



# Glossary of terms used in the book

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*The definitions given in this glossary refer to the use of terms in this book and are not necessarily valid in other contexts.*

- activity** Disintegration of an amount of a radionuclide in a particular energy state at a given time per time interval at a given time.
- antineoplastic** Inhibiting or preventing the development of neoplasms.
- antisepsis** Prevention of infection by inhibiting the growth of infectious agents.
- calorific value** *See* heating value.
- capacity** The quantity of solid waste that can be processed in a given time under certain specified conditions, usually expressed in terms of mass per 24 hours.
- characterization** The determination of the physical and chemical and—for radioactive waste—radiological properties of waste, or of other features, to establish the need for further adjustment, treatment, or conditioning, or suitability for further handling, processing, storage, or disposal.
- clearance levels** (in the context of radioactive waste management) A set of values established by the regulatory authority and expressed in terms of activity concentrations and/or total activities, at or below which sources of radiation can be released from regulatory control.
- conditioning** Operations that produce a package suitable for handling, transportation, storage, and/or disposal.
- container** Vessel in which waste is placed for handling, transportation, storage, and/or eventual disposal. The waste container is a component of the waste package.
- cytostatic** Causing suppression of growth and multiplication of cells.
- cytotoxic** Possessing a specific destructive action on certain cells; used in particular in referring to the lysis (disintegration or dissolution) of cells brought about by immune phenomena and to antineoplastic drugs that selectively kill dividing cells.
- decontamination** Reduction of microbiological contamination to a safe level.
- disinfectant** Chemical agent that is able to reduce the viability of microorganisms.

<b>disinfection</b>	Treatment aimed at reducing the number of vegetative microorganisms to safe or relatively safe levels. (See section 14.3.5 for more comprehensive information.)
<b>disposal</b>	<p>Intentional burial, deposit, discharge, dumping, placing, or release of any waste material into or on any air, land, or water.</p> <p>In the context of radioactive waste management, disposal means the emplacement of waste in an approved, specified facility (e.g. near surface or geological repository) or the approved direct discharge of effluents into the environment. Disposal is undertaken without the intention of retrieval.</p>
<b>exempt waste</b> (in the context of radioactive waste management)	Waste that is released from nuclear regulatory control in accordance with clearance levels because the associated radiological hazards are negligible. The designation should be used in terms of activity concentration and/or total activity and may include a specification of the type, chemical/physical form, mass, or volume of waste, and its potential use.
<b>flue gas (or exhaust gas)</b>	Gases and suspended particles emitted from an industrial stack or chimney.
<b>furnace</b>	The chamber of the incinerator into which the refuse is charged for subsequent ignition and burning.
<b>genotoxic</b>	Descriptive of a substance that is capable of interacting directly with genetic material, causing DNA damage that can be assayed. The term may refer to carcinogenic, mutagenic, or teratogenic substances.
<b>groundwater</b>	The water contained in porous underground strata as a result of infiltration from the surface.
<b>handling</b>	The functions associated with the movement of solid waste materials, excluding storage, processing, and ultimate disposal.
<b>hazard</b>	<p>Intrinsic potential property or ability (e.g. of any agent, equipment, material, or process) to cause harm.</p> <p><i>Note:</i> Harm is an injury or damage to health of people and/or to the environment.</p>
<b>heating value (or calorific value)</b>	The quantity of heat that is produced when the unit mass of a material undergoes complete combustion under certain specified conditions. For solids, it is expressed in terms of calories or joules per kilogram (kcal/kg, kJ/kg, MJ/kg, etc.). The <i>high heating value</i> includes the specific enthalpy of vaporization, whereas the <i>low heating value</i> omits it.
<b>incineration</b>	The controlled burning of solid, liquid, or gaseous combustible wastes to produce gases and residues containing little or no combustible material.
<b>leachate</b>	Liquid from a landfill containing substances that were present in the waste, either as liquids or as solids, and were dissolved by the water passing through the waste.
<b>microorganism</b>	Any microbiological entity, cellular or non-cellular, capable of replication or of transferring genetic material.

<b>monitoring</b>	The measurement of a concentration or other parameter (radiation or radionuclide concentration in the context of radioactive waste management) for purposes of assessment or control of environmental quality or exposure and the interpretation of such measurements. Monitoring can be continuous or non-continuous.
<b>municipal waste</b>	General waste for collection by municipalities, generated mainly by households, commercial activities, and street-sweeping.
<b>prion</b>	A poorly characterized slow infectious agent. Prions are believed to be the cause of a number of neurodegenerative diseases, e.g. Creutzfeldt–Jakob disease.
<b>pyrolysis</b>	The decomposition of organic material by heat in the absence, or with a limited supply, of oxygen.
<b>radioactive waste</b>	Material that contains, or is contaminated with, radionuclides at concentrations or activities greater than clearance levels and for which no use is foreseen.
<b>radio-immunoassay</b>	Assay or test involving radionuclides and using an antibody as the receptor.
<b>radionuclide</b>	A nuclide (i.e. an atom of specified atomic number and mass number) that exhibits properties of spontaneous disintegration, liberating energy, generally resulting in the formation of new nuclides, and accompanied by the emission of one or more types of radiation, such as $\alpha$ - and $\beta$ -particles and $\gamma$ -rays.
<b>radiotherapy</b>	The use of ionizing radiation to treat disease.
<b>recycling</b>	A term embracing the recovery and reuse of scrap or waste material for manufacturing or other purposes.
<b>repository</b>	A nuclear facility where radioactive waste is emplaced for disposal. Future retrieval of waste from the repository is not intended.
<b>residence time</b>	The time that elapses between the entry of a substance into a furnace and the exit of burn-out residue from the furnace.
<b>residue</b>	The material remaining after combustion of wastes such as ash or slag. Also refers to materials extracted from a liquid or gas stream.
<b>risk</b>	Probability that a hazard will cause harm, and the severity of that harm.
<b>sanitary landfilling</b>	An engineered method of disposing of solid waste on land in a manner that protects the environment, e.g. by spreading the waste in thin layers, compacting it to the smallest practical volume, and covering it with soil by the end of each working day, constructing barriers to infiltration, evacuating the gases produced.
<b>scavenging</b>	The manual sorting of solid waste at landfills and removal of usable material.
<b>sealed source</b>	Radioactive material that is permanently encapsulated or closely bounded in a solid form to prevent its release under the most severe conditions likely to be encountered in normal use and handling.

<b>segregation</b>	The systematic separation of solid waste into designated categories.
<b>sewage</b>	A community's water supply after it has been fouled by various uses. Its source may be a combination of the liquid or water-carried wastes from domestic, municipal, and industrial premises, together with such groundwater, surface water, and storm water as may be present.
<b>sewerage</b>	A system for the collection and transport of sewage, including conduits, pipes, and pumping stations.
<b>SI</b>	Abbreviation for the <i>Système international d'Unités</i> , a system of units of measurement developed to permit international harmonization and acceptability.
<b>sludge</b>	The accumulated solids that separate from liquids such as water or wastewater during processing, or deposits on the bottom of streams or other bodies of water.
<b>sterilization</b>	A reduction in microorganisms of more than $10^6$ (more than 99.9999% of the microorganisms are killed), achieved by physical, chemical, or mechanical methods or by irradiation.
<b>storage</b>	The placement of waste in a suitable location or facility where isolation, environmental and health protection, and human control (e.g. monitoring for radioactivity, limitation of access) are provided. This is done with the intention that the waste will be subsequently retrieved for treatment and conditioning and/or disposal (or clearance of radioactive waste).
<b>teletherapy</b>	Therapeutic irradiation in which the source of irradiation is located at a distance from the patient's body.
<b>treatment</b>	Any method, technique or process for altering the biological, chemical, or physical characteristics of waste to reduce the hazards it presents and facilitate, or reduce the costs of, disposal. The basic treatment objectives include volume reduction, disinfection, neutralization, or other change of composition to reduce hazards, including removal of radionuclides from radioactive waste.
<b>waste form</b>	Waste in its solid physical and chemical form after treatment and/or conditioning before packaging; the waste form is a component of the waste package.
<b>waste generator</b>	Any person, organization or facility engaged in activities that generate waste.
<b>waste inventory</b>	In the context of radioactive waste management, a detailed, itemized record maintained by the operator or regulatory authority in accordance with established regulations; it may contain data such as physical quantity, the activity of the waste, and the radionuclide content.
<b>waste management</b>	All the activities, administrative and operational, involved in the handling, treatment, conditioning, storage, and disposal of waste (including transportation).
<b>waste package</b>	The product of waste conditioning, which includes the waste form, waste container(s), and any internal barriers (e.g. absorbing materials or liners), prepared in accordance with requirements for handling, transportation, storage, and/or disposal.

## References

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