

Rachel's Environment & Health News

#69 - Landfilling Low-Level Radioactive Waste Is A Problem For All States

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The problem of "low level" radioactive waste is not a low level problem. Over the next few decades 500 million Curies of "low level" radioactive material will have to be managed, according to a new book by physicist Marvin Resnikoff. "This is a staggering amount of radioactivity, considering that leakage of even a billionth of a Curie in a lab or hospital is cause for alarm," says Dr. Resnikoff.

There are basically two different "low level" radioactive waste streams. One comes from universities, hospitals, and research laboratories, the other from nuclear power plants. Dr. Resnikoff says the nuclear industry has fostered the misconception that nuclear power is just one source among many. In reality, all research and medical institutions, taken together, produce only 0.008% of the radioactivity in the nation's low level radioactive waste; nuclear power plants produce the remainder (99.992%).

Low level radioactive waste is poorly defined under federal law. The law defines "high level waste" as the radioactive materials produced by the fuel in nuclear power plants; low level waste is just about anything that does not fit the definition of high level waste. Unfortunately, this means many "low level" wastes are highly radioactive and will remain so for many thousands of years. Low level does not mean low hazard.

The traditional method for "disposing" of low level waste is to dump it into landfills. The U.S. has operated six lowlevel radioactive waste landfills over the past four decades; three of these (at Maxey Flats, KY; West Valley, NY; and Sheffield, IL) are now closed because of severe problems of leakage and environmental contamination. Of the three remaining landfills, the one at Barnwell, SC, has radioactivity migrating from it; the problem at Barnwell is expected to get worse as time passes. The low-level dump at Richland, WA, may be the source of radioactivity detected in the Columbia River (a problem the Department of Energy has concealed since 1975). The dump at Beatty, NV, so far seems to have avoided leakage problems--but workers there stole radioactively contaminated tools and sold them as flea market items.

The dumps in Washington, Nevada and South Carolina are currently taking lowlevel waste from the entire country. Recognizing the unfairness of this situation, Congress passed a law requiring all states to form regional "compacts" to provide low level waste management on a regional basis. State governments are scurrying now to create 10 to 12 new regional landfills for radioactive waste.

The new landfills will not work any better than the old ones because as the U.S. Environmental Protection Agency has said maNY TIMES, all landfills will eventually leak. (See HWN #37.)

Dr. Resnikoff's new book, LIVING WITHOUT LANDFILLS, analyzes the nation's "low level" radioactive waste problem and recommends solutions:

The landfilling of radioactive waste must be stopped. Since 99.992% of the nation's radioactive wastes are already contained at 72 nuclear power reactor sites, the wastes should stay there until better solutions can be found. The tiny (0.008%) amount of waste generated by research institutions should be transported to reactor sites for storage.

With no solution to the waste problem in sight, continued generation of radioactive waste is irresponsible and must be minimized. Nuclear reactors should be phased out, with monies allocated for retraining of dislocated nuclear workers.

"The bottom line of our waste management plan is eternal vigilance," says Dr. Resnikoff. "We can no longer produce waste, place it in the ground, and hope the earth stands still. Waste will have to remain in sight and in mind. As waste containers and storage vaults degrade, future generations will need to repair and replace them. Waste must be stored in ways accessible to future

generations."

Dr. Resnikoff's book recommends other steps that the nation could take to minimize the problem of radioactive waste. Dr. Resnikoff and his colleagues at the Radioactive Waste Campaign are citizen activists doing the government's work for it, pointing the way toward safe, sane solutions while the political establishment offers us dangerous, expensive and senseless non-solutions.

If you want to become involved in the low-level radioactive problem in your state, jump in. The second National Low Level Radioactive Waste Conference is being planned now. For further information, contact Diane D'Arrigo at the Nuclear Information and Resource Service (NIRS), 1616 P St., NW, Washington, DC 20036; phone (202) 328-0002.

Marvin Resnikoff's excellent book, LIVING WITHOUT LANDFILLS is available for \$11 from the Radioactive Waste Campaign, 625 Broadway, 2nd floor, New York, NY 10012; phone (212) 473-7390.

--Peter Montague

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STATE REGULATIONS TO PROTECT GROUNDWATER ARE NOT CONSISTENT

Water can be divided into two types--groundwater and surface water. Surface water is the kind you can see--brooks, streams, rivers and lakes. Groundwater is a large underground body of water (on average, 30 feet below the surface of the earth).

Half of all Americans take their daily water supply from groundwater. Unfortunately, groundwater is more subject to contamination than surface water. Many biological processes operate in surface water, destroying contaminants. However, groundwater is different. Groundwater resides in a cool, dark region where few, if any, biological processes are active. Once groundwater is contaminated, it is difficult or impossible to clean up.

"There is considerable uncertainty about the extent to which groundwater is being protected," says a new report from the General Accounting Office: GROUNDWATER QUALITY: STATE ACTIVITIES TO GUARD AGAINST CONTAMINENTS. The 57 U.S. states and territories lack "uniform and consistent" groundwater quality protection policies and regulations. Twenty-six states have numeric standards to protect groundwater (an example: one state or another may allow 0.01 ppb of trichloroethylene); 38 states have narrative standards generally prohibiting the discharge of contaminants that might threaten groundwater; 23 states have both kinds of standards; 16 states (30%) have neither kind of standard. For a free copy of report GAO/PEMD-88-5, write GAO, P.O. Box 6015, Gaithersburg, MD 20877; phone (202) 275- 6241.

--Peter Montague

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Descriptor terms: groundwater; regulations; surface water; water pollution; drinking water; regulations; water quality; environmental policy institute; gao; epa; landfilling; llw; radiation; radioactive waste; marvin resnikoff; leaks; leachate; electricity; hlw; ny; ky; il; maxey flats, west valley, ny; sheffield, il; sc; doe; nv; beatty, nv; wa; sc; epa; nuclear power;