price of electricity to pennies per kWh or less. The nay-sayers for nuclear power have not improved their rhetoric for decades and still offer the same propaganda they have always exaggerated, with no comparison to the safety record of this industry and no consideration of its benefits.

Perhaps it is time to weigh the benefits against the risks. If we do, nuclear power comes out way ahead of other electricity production methods. This Executive Order is at least a step in this direction. We need to ensure it is enforced and strengthened to allow for an improvement in quality of life at a cost of pennies per kWh of electricity for everyone in the world.

Please share this information with teachers, students, and friends to encourage Energy Literacy conversations at the family dinner table.

Click this Link to Sign up for Energy Literacy from Ronald Stein

E-Mail Ronald Stein: Ronald.Stein@EnergyLiteracy.net