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Re: NRC-2020-0065

To Whom it May Concern,

On March 6, 2020, the Nuclear Regulatory Commission (NRC) published a proposed interpretive rule that would permit what it is choosing to call "very low-level" radioactive waste in landfills. The term "very low-level waste" is not currently defined in the Atomic Energy Act or its accompanying regulations. This proposed regulatory decision has potentially long-lasting effects, in the form of radiation contamination and exposure across centuries, and risks threatening public health for many generations.

What the NRC proposes, by way of "reinterpretation" of existing rules, is to reverse longstanding requirements that mandate licensed control over radioactive wastes and materials generated by a licensed nuclear facility. The NRC seeks to abandon its regulatory authority over the destination and disposition of potentially significant quantities of various types of radioactive waste. The NRC's reinterpretation would authorize any of the 2,600 municipal and private sanitary and industrial landfills and hazardous waste sites in the United States to seek an "exemption" to receive and dispose of radioactive waste.

The proposed rule changes the disposal basis from quantity of radioactive waste (curies or other similar units of measuring the absolute amount of radiation) to exposure dose (millirem/yr of exposure). It's the dose-basis, rather than the current quantity-basis that creates concern. Although the 25 millirem/yr is not unreasonable as a dosage limit, this change in the standard is highly misleading. With this proposed "reinterpretation," the NRC could allow undefined and potentially large quantities of radioactive waste into municipal landfills, near populated areas, as "very low-level waste" as long as the landfill owner measures radiation levels below 25 millirem/yr at the site. The concerns arise from when and where that dosage is measured. After burying the radioactive waste and putting a fence around the landfill, it would be relatively easy to meet the 25 millirem/year dose regulation.

A bigger concern is potential leaching of radiation from the landfill during operations, throughout its lifetime, and after capping. Many municipal landfills do not have an extensive leachate collection system like current hazardous and radioactive waste landfills do. Hence, there is a potential for leaching into groundwater and waterways for municipal landfills that get a permit to accept low-level radioactive waste streams, but are not equipped for proper long-term control and monitoring. Note also that the new

regulation foregoes the "cradle to grave" approach for regulatory control and documentation. This means that if a cleanup is needed because of a groundwater issue, the source of that waste stream (i.e. the company who generated it) would be extremely difficult to locate.

The change would allow a larger concentration of radioactive waste to meet the safety analysis requirements by simply being shielded or being fenced at a distance from the public. There is no mention of further safeguards in the new proposed rule, such as leachate collection and "closer in" radiation monitoring. This would potentially allow large low-level radioactive waste generators to avoid significant radioactive waste disposal costs by transferring waste materials into currently unallowed landfills that were not designed for hazardous waste, that could have poor or no leachate collection, and/or are situated near populated areas or large bodies of water. This could ultimately transfer the increased costs of monitoring, and liability, to the landfills and municipalities (if city/government-owned) rather than the waste generator.

The proposed new exemption procedure is, in effect, a permit for unregulated disposition of licensed radioactive material and waste by another name. This process of granting exemptions or *de facto* permits will not be carried out transparently or with public input and will spur creation of an entirely new class of radioactive waste disposal and processing sites. Site-specific radiation emission limitations data and extrapolations from modeling will be nonpublic, proprietary secrets. Even if local governments or members of the public discover that a local landfill or waste site is accepting radioactive waste, they will have no notice or right to know how radioactive that material may be, how much has been received, treated or disposed, nor will they have any say in whether or how effectively it is being physically contained over time.

Further, while the NRC aspires to have its new interpretation apply only to landfills, it is not mandating it. Its proposed 25 millirem/year dose limitation on "specific exempt" entities to receive radioactive waste is an invitation for "specific exempt" facilities to spring up in semi-secrecy to dispose of nearly all of the "low-level" radioactive waste in the US, and low and intermediate level waste from abroad.

If this interpretative rule is adopted by the NRC, landfills could potentially apply to accept radioactive waste without regulatory oversight on the part of state or local authorities. The risk entailed through events such as landfill fires or potential leaching of radioactive materials into surrounding watersheds is one that cannot be ignored.

At a minimum the new proposed rule needs modifications including:

1. Complete public transparency for landfill operators/owners applying for a permit to accept this "low level radioactive waste";
2. Requiring review and approval from the local jurisdiction (city, county, township) in which the proposed landfill resides as a condition of permit application; and
3. Changing the regulation from dose to an absolute quantity of radiation and regulation of the radioactive elements allowed in the waste stream (e.g., cesium, tritium etc.).

Thank you



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Chief Environmental Officer