

What is Low-Level Radioactive Waste?

Radioactive waste is divided into five categories:

- high-level radioactive waste;
- uranium milling residues;
- radioactive waste with greater than specified quantities of elements heavier than uranium;
- naturally occurring radioactive materials, or radioactive materials produced in an accelerator; and
- low-level radioactive waste.

Federal law defines Low-level radioactive waste by what it is not. Low-level radioactive waste is not high-level radioactive waste, which is spent nuclear fuel or highly radioactive waste produced if spent fuel is reprocessed.

Low-level radioactive waste is not uranium mill residues, or tailings that remain after uranium has been removed from the ore that was mined from the earth.

Low-level radioactive waste is not radioactive waste that contains more than specified concentrations of elements heavier than uranium, which are known as transuranics.

Nor is low-level radioactive waste naturally occurring radioactive material or radioactive material produced in an accelerator.

Low-level radioactive waste is defined as any radioactive waste that does not belong in any of the above categories. As a result, low-level waste is a very

broad category containing many different types of waste and a wide range of radioactive content.

Classes of Low-Level Radioactive Waste

There are four classes of low-level radioactive waste based on the concentration of radioactive material in the waste:

- Class A low-level radioactive waste contains the lowest radioactive concentration and constitutes the vast bulk of waste.
- Class B contains the next lowest radioactive concentration.
- Class C waste has the highest radioactive concentration allowed to be disposed of in a low-level waste disposal facility.
- Greater than Class C Waste is waste not meeting the criteria for the first three classes.

Some Examples of Low-Level Radioactive Waste

Low-level radioactive waste is generated at facilities such as nuclear power plants, hospitals, and research institutions. It includes radioactive materials used in various processes as well as supplies and equipment that have been contaminated with radioactive materials. Low-level waste can include:

- ion exchange resins and filter materials used to clean water at a nuclear power plant;
- contaminated hand tools, components, piping, and other equipment from nuclear power plants and other industries;
- research equipment from laboratories where radioactive materials are used;
- shoe covers, lab coats, cleaning cloths, paper towels and other supplies used in an area where radioactive material is present;

- containers, cloth, paper, fluids, and equipment which came in contact with radioactive materials used in hospitals to diagnose or treat disease;