



HEALTH PHYSICS SOCIETY

Specialists in Radiation Safety

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President 1998 - 1999

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April 9, 1999

RCRA Docket Information Center
Office of Solid Waste (5305W)
US Environmental Protection Agency Headquarters
401 M Street, SW
Washington, DC 20460

RE: Docket Number F-99-MLLP-FFFFF
Storing Mixed Low-Level Radioactive Waste

Dear Sirs:

The Health Physics Society (HPS) is a scientific organization of professionals whose mission is to promote the practice of radiation safety. Today its nearly 6,000 members represent all scientific and technical areas related to radiation safety including academia, government, medicine, research and development, analytical services, consulting, and industry. The Society is chartered in the United States as an independent non-profit scientific organization, and, as such, is not affiliated with any government or industrial organization or private entity. Society activities include encouraging research in radiation science, developing standards, and disseminating radiation safety information.

The HPS **commends** the Environmental Protection Agency (EPA) for the Advanced Notice of Proposed Rulemaking (ANPR) addressed by the referenced Docket Number and its effort to eliminate overlapping regulatory programs. In general, the HPS **believes** that timely treatment and disposal of Mixed Low-Level Radioactive Waste (MLLW) is prudent and that Nuclear Regulatory Commission (NRC) and Agreement State radiation regulatory programs provide sufficient controls to assure the safe storage and on-site treatment of MLLW at licensed facilities. **Furthermore**, the storage of MLLW allowing sufficient time for the radioactive decay of short-lived radionuclides (i.e., decay-in-storage) at licensed facilities is a safe and reasonable practice, presenting no harmful exposures to people or the environment.

In Section II.A.6 of the ANPR, EPA asks “whether a conditional exemption or similar approach should apply to all generators of mixed waste or be limited to specific industries, such as nuclear power plants.” The HPS **recommends** that such exemption be applied to all generators of MLLW. Wastes of similar chemical, radiological and physical characteristics should be regulated in the same manner, without regard to their origin. This position is based on the premise that MLLW stored pursuant to NRC and Agreement State regulatory programs, protecting people and the environment from radiation exposure, are also sufficient to control risks from the non-radioactive hazardous constituents. The HPS **strongly supports** the statement in Section 7B of the ANPR that EPA should “allow these generators to store MLLW on-site in accordance with their NRC licenses and *without* a RCRA storage permit, for the purpose of decay-in-storage where the practice is approved for LLW under the facility’s NRC or Agreement State license.” Decades of experience demonstrate that all categories of licensees can safely store and manage such wastes.

In section II.C of the ANPR [*Can I Treat Waste During Storage?*], EPA states “On the other hand, more specific control might be appropriate for some forms of treatment, such as thermal treatment, because of concerns for air emissions and the specificity of RCRA requirements in this area.” In Section V.B of the ANPR, EPA states that liquid scintillation counting (LSC) fluids account for the bulk (>70%) of the MLLW stored. Those fluids containing RCRA-regulated organic solvents are prohibited from land disposal per 40CFR268.35. The HPS **considers** thermal treatment has been, and continues to be, a safe and effective treatment method for this type of waste, meeting all air quality, RCRA and radiation protection standards. Currently H-3 and C-14 LSC fluids of specific activity <0.05 μCi per gram of medium are authorized for disposal as non-radioactive waste per 10CFR20.2005. This exemption allows these LSC fluids to be managed solely pursuant to RCRA requirements. The HPS **recommends** broadening this exemption to include LSC fluids containing other radionuclides present in very low concentrations, where protection of the workers handling such materials, members of the public, and the environment can be assured by licensees.

The HPS appreciates EPA’s efforts to eliminate the dual regulation of MLLW, especially acknowledging the sufficiency of NRC and Agreement State radiation regulatory programs to safely manage short-lived radioactive wastes by decay-in-storage. The HPS welcomes the opportunity to provide further assistance to the EPA on this matter and other issues regarding radiation protection and radioactive waste management.

Sincerely,



Keith H. Dinger, CHP
President