From: Leslie Potter
To: RulemakingComments Resource
Subject: [External_Sender] Docket ID NRC-2020-0101: Do Not Weaken Emergency Preparedness for Nuclear Reactors and Other Nuclear Facilities--Strengthen it!
Date: Tuesday, July 21, 2020 2:04:59 PM

Nuclear Regulatory Commission (EPZs)

RE: Docket ID NRC-2020-0101: Do Not Weaken Emergency Preparedness for Nuclear Reactors and Other Nuclear Facilities--Strengthen it!

Dear ,

Commissioners and Staff of the Nuclear Regulatory Commission:

I am writing in opposition to the U.S. Nuclear Regulatory Commission's proposed rule change, docketed in the Federal Register (NRC-2020-0101), to reduce the emergency preparedness requirements for small modular reactors, "other new technologies," and production and utilization facilities.

The scope of this rulemaking could potentially affect millions of people. Because of the COVID19 Pandemic, many people do not have the time to engage and review it right now. In light of this reality, I strongly encourage NRC to extend the comment period to 6 months after the end of the COVID-19 crisis.

NRC is proposing to eliminate the requirement of dedicated minimum Emergency Planning Zones (EPZs) for the above-referenced facilities, and for site-specific Emergency Response Plans that must be reviewed and approved by the Federal Emergency Management Agency (FEMA). Instead, the proposed regulations would allow licensees to determine what the size of the EPZ should be (or whether offsite emergency planning is necessary at all), based on the probability that people would be exposed to more than 1000 millirems of radiation. This proposed rule change must be rejected.

Emergency planning requirements have been a bedrock of nuclear safety regulation for over 40 years, since the Three Mile Island disaster proved that large releases of radiation were possible, ad hoc emergency response measures are inadequate, and that nuclear disasters present unique challenges requiring advance preparation and coordination with state and local agencies. NRC has affirmed the importance of requiring offsite emergency planning on multiple occasions since the requirements were adopted in 1980.

BUT HERE'S THE GREATEST PROBLEM GOING FORWARD:

Emergency planning requirements for nuclear facilities will be more essential than ever due to CLIMATE CHANGE. Natural disasters that could cause nuclear emergencies, as well as complicate emergency response plans, are increasing in both severity and frequency. But NRC's proposed rule and supporting documents do not even mention climate change or extreme weather events once. It is arbitrary and capricious for NRC to promulgate nuclear safety and emergency planning regulations without taking into account the real-world conditions of the climate crisis.

Emergency planning is part of the social contract for commercial nuclear facilities. It is the very last line of defense to protect public health and safety when safety regulations, reactor designs, defense-in-depth, and NRC oversight fail. The public bears the ultimate risk from a nuclear disaster. As the National Academy of Sciences affirmed in its seventh review of the Biological Effects of Ionizing Radiation (BEIR VII), there is no "safe" level of radiation exposure--every amount of ionizing radiation exposure results in an increased risk to a person's health. In addition, the Price-Anderson Act limits the nuclear industry's collective liability for radiological disasters at its facilities to only $13 billion. Under the act, victims are left to seek damages from the federal government, forcing the public to

sue our own government and ultimately requiring our fellow taxpayers to pay the bill for the industry's failures. In exchange for subjecting the public to what may ultimately be incalculable losses to health, family, career, community, and home, NRC licensees must create and maintain (and pay for) plans to enable people to get out of harm's way when nuclear safety measures fail and probability estimates prove wrong.

In practice, NRC's current emergency planning requirements under 10 CFR 50.33 have been demonstrated to be inadequate in real-world situations. They should be made more stringent, not less, and not based solely on calculations of risk.

Large amounts of radiation requiring evacuation in the Fukushima Dai-Ichi and Chernobyl disasters extended far beyond the 10-mile radius evacuation zone NRC requires; in fact, the US government recommended that all US citizens within 50 miles of Fukushima Dai-Ichi evacuate in 2011. US Navy sailors on the USS Ronald Reagan, which was involved in relief efforts in the immediate aftermath of the Fukushima disaster, allegedly suffered illnesses from radiation exposure encountered up to 50 miles offshore. Also, restrictions on consumption of crops and food in locations more than 1,000 miles from Chernobyl are still in place today, though they are more than 20 times farther from the reactor site than NRC's current food and water ingestion pathway EPZ of 50 miles.

The small modular reactors (SMRs) and non-light-water reactors (NLWRs) this rule change would apply to are smaller than the Fukushima Dai-Ichi reactors and Chernobyl unit 4, but they would still contain large amounts of radiological material. The proposed NuScale SMR reactor design is rated for 50-60 MW, about one-tenth the size of Fukushima Dai-Ichi units 1 and 2; however, the NuScale SMR currently under design certification review is intended to be built with 12 reactor units in a single reactor building, making each NuScale plant equivalent to a conventional large reactor. As the Fukushima Dai-Ichi disaster proved, a single event can cause multiple reactor failures on the same site: all three operating reactors melted down; also, the unit 3 meltdown caused a hydrogen explosion at the shut-down unit 4, devastating the reactor building and leading to the potential for a spent fuel pool fire. The proposed Holtec SMR design is 160 MW, similar in size to the decommissioned Yankee Rowe LWR reactor in Massachusetts and the Fermi unit 1 sodium-cooled fast reactor, which had a partial meltdown in 1966.

It is arbitrary and capricious for NRC to assume that license applicants for new reactor designs should be able to exempt themselves from emergency planning requirements solely on the basis of risk calculations. NRC has no experience regulating many potential reactor designs.

In addition, by creating a process for "small" reactors to eliminate offsite emergency planning through a cold calculation of the probability that a radiation release would not be large enough to warrant emergency response, NRC is opening the door for reactors of any size, design, and vintage to reduce or eliminate emergency planning.

NRC appears to be subjugating its prime responsibility to protect the public health and safety under the Atomic Energy Act as amended in 1975 to industry financial interests in lightened regulatory burden and streamlined licensing procedures. The public can have no confidence in this proposed regulation, and it must be rejected.

Sincerely,
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