

OPENING STATEMENT OF THE HON. GERRY E. STUDDS

Chairman, Subcommittee on Oceanography

Radioactive Waste Disposal in the Oceans

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Today's hearing will focus on the environmental implications of the ocean disposal of radioactive waste. The possibility that high level wastes will be emplaced in the deep seabed is currently under study by the Department of Energy. Low level wastes have, in years past, been routinely discarded in U.S. waters, and are currently being dumped under regulated conditions by several nations overseas.

We hope today to discuss the extent to which we understand the effects of radioactive waste dumping on the marine environment, and to identify areas in which we do not know enough to make a reasoned judgement about the wisdom of allowing ocean disposal of such waste in future years.

We are concerned today with two distinct types of radioactive wastes--high level (including, for example, the long-lived and extremely toxic elements found in spent fuel rods from nuclear power plants) and low level (less radioactive materials such as contaminated hospital and laboratory equipment). The most likely disposal techniques for the two differ greatly, as we shall hear shortly.

Beginning immediately after World War II until the late sixties, the United States, as a matter of public policy, routinely permitted the ocean dumping of low level wastes. These materials were placed in 55-gallon steel drums lined with concrete and towed to vaguely determined sites, from Massachusetts Bay to the Farallon Islands off San Francisco. Unfortunately, since they were considered to be useless garbage, their precise location and contents were not recorded. In recent years, the Environmental Protection Agency has been able to locate only a minute percentage of these drums, some of which were damaged and leaking. We hope today to be able to discuss at length the findings of both EPA and others to date, the plans for future monitoring of these sites, and the likelihood of future ocean dumping of low level wastes. Several European nations incidentally, are currently dumping low level wastes at one site in the northeast Atlantic, and the Japanese are planning to establish a site in the Pacific.

What we plan to do with our high level wastes in the future is an even more important issue because such materials can cause irreversible biological damage and, in some cases, must be isolated for hundreds of thousands of years. The current Administration has funded considerable research into land-based mined repositories--such as salt domes or granite--for high level wastes. However, the Department of

Energy is also looking into other potential disposal mediums-- of which sub-seabed disposal is one. This yet to be developed technology would require the implantation of high level wastes, probably contained in steel cannisters, in the clays of remote, stable areas of the deep seabed. It is evident that preventing the migration of radionuclides into the food chain is one of the keys to toxic waste isolation, and in this case the retentive nature of the clays would have to act as the primary barrier. Whether deepsea organisms would either affect or be affected by nuclide migration is an additional area for research.

It is important to remember that the marine environment outside U.S. waters is also of vital significance. The knowledge gained by our scientists about radioactive waste disposal can be extremely helpful in our negotiations with those nations which may be more eager than we to consider large scale ocean disposal operations. It is quite possible, for example, that high level radioactive waste disposal will be undertaken by the Japanese or by several European nations, provided they are successful in interpreting the London Dumping Convention in a manner which will allow them to do so.

Domestically, the Marine Protection, Research and Sanctuaries Act of 1972 (Ocean Dumping Act) prohibits the disposal in the oceans of high level wastes. Thus, an amendment to this law would be necessary before any high level waste disposal could occur.

Now, we will hear from our first witness, Mr. Leslie H. Brown of the Department of State.