



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

JAN 15 1988

RECEIVED JAN 18 1988

The Honorable Bill Bradley
United States Senator
P.O. Box 1720
Union, New Jersey 07083

Dear Senator Bradley:

As requested by your November 10, 1987 letter, we have reviewed "A Proposal for the Acquisition of Radioprotective Potassium Iodide," submitted by Alan Morris.

The position of the Nuclear Regulatory Commission regarding predistribution of potassium iodide to the general public living around power reactors is found in a Federal Register Notice dated July 24, 1985 developed by FEMA with NRC participation. A copy of this notice was included with Mr. Morris' proposal. The notice states that predistribution or stockpiling of potassium iodide by the general public should not be required.

The policy statement elaborates:

While valid arguments may be made for the use of KI, the preponderance of information indicates that a nationwide requirement for the predistribution or stockpiling for use by the general public would not be worthwhile. This is based on the ability to evacuate the general population and the cost effectiveness of a nationwide program which has been analyzed by the NRC and DOE National Laboratories (NUREG/CR-1433). While the use of KI can clearly provide additional protection in certain circumstances, the assessment of the effectiveness of KI and other protective actions and their implementation problems indicates that the decision to use KI (and/or other protective actions) should be made by the states and, if appropriate, local authorities on a site specific basis.

The Federal Register Notice noted that the Food and Drug Administration had found potassium iodide use as a thyroid blocker for radioiodine to be safe and efficacious. However, it also stressed that use of potassium iodide protects only the thyroid gland and that other protective measures such as sheltering and evacuation may be necessary to protect against uptake of other radionuclides and external radiation. To summarize, it was concluded that evacuation and sheltering are sufficient measures to protect the general public during accidents at power reactors and that these measures provide more effective overall protection than use of potassium iodide.


Several of Mr. Morris' assertions require comment. The NRC has not concluded that a major nuclear power accident is highly likely to occur in the United States. Calculations performed by the NRC staff, and others, have resulted in widely ranging probabilities of such an event, characterized by large uncertainties. The NRC intends to continue to pursue a regulatory program that

has as its objective providing reasonable assurance, while giving due consideration to the uncertainties involved, that a severe core damage accident will not occur at a U.S. nuclear power plant. The assertion that the use of potassium iodide in Chernobyl and Europe saved hundreds of thousands from thyroid injury is at best an assumption. No documented evidence exists to support this conclusion.

The NRC reconsidered the issue of stockpiling potassium iodide as a result of the Chernobyl experience in Draft NUREG-1251 "Implications of the Accident at Chernobyl for Safety Regulation of Commercial Nuclear Power Plants in the United States." The staff has concluded that there are no new reasons to reconsider the agency's position as stated above. In fact, current analysis indicates that iodine releases in a postulated accident would be lower than they were predicted to be at the time the agency position was established.

We hope this letter is responsive to your request.

Sincerely,



Victor Stello, Jr.
Executive Director for Operations

Enclosure:
Draft NUREG-1251