CONTINUED CARE FUND TESTIMONY

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The Revised Radiation Protection Act, Laws of 1977 (Attachment No. 1) extends the authority of the Environmental Improvement Board by establishing continued care fund deposit requirements and other continued care requirements.

19-9-5.1 of the Act states:

> A. In the adoption of regulations governing continued care fund requirements, the board shall consider the desirability of prorated payments by the licensee in relation to the expected life of the licensed operation. . . .
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> C. Until the nuclear regulatory commission adopts regulations governing continued care activities, continued care fund deposits required from a uranium mill license holder shall be ten cents ($.10) per pound of $U_3O_8$ in uranium concentrate (yellow cake) produced from such mill, unless the board determines that a lesser amount is appropriate and the requirements of a mill license holder to make deposits to the continued care fund will terminate for each mill after the cumulative continued care fund deposit for that mill reaches one million dollars ($1,000,000).

12-9-5.2. CONTINUED CARE FUND CREATED—APPROPRIATION—APPROVAL—REGULATION of the Act states:

> A. The 'radiation protection continued care fund' is created in the state treasury. Cash balances in the fund shall be invested by the state treasurer as other state funds under his jurisdiction are invested. Income earned on the investment shall be credited to the continued care

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fund for use as provided in the Radiation Protection Act.

B. Money in the continued care fund is appropriated to the agency for use in remedying and preventing situations which may be harmful to the health, safety, welfare or property of the people, involving abandoned wastes or inoperative facilities which are or were operated by depositors to the continued care fund.

C. Emergency expenditures up to the amount of one hundred thousand dollars ($100,000) for any single emergency incident may be made from the continued care fund by the director subject to approval of the chairman of the board. Expenditures involving more than one hundred thousand dollars ($100,000) shall be made only after prior approval of the state board of finance.

D. Subject to the provisions of this section, the board shall adopt regulations governing the administration of the continued care fund.

This Act provides for establishing a fund that will allow the state to address both foreseeable and unforeseeable expenses associated with radioactive waste not covered by other mechanisms — licensing fees or bonds. Because uranium mill tailings piles will remain radioactive for thousands of years and also contain non-radioactive metals such as selenium as well as other chemical contaminants, continued care of such piles is necessary to assure adequate protection of public health and safety.

Monies for continued care funds in the future may be used to meet expenses for:

1. repair of fencing;

2. monitoring;

3. emergency repairs such as damage due to natural disaster, floods, etc.; and

4. other anticipated and unanticipated problems.

Precise cost data for such future activities is not available.

The Energy Research and Development Administration (ERDA) has contracted with Ford, Bacon, and Davis Utah, Inc., to provide architect-engineering services in the assessment of the problems resulting from large quantities of radioactive uranium mill tailings at sites of inactive mills in western states, including New Mexico. In a published assessment of the inactive uranium mill tailings at the Shiprock, New Mexico site, the contractors noted, "To date, the studies of radiation levels on and in the vicinity of these sites have been limited in scope. The data available were insufficient to permit assessment of risk to people with any degree of confidence in the conclusions reached. In addition, information on practicable measures to reduce radiation exposures and estimates of their projected costs are completely lacking. The purpose of this study is to develop the necessary information to provide a basis for decision-making for appropriate remedial actions for each of these sites."

Cost estimates generated by Ford, Bacon, and Davis at the Shiprock tailings site, for 11 options, ranged from $540,000 to $12,500,000. A summary of the Remedial Action Options, costs and effects, is in Attachment No. 2. Cost estimates generated by the same contractor at the Vitro uranium mill tailings pile in Salt Lake City ranged from $550,000 to $30,300,000 as indicated in Attachment No. 3. Since costs involved in uranium mill tailings pile remedial action can be very expensive, it is important that the State collect as much money as

allowed by the provisions of the Act to insure a fund that may be adequate to address the poorly-understood costs that will be associated with future remedial action on the much larger uranium mill tailings piles being generated today. Otherwise the burden will be on the taxpayer.

So far as we are aware, no one knows accurately what the future costs of maintenance of the piles being generated today will be. We do know from the Ford, Bacon, and Davis studies that remedial action on the inactive piles presently being assessed is very expensive. There is not even agreement among government authorities that costs have been adequately assessed. An August 24, 1977, letter to the ERDA assistant administrator for environment and safety from EPA's deputy assistant administrator for radiation programs regarding the inactive uranium mill tailings engineering studies states "Our principal concerns arise from the fact that for many parameters there has been an inadequate assessment of the potential and existing problems associated with these sites." Later, the letter states, "I do not believe it appropriate at this time to leave out of the costing process such things as decontamination of mill site structures, monitoring programs, or cleanup of all off-site tailings locations." Attachment No. 4 contains a copy of this letter.

The Western Interstate Nuclear Board (WINB) recently estimated long-term maintenance and surveillance costs of inactive stabilized uranium mill tailings $55,000 per year in 1976 dollars. This should be regarded only as an anticipated minimum cost. The report does not

indicate how these costs were determined (See Attachment No. 5). Furthermore, the report does not address inflation. Winston Barrington, a research associate for Resources for the Future, a non-profit corporation studying resources and environmental problems, is presently working under a National Science Foundation grant on a paper titled "Continued Care of Uranium Mill Sites: Some Economic Considerations." Although this paper is presently in draft form, the author, referring to the 10 cents per pound of yellow cake allowed in the New Mexico Radiation Protection Act, states: "In this paper it will be argued that even the maximum amount is not likely to generate an income stream which would support an adequate maintenance program. This is a parable of the futility of writing dollar amounts into legislation in the presence of persistent inflation."

Ford, Bacon, and Davis Utah notified our agency in a January 1978 letter that this cost data for inactive piles are in 1977 dollars, with no provision included for inflationary pressure on the annual maintenance costs.

The State of Colorado sent the Environmental Improvement Agency a letter dated January 6, 1978, in which they transmitted EPDA Phase II cost data for Colorado piles. These costs range from $140,000 to $32,200,000 (See Attachment No. 6). In addition, the Grand Junction Remedial Action Program report for a two-month period ending September 30, 1977, indicates $91,005 spent (See Attachment No. 7). Thus the cost of remedial action with regard to tailings piles may be considerable.

Therefore, after considering the large amounts of money involved

in remedial action on uranium mill tailings piles, the lack of adequate data on probable cost of taking care of active piles, and the lack of attention to inflationary pressure on annual maintenance costs, the Radiation Protection Section strongly urges adoption at this time of the proposed regulation of $.10 per pound of $U_3O_8$. We believe that no lesser figure is likely to be adequate.