



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

November 22, 1989

The Honorable Carl Levin  
United States Senate  
Washington, DC 20510

Dear Senator Levin:

I am responding to your latest letter, dated October 23, 1989, which requested our views on the issues raised in a petition from Michigan residents who are opposed to any deregulation of low-level radioactive waste. The petition, submitted by Ms. Kay Haffner, had previously been sent to us in response to an advance notice of policy development which we issued on December 12, 1988 (53 FR 49886). This notice is the one we enclosed in our May 2, 1989, response to you, which addressed similar concerns expressed by other Michigan citizens.

In responding to Ms. Haffner, I would point out that any low-level waste considered to be "below regulatory concern" (BRC) under the provisions of the Low-Level Radioactive Waste Policy Amendments Act of 1985 (P.L. 99-240), would only involve materials with the lowest levels of radioactivity content. As a result, the implication that more hazardous radioactive low-level waste could be disposed of as BRC waste is incorrect. In fact, the level of radioactivity for some potential BRC wastes may be such a small fraction of natural background radiation that it may not be readily detectable.

In further addressing the concerns of Ms. Haffner and the other petition signers, it may be helpful to summarize the typical exposures which we all routinely receive from a variety of sources of radiation. These exposures occur from radiation that is natural in origin as well as from sources which involve man-made uses of radioactive material. In total, as estimated by the National Council on Radiation Protection and Measurements (NCRP Report No. 91), the effective dose equivalent received by the United States population averages about 360 millirem per year. Of this total, about 300 millirem per year (or over 80% of the total) is a result of natural sources, including radon and its decay products while medical exposures contribute an estimated 53 millirem per year. Other man-made sources contribute the remaining 1 to 2% of the total exposure, including the sources of concern mentioned by Ms. Haffner (i.e., nuclear fallout and nuclear power plant effluents). I am presenting this total exposure "picture" to provide a perspective on the hypothetical risks which may be associated with potential BRC waste disposal practices. This perspective is one of several that the Commission believes are relevant to its decisions involving regulatory resource allocations to control the potential radiological risks associated with the use of radioactive materials.

With regard to Ms. Haffner's concerns on reconcentration mechanisms, I would point out that the Commission considers these concentrations mechanisms when it calculates the doses which potentially could be received through the food-pathway. Similar consideration is given to the long half-life radioisotopes and to the chemical and/or physical form of the radioactive material.

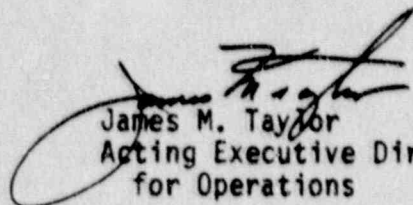
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In closing, I believe that the issue of proper and reasonable disposal of all our society's waste is one upon which the public's attention is, and should continue to be, rightly focused. The Commission's goal is to resolve the issue for radioactive materials - providing for public health and safety and protecting the environment while using the nation's resources in an optimum fashion. As I have mentioned in my previous letters, we take our mandate to protect the health and safety of the public very seriously. As a result, the issues raised by Ms. Haffner are carefully considered.

Sincerely,



James M. Taylor  
Acting Executive Director  
for Operations



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