

**NRCREP - 71 FR 130:38675-38676**

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**To:** <NRCREP@nrc.gov>  
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I endorse the following comments.

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71 FR 38675

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Comments on 71 FR 130:38675-38676  
Nuclear Regulatory Commission's Low-Level Radioactive Waste Program

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The US NRC is reviewing the role, responsibilities and activities of its Low-Level Radioactive Waste (LLRW) regulatory program.

As usual the questions posed by NRC are directed toward the nuclear industry, the licensees and generators of radioactive waste—those which the NRC LLRW program has traditionally served, rather than the general public which expects radiation protection.

NIRS and our colleagues are answering the questions, to the extent we can, but more generally will reflect what we believe the public expects from NRC with regard to protection from so-called "low-level" radioactive waste.

First of all the definition of "low-level" radioactive waste in the United States includes materials that are not low-risk but high risk. All radionuclides, some with no upper concentration limit, are included in the so-called "low-level" category. Some "low-level" radioactive wastes can give a lethal dose in less than an hour. For decades, environmental groups and others have called on NRC to reclassify as higher-level, all radioactive waste that is hazardous longer than the 100 year institutional control period required for "low-level" radioactive waste sites.

Instead, NRC is part of a perilous interagency and international effort to declassify radioactive waste...so that it requires less or no institutional and regulatory control. We oppose these efforts and call on NRC to increase its regulatory control not reduce it or facilitate reductions. We are on record opposing declassification of high level radioactive waste from reprocessing to Waste Incidental to Reprocessing and opposing a new category of low radioactivity or low activity wastes which could then be removed from licensed regulatory control. We support classification and regulatory control of long lasting wastes such as depleted uranium in facilities designed for their longevity—not "low-level" waste sites and we call on NRC to act responsibly regarding these materials. NRC's LLRW program should put its efforts and time into better, increased control of radioactive materials.

Secondly, we oppose risk-informed regulation for both the reactor and materials programs, which NRC adopted, against public will, as part of its strategic baselining. The simple reason for this opposition is that NRC is denying and not fully evaluating the risks of ionizing radiation at low doses and in combination with other pollutants. NRC relies on bodies such as the ICRP to recommend standards but those bodies admit there are potentially unknown risks and

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uncertainties but fail to account for them, especially at low doses and dose rates. Health effects, particularly at low doses, are underestimated and ignored. NRC and those upon whom it relies to estimate risks fail to incorporate the uncertainties and known risks to vulnerable parts of the population into its risk assessments. Thus risks are ignored and underestimated. NRC, its licensees and the radiation hierarchy upon which they rely should be protecting the public rather than permitting them. The outcome is weaker, less protective standards and lower weight for public and environmental health in risk based decision-making. The risk assessments that are done do not have the power or intent to incorporate non-cancer and other health effects or environmental damage. NRC needs a different method of damage analysis for both predictive and retrospective assessments. A system based on precaution is the only prudent method.

Third, we call on NRC to minimize public exposures and environmental releases of radioactivity from nuclear waste. This means preventing unnecessary generation of radioactive waste and fully regulating that which is generated. It means regulating with a goal of keeping track and control. Rather than risk-informed (de)regulation, it means precaution: a goal of preventing exposures, not setting new, higher, or more "flexible" allowable contamination levels or declassification of wastes to meet lesser protection criteria. We oppose the deregulation of radioactive wastes, from high to "low" level and from "low" level to unregulated, cleared, released, de minimus or any other category essentially equivalent to below regulatory concern. We oppose use of NRC staff time and energy on the recategorization of waste to a new "low-activity radioactive waste" class.

We support NRC development of regulations that have a goal of preventing release and exposure rather than legalizing contamination and leakage. During the many years of siting for new "low-level" radioactive waste dumps across the country there was a common message that NRC never seemed to hear— isolate and re-containerize. As of 2006, 10 CFR 61 still allows unlined soil trench burial of radioactive wastes and leakage from the licensed burial sites. NRC efforts could be expended to tighten up on these weaknesses in the existing regulations.

Numerous states have prohibited shallow land burial, some even requiring above ground storage. We support continued state authority for greater protection and encourage NRC to strengthen its "low-level" waste management and disposal requirements. As long as licensed sites are permitted to leak and emit radioactivity, it will be difficult to garner public support for them. Yet it is arguably worse to send radioactive waste to unlicensed sites, where there is no expectation by the public of receiving a dose. We oppose this use of staff time.

One could ask, should NRC expend its resources licensing new sites and facilities, regulating or assisting agreement states in regulating and expanding existing ones, or facilitating alternative management of radioactive waste. It is an interesting and intriguing discussion but when carried out in the absence of due concern and care for the health effects of exposure to ionizing radiation it is irresponsible and dangerous. "Creative" options for managing nuclear waste, such as the use or misuse 10 CFR 20.2002 to deregulate nuclear waste will lead to more public exposures and in some cases, creation of more mixed radioactive and hazardous waste. For example, sending nuclear waste from decommissioning to hazardous waste sites, especially in the absence of sound scientific knowledge about the synergistic effects of radioactive and hazardous wastes is completely irresponsible.

Finally, the NRC LLRW program should strengthen the requirements isolation of radioactive materials and wastes at licensed radioactive waste facilities.

It should require and provide transparent routine reporting of waste generated at each site and its storage, disposal and final destination.

While NRC perceives its mission to "ensure a stable, reliable and adaptable regulatory framework for effective LLRW management while also considering future needs and changes that may occur in the nation's commercial LLW management system," the public needs prevention of exposures to radioactive waste. While NRC spends its time calculating allowable doses to the public from licensed sites and from the release of nuclear waste from licensed control, the public trust is being betrayed. Even worse are NRC's efforts and tendency toward generically deregulating radioactive waste and materials. We are glad that action on the proposed rule that would have generically deregulated nuclear waste has been postponed, and we advocate complete and permanent rejection of it.

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