



E.I. DU PONT DE NEMOURS & CO. (INC.)  
 MEDICAL PRODUCTS DEPARTMENT

January 30, 1991

Office of Nuclear Materials Safety and Safeguards  
 US NRC  
 Washington, D.C. 10555

Attention: James Kennedy

Subject: Federal Register/Vol. 55 No. 233/Tuesday, December 4, 1990/  
 Recommendations on the Title Transfer Provisions of the  
 Low-Level Radioactive Waste Policy Amendments Act of 1985

On behalf of the Greater Boston Area Manufacturing Division, Medical Products Department, E.I. DuPont de Nemours and Company and the Dupont-Merck Pharmaceutical Company we are pleased to submit the enclosed comments to the above-referenced subject.

The DuPont Greater Boston Area Manufacturing Division is a major supplier of radioactive materials for biomedical and industrial research applications. The DuPont Merck Pharmaceutical Company is a major manufacturer of radio pharmaceuticals for nuclear medicine applications.

We are concerned that the implementation of title provisions of the Low-Level Radioactive Waste Policy Amendments Act ("LLRWPA") of 1985 does not in itself assure the degree of control and optimization of safety that we consider necessary in managing low level radioactive waste. We recommend that in addition to implementing the provisions of the 1985 Act that the US NRC reconsider the need for a federally controlled, centralized waste storage and disposal capacity as an alternative provision or as a contingency in the event of failure of other waste storage and disposal plans.

We appreciate the opportunity to comment on the issues of ownership and management of low-level radioactive waste.

Yours sincerely,

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GENERAL COMMENTS ON RECOMMENDATIONS ON THE TITLE TRANSFER PROVISIONS  
OF THE LOW LEVEL RADIOACTIVE WASTE POLICY AMENDMENTS ACT OF 1985

1. Greater than 95 percent of the radioactive material used in the manufacture of research chemicals becomes low level radioactive waste (LLW). Similarly a large fraction of radioactive material used to manufacture radiopharmaceuticals becomes waste including long lived radionuclides unavoidably generated during the primary irradiation operations. In the USA the majority of this waste is generated by a few licensees who are manufacturers. The advantage of this system is that these licensees can employ economies of scale and focus essential technical expertise to optimize the safe and cost effective management of this waste. This together with the availability of safe disposal facilities ensures that vital biomedical research and nuclear medicine facilities are sustained for the benefit of our society.
2. We are encouraged that the US NRC is considering further steps to implement the requirements of the LLRWPA. We are, however, concerned that the current direction of this process may lead to the proliferation of numerous short term or long term waste storage and disposal sites in less than optimum locations with less than optimum resources available for their safe management.
3. The LLRWPA was based on experience gained during the 1960s and 1970s when low-level waste generation was increasing and expected to continue increasing. During the past decade the US NRC has successfully encouraged licensees to reduce their waste and new technologies promise even further reductions in waste volume. The best way to manage this waste is to dispose it in a centralized facility provided with optimum resources to assure safety for the public. This is the way it is done in other developed countries. We already have such facilities.
4. We strongly urge that the time is right for the US NRC to reevaluate waste generation practice and trends and prepare for an alternative program that would provide for centralized national waste storage and disposal.
5. While we believe the reconsideration of centralized disposal for LLW to be vitally important we are not suggesting that the US NRC should discontinue implementation of the LLRWPA. Instead, we urge that both programs should be pursued until it becomes clear that one is redundant and can be dropped.

SPECIFIC COMMENTS ON RECOMMENDATIONS ON THE TITLE TRANSFER  
PROVISIONS OF THE LOW LEVEL RADIOACTIVE WASTE POLICY AMENDMENTS  
ACT OF 1985

1. "What factors should the Commission consider in deciding whether to authorize on-site storage of LLW ..."

The US NRC should consider the following factors:

- a. Availability of resources for continuous monitoring of the stored waste.
  - b. Availability of regulatory inspectors.
  - c. Clarification of authorizations for 5 or 10 year storage. Mixed waste and orphan waste currently not permitted at burial sites has already been stored for at least 5 years. When does the clock start?
  - d. Licensees currently put waste in a stable form prior to disposal. Licensees cannot anticipate what waste forms will be acceptable in 5 or 10 years time. If licensees stabilize their waste prior to storage this waste may need to be reprocessed, or in situations where the waste process is irreversible the licensee may have to permanently store the waste.
  - e. Alternatively, licensees may be forced to store waste in an unprocessed form until ultimate disposal requirements are defined. This could incur prohibitive costs to engineer effective containment to ensure the same level of safety to the public as stabilized processed waste.
  - f. Any increase in waste costs and an economic downturn could be expected to cause some licensees to become bankrupt. There needs to be additional provisions to ensure that bankruptcies do not lead to a loss of control that could affect the public safety.
  - g. Licensee decommissioning plans include the provision of surety funds based, in part, on the anticipated cost of waste generated during decommissioning. What are the financial and regulatory provisions for waste stored on site from previous operations and what are the provisions for both stored and decommissioning waste in the event of a disposal site not being available?
  - k. DuPont meets regularly with local residents as part of its good neighbor policy. At most of these meetings neighbors express concern that we may be increasing the storage of waste. There is a need for the US NRC to include the incorporation of incentives to local residents in getting public acceptance of waste storage and disposal.
2. "What are the potential health and safety and environmental impacts of increased reliance on on-site storage of LLW?"

The reason why we pay large sums to ship LLW to a disposal site is

because this is considered to be a safer method. Forcing excessive storage time in less than optimum locations can be expected to increase the potential for accidents. This would be of particular concern for universities and hospitals located at urban facilities which are cramped and archaic and may have already reached their storage capacity.

3. "What are the advantages and disadvantages of transfer of title and possession as separate steps?"

We believe that taking title is meaningless unless that also includes possession.

4. "... other specific issues that would complicate transfer of title and possession ...."

- a. There is a need to address mixed waste, orphan waste and NARM waste.