

Term	Meaning
Alert	Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant. Any releases expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels.
Alpha Radiation	The least penetrating type of radiation. Alpha radiation can be stopped by a sheet of paper.
Ambient Radiation Levels	Surrounding radiation levels.
Atom	The basic component of all matter; the smallest part of an element that has all the chemical properties of that element. Atoms in turn are made up of protons, neutrons and electrons.
Background Radiation	The radioactivity in the environment including cosmic rays from space and radiation that exists everywhere in the air, in the earth, and in man-made materials that surround us. In the United States most people receive 100 to 250 millirems of background radiation per year.
Beta Particle	A negatively charged particle emitted from an atom during radioactive decay. A beta particle is an electron that has a mass equal to 1/1837 that of a proton. A beta particle can be stopped by an inch of wood or a thin sheet of aluminum.
Beta Radiation	Emitted from a nucleus during fission. Beta radiation can be stopped by an inch of wood or a thin sheet of aluminum.
Boiling Water Reactor	A nuclear reactor in which water is boiled in the reactor vessel; the resulting steam drives a turbine to generate electricity.
Chain Reaction	A self-sustaining series of events occurring when a neutron splits a heavy atom releasing sufficient neutrons to cause many other atoms to split in the same way.

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Control Room	The operation center of a nuclear power plant from which the plant can be monitored and controlled.
Coolant	A fluid, usually water, used to cool a nuclear reactor and transfer heat energy. The water also moderates, or slows down, the fissioning of neutrons.
Criticality	The point at which a nuclear reactor is just capable of sustaining a chain reaction.
Deposition Footprint	The entire area in which radioactive material has deposited on the ground.
Dosimeter	A device, such as a film badge, which can be worn and used to measure the radiation dosage a person receives over a period of time.
Fission	The splitting or breaking apart of a heavy atom into two or more new atoms. When a heavy atom, such as uranium, is split, large amounts of energy and one or more neutrons are released.
Fission Products	The atoms formed when uranium is split in a nuclear reactor. Fission products are usually radioactive.
Gamma Radiation	A form of electromagnetic, high-energy radiation emitted from a nucleus. Gamma rays are essentially the same as X-rays and require heavy shielding, such as lead brick, to stop them.
Geiger Counter	An instrument for detecting and measuring beta and gamma radiation.
General Emergency	Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure

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	levels offsite for more than the immediate site area.
Millirem	A unit of radiation dosage equal to one-thousandth of a rem. An individual member of the public can receive up to 500 millirems per year according to federal standards. This limit does not include radiation received for medical treatment nor does the limit include the 100 to 250 millirems people receive annually from background radiation.
Neutron	An uncharged particle with a mass nearly equal to the mass of a proton. Neutrons are the particles that sustain a chain reaction in a nuclear reactor.
Noble Gases	Gases which do not combine chemically with other materials. The noble gases are helium, neon, argon, krypton, xenon and radon.
Nuclear Power Plant	A facility designed to convert nuclear energy into electricity.
PAD - Protective Action Decision	Decision made by decision-makers after a PAR has been made.
PAR - Protective Action Recommendation	Recommendation made to decision-makers based on Radiological Conditions Assessment.
Pressurized Water Reactor	A reactor in which water, heated by nuclear energy, is kept at high pressure to prevent the water from boiling. Steam is then generated in a secondary loop.
Radiation	Refers to the process of emitting energy in the form of rays or particles which are thrown off by disintegrating atoms; may consist of alpha, beta, or gamma radiation.
Radioactivity	The property possessed by some elements, such as uranium, of spontaneously emitting alpha, beta or gamma rays.

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Radiological Deposition	Radioactive material that has deposited on the ground from a release.
REM	An acronym for Roentgen Equivalent Man, a measure of radiation exposure that indicates the potential impact on human cells.
Shielding	Material, such as lead or concrete, around a nuclear reactor used to prevent the escape of radiation and to protect workers and equipment.
Site Area Emergency	Events are in process or have occurred which involve actual or likely major failures of plant functions needed for protection of the public. Any releases not expected to exceed EPA Protective Action Guideline exposure levels except near site boundary.
Unusual Event	Unusual events are in process or have occurred which indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.