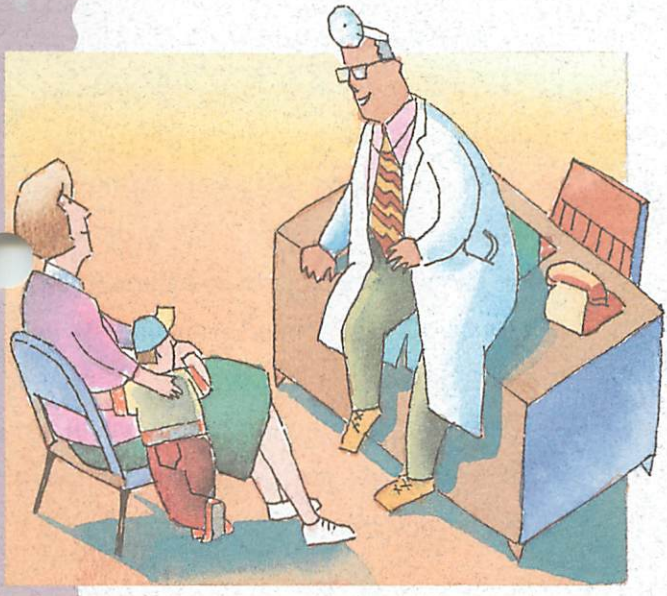
Low-Level Waste:



What should we know about it?

What Does Low-level Waste Have To Do With Me?

If you brewed this morning's coffee in a coffee maker...switched on the radio...used a cosmetic...took a prescription drug...enjoyed an ice cream cone...or drove to work on radial tires...you've already benefitted from radioactive materials today.

Every day—though few of us realize it—radioactive materials make our lives safer, healthier, more comfortable and convenient.

While radioactive materials improve our lives, they also leave behind waste—low-level radioactive waste.

What is low-level waste, anyway?

If you saw a pile of low-level waste, you'd be surprised at how familiar it looks: plastic gloves and lab coats, machine parts and tools, test tubes, filters, and other items that were exposed to even a small amount of radioactivity.

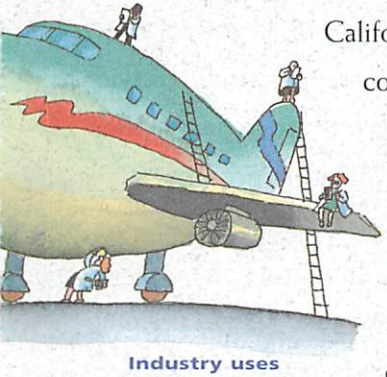
Why is it called low-level waste? Because it contains comparatively low levels of radioactivity. It never includes waste from Department of Defense plants or used fuel from nuclear power plants, which are both highly radioactive.

Every hour of every day, low-level waste loses some of its radioactivity. Almost all low-

level waste reaches normal levels within weeks, months or years. A small percentage stays radioactive for as long as 500 years. While low-level waste remains radioactive—whether it's for days or years—it must be handled with special precautions.

Where Does Low-level Waste Come From?

It's produced by hospitals in Georgia... power plants in New York...universities in California...and pharmaceutical companies in New Jersey. By more than 12,000 federally licensed users of radioactive materials across the country—probably in your community.



Industry uses radioactive materials in hundreds of ways—like making sure aircraft are safe to fly.

Why do they use radioactive materials? It's simple. In almost every case, non-radioactive materials can't do the job as well—if at all.

Nuclear Power Plants. Nuclear energy gives America about 20 percent of its electricity—without contributing to air pollution or urban smog. (Only coal generates more electricity.)

We have more than 30 years' experience in designing and building disposal facilities for low-level waste.

Nuclear power plant waste consists mainly of everyday items—cloth and paper wipes, plastic shoe covers, filters, tools and resins—that have come in contact with small radioactive particles, often during daily operations or maintenance.

Hospitals and clinics. Nuclear medicine helps doctors diagnose and treat millions of Americans every year. By giving the patient a radioactive drug called a tracer, the doctor can scan the path of the drug to see if the heart, kidneys or other organs are working properly. Radioactive drugs also can cure some cancers and other diseases.

Industry and research. There's almost no limit to the ways industry and universities use radioactive materials: developing new prescription drugs; researching cures for cancer, diabetes, and other diseases; producing hardier, better-yielding crops; as measuring devices, and many others.

Can't They Produce Less Waste?

They already are.

Today, users of radioactive materials

produce less than half the waste they did in 1980. Nuclear power plants have reduced their waste by more than 70 percent—even though there are more plants now.

How have they done it?

With careful management, so as few items as possible come in contact with radioactivity. And with special techniques—like compaction—that can reduce the volume of low-level waste by 90 percent or more.

How Do We Dispose Of Waste Safely?

Here in the United States, we have more than 30 years' experience in designing, building and maintaining low-level waste disposal facilities.

We've learned to build them safely, to protect the public and the environment from any exposure to the waste.

Before a disposal facility can operate, it must be licensed by the state, which applies strict federal requirements. The location must be geologically stable. Most important, the waste must not come into contact with water. If a site has too much rainfall, or the water table is too high, it will be rejected.

Once a site is approved, one of several designs will be chosen for the facility. They all have one thing in common: Every disposal facility—both today's and tomorrow's—uses a series of barriers to keep the waste safely away from the environment.

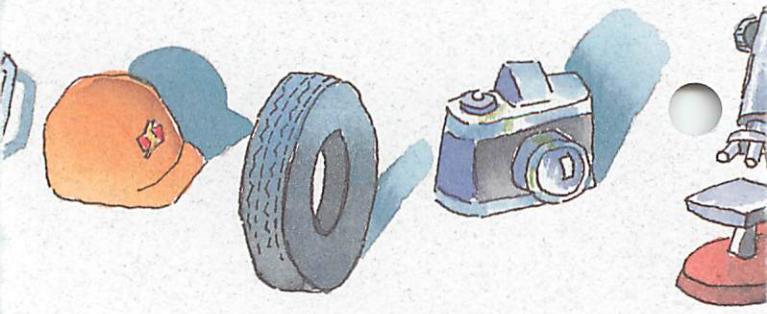
Even after the waste is in place and the vault is sealed, the job is not finished. The facility must continue to comply with federal and state requirements for isolating the waste until the radioactivity fades to natural levels. The state will monitor and maintain the vault for 100 years after it is closed.

All costs of the site—including the long-term monitoring—are paid by the producers of the low-level waste.

Who Makes Sure We're Protected?

At least five federal government agencies—and every state—set strict standards for managing, shipping and disposing of low-level waste. These include:

Radioactive materials are used to make things we use every day.



- U.S. Nuclear Regulatory Commission
- U.S. Environmental Protection Agency
- U.S. Department of Transportation
- U.S. Department of Energy
- U.S. Geological Survey
- State governments, which license sites according to federal standards and monitor their operation continuously.

What about tomorrow's waste?

Unfortunately, waste is something we can't wish away. But we do have the technology to dispose of it—safely and permanently.

A number of states are trying to develop new disposal facilities. If they don't, the nation's hospitals, clinics, laboratories, universities, power plants and industries face a serious problem: Where will they dispose of their low-level waste?

They will have only two choices: store the waste indefinitely on their own premises—which few are able to do—or stop the activities that create the waste, including biomedical research and nuclear medicine treatments.

What Does This Mean To Me And My Family?

Everyone shares in the benefits of radioactive materials. That's why it's everyone's responsibility to help dispose of the waste—not leave it for our children.

We have other brochures like this one on other nuclear energy topics. Call or write us if you're interested.

- SAFETY IN MOTION: Transportation of radioactive materials
- NUCLEAR ENERGY: How nuclear power plants work
- NUCLEAR ENERGY: How do we keep nuclear power plants safe?
- RADIATION: We know you have questions. Here are some answers.
- NUCLEAR ENERGY: What has it done for us lately?
- HIGH-LEVEL WASTE: What will we do with used nuclear fuel?

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