

Glossary of terms

- Acute radiation disorder** An acute illness resulting from a high dose usually exceeding 500mSV to most or all of the body in a short period of time.
- B.5.b** The section of the 2002 NRC Security Order that addresses damage from fire or explosion such as could occur from the impact of a large commercial aircraft.
- Backcheck** A review of the safety of a nuclear power plant—a term peculiar to the Japanese nuclear industry.
- Backfit** The modification of or addition to systems, structures, components, or design of a plant or a facility; or the design approval or manufacturing license for a facility; or the procedures or organization required to design, construct, or operate a plant or a facility.
- Becquerel Bq** The unit of radioactivity in which one nucleus decays per second.
- Condensate storage tank** A tank containing water used for a reactor's cooling systems.
- Condensate water transfer pump** The pump for water from the condensate storage tank.
- Containment vessel** The gas-tight shell around a nuclear reactor.
- Core damage** Damage to the central part of the reactor that contains the fuel and produces heat.
- Defense-in-depth** The practice of having multiple, redundant, and independent layers of safety systems to safeguard the reactor core.
- ECCS** Emergency Core Cooling System
- ERSS** Emergency Response Support System – a system of information sharing between nuclear power plants and government agencies designed to facilitate a coordinated and effective response from the national government.
- FEPC** Federation of Electric Power Companies (Hokkaido Electric Power Co., Hokuriku Electric Power Co., Chubu Electric Power Co., The Chugoku Electric Power Co., The Okinawa Electric Power Co., Kyushu Electric Power Co., Shikoku Electric Power Co., The Kansai Electric Power Co., Tokyo Electric Power Co. and Tohoku Electric Power Co.) – A federation of the ten privately owned electric power utilities created in 1952 to facilitate communication and cooperation between them.
- Filtrate tank** Part of the water injection backup line of the plant, connected by a pump to the water tank that draws from Sakashita dam.
- gal** A unit of acceleration defined as one centimeter per second squared.
- hardened vent** A separate vent pipe designed to withstand higher loads during an accident such as a station blackout, and routed to an elevated point outside the reactor building.
- HPCI** High pressure coolant injection system - the first line of defense in the emergency core cooling system. HPCI is designed to inject substantial quantities of water into the reactor while it is at high pressure so as to prevent the activation of the automatic depressurization, core spray, and low pressure coolant injection systems.
- IAEA** International Atomic Energy Agency - an international organization that seeks to promote the peaceful use of nuclear energy, and to inhibit its use for any military purpose, including nuclear weapons.
- IC** Isolation condenser – a heat exchanger located above containment in a pool of water open to atmosphere. In operation, decay heat boils steam, which is drawn into the heat exchanger and condensed; then it falls back into the reactor.
- INES** International Nuclear and Radiological Event Scale – a seven-level scale for assessing and communicating safety information regarding nuclear and radiological incidents.
- JNES** Japan Nuclear Energy Safety Organization – an incorporated administrative agency established to ensure safety in the use of nuclear energy, which works in conjunction with NISA.
- Kantei** The Prime Minister's Office - The building housing both the Prime Minister's official office and residence. In this report, "Kantei" most often refers to the Prime Minister and the ad hoc group on the 5th floor, which was responsible for the government's response to the accident.
- LOCA** loss of coolant accident – a mode of failure for a nuclear reactor that can result in core damage, unless it is mitigated by ECCS.
- Make-up system** A system used to add water to the reactor coolant system under normal operating conditions.
- M/C** High voltage metal-clad type switchgear - In an electric power system, switchgear is the combination of electrical switches, fuses or circuit breakers used to control, protect and isolate electrical equipment.
- METI** Ministry of Economy, Trade & Industry

MEXT Ministry of Education, Culture, Sports, Science, and Technology.

Millisievert mSv A unit of equivalent radiation dose.

NAIIC Nuclear Accident Independent Investigation Commission

NISA Nuclear and Industrial Safety Agency – a government regulatory agency under METI.

NSC Nuclear Safety Commission of Japan – a government administrative body under the Cabinet Administration Office (CAO) that oversees the regulators and the operators.

PBq PetaBecquerel. 10^{15} Bqs.

Reactor A device in which a fission chain reaction can be initiated, sustained and controlled.

RCIC Reactor core isolation cooling system – RCIC is a feedwater pump meant for emergency use. It is able to inject cooling water into the reactor at high pressure.

SBO Station blackout – a complete loss of alternating current electric power to the station.

SCRAM Safety Control Rod Axe Man – Rapid shutdown of a nuclear reactor where fission is halted by inserting control rods into the core.

Shelter-in-place order An order to take immediate shelter in a location readily accessible by sealing it off from outside contaminants and shutting off all air circulation systems. For many residents this meant their own houses.

SPEEDI System for Prediction of Environmental Emergency Dose Information

SR Safety relief valve – a safety device designed to protect a pressurized vessel or system during an overpressure event.

TEPCO Tokyo Electric Power Company, the operator of the Fukushima Daiichi Nuclear Power Plant

Venting A system designed to vent accumulated hydrogen gas in the reactor buildings.

Yield strength Yield strength is the stress beyond which a specified amount of permanent deformation of a material occurs.

480V bus cross-tie breaker A cross-tie breaker is a connection between electric power systems by means of which each can interchange power with the other.