

Waste Streams

Activated Equipment (or Shielding): Tools, instruments, equipment, and lead shielding made radioactive by irradiation from a nuclear reactor or spent fuel pool.

Air Filter Media, Cartridges: Air filters or the media used within air filters, such as charcoal or cellulose fibers.

Animal Carcasses: Radioactivity contaminated animal carcasses or body parts usually resulting from animal research. Animal carcasses present a special storage problem in that they often require freezing to inhibit biological degradation.

Aqueous Liquids: Wastes that are dissolved in water. Liquid waste must be solidified before shipment to a disposal facility. Liquids cannot be accepted for land disposal.

Ash: Incinerating LLRW results in substantial volume reduction but most of the radioactivity is still present in the ash. Ash is often solidified with cement, asphalt, or other material prior to disposal or storage.

Biological Waste: Other biological waste may include animal bedding and excreta and laboratory culture media.

Contaminated Hazardous Material: Wastes that have hazardous constituents or properties as designated by U.S. Environmental Protection Agency or MDEQ regulations as well as contamination with radionuclides. This type of waste is also referred to as "mixed waste."

Dry Active Waste (DAW): Solid waste that commonly consists of protective clothing, glassware, paper, cloth, and plastics that may have been contaminated with radioactive material. Some DAW can be compacted or incinerated.

Evaporator Concentrates: Evaporation of contaminated water is a common treatment method at nuclear power plants. The concentrated residue produced during the process is solidified before disposal.

Ion Exchange Resins: Organic polymer materials used to remove radioactive contaminants from circulating cooling water and used for other water treatment systems within nuclear power plants.

Liquid Filter Media, Cartridges: Filters or filter media used to remove radionuclides from water.

Medical Generators: A commercially available device used to create a short-lived radionuclide (to be used in a medical application) from a parent radionuclide. The most widely used medical generator is used to produce technetium-99m from a molybdenum source. The device is usually returned to the manufacturer at the end of its useful life.

Oils: Lubricating or machine oil that has become contaminated with radioactive materials.

Organic Liquids: Chemical compounds such as alcohols or solvents such as benzene, xylene, and toluene that have been contaminated with radioactive materials.

Rubble, Sand, and Soil: Concrete, gravel, soil, or other building rubble contaminated with radioactive materials. These wastes are usually generated in the process of decommissioning a licensed facility.

Sealed Sources: A radioactive source sealed in a container to prevent contact with, or dispersion of, the radioactive material during its use. Sealed sources are used in a wide variety of medical, research, industrial, and construction applications.

Sludge: Produced when filtering contaminants, sludges include powdered ion-exchange resins, diatomaceous earth, suspended solids, silica, and metal oxides.