Master List of Key Words (Revised 6 December 2007)

Notes:

The information in italics is for your reference only, do not include it in the key word list. Key words are capitalized only when used as a proper noun. Elements are alphabetized by element

name, not by symbol.

A

academic guidelines accelerator accelerator, decommissioned accelerator, medical accident analysis accident, handling accident, management accident, nuclear accident, power reactor accident, reactor accident, transport actinides activity-weighted size distributions adaptive response adsorption aerosols agriculture air sampling algae as low as reasonably achievable (ALARA) algorithm alpha particle(s) ²⁴¹Am americium analysis, cost-benefit see costbenefit analysis analysis, risk see risk analysis analysis, statistical annual limit on intake apoptotic, apoptosis aquatic

aquatic organisms atmospheric testing atmospheric radioactivity atomic bomb atomic bomb survivors see survivors, atomic bomb; Hiroshima; Nagasaki attenuation Auger processes autoradiography

B

¹⁰**B**

bacteria beam below regulatory concern see De Minimis regulations beta particle(s) bioaccumulation factor bioassay biodegradation **biokinetics** biological indicator biological effect biological medium biostatistic ²⁰⁶Bi bismuth ²⁰⁷Bi bismuth blood bone implant bone marrow bone surface bones. human see skeleton book reviews see reviews boron brachytherapy bragg curve breast breast feeding bremsstrahlung bystander effect

С

Ca-DTPA see chelation calcium

calibration ²⁵²Cf californium Canada cancer carbon, activated ¹²C carbon ¹⁴C carbon carcinogenesis cathode ray tube cell culture cellular phone Cerenkov cesium ¹³⁴Cs cesium ¹³⁷Cs cesium charcoal canister charcoal filter chelation see Ca-DTPA, Zn-DTPA chemical exposure chemical toxicity chemotherapy Chernobyl children chromosome aberration chronic exposure cigarette clearance clinical target volume, CTV **CN-85** coal see fly ash; power plant, coalburning ⁵⁸Co cobalt ⁶⁰Co cobalt complexation computed tomography computer calculation computer conductivity, radiation-induced conformational radiotherapy, CRT constraint contamination contamination, environmental contamination, external contamination, internal correction factors

corrections see errata cost-benefit analysis see analysis, cost-benefit cosmic radiation countermeasure counting efficiency CR-39 curium curriculum cyberknife cyclotron cytogenetic

D

database de minimis regulations see below regulatory concern decay chain decay products decommissioning decontamination see radioactivity, removal of decorporation deer dental detection limit detector detector, alpha-track detector, bubble detector, fission-track detector, dielectric-track detector, etched-track detector, Fricke detector, gel detector, germanium detector, nuclear-track detector, phoswich detector, radiation detector, scintillation detector, silicon detector, thermoluminescent diagnostic imaging see imaging; mammography diagnostic radiology diet diffusion

discharge limit dismantling, waste, technology, management **DNA** dogs dose dose assessment dose commitment dose equivalent dose equivalent, effective dose equivalent, effective collective dose, absorbed dose, bone dose, collective dose, external dose, internal dose limit dose, low dose, organ dose, patient dose, population dose rate dose, scattered dose, skin dosimeter dosimetry dosimetry, 3D dosimetry, alpha dosimetry, beta dosimetry, calibration dosimetry, chemical dosimetry, error dosimetry, gamma dosimetry, internal dosimetry, external dosimetry, microdosimetry, neutron dosimetry, occupational dosimetry, personnel dosimetry, population dosimetry, solid-state dosimetry, thermoluminescent DPUI **DS86 DTPA** see chelation dwelling

Е

education education, health physics effluent effective dose electrets electromagnetic field see radiation, nonionizing electrons electron storage ring electrostatic field emergency, radiological emergency planning emission, atmospheric see radioactivity, airborne energy transfer energy expenditure environmental assessment environmental impact environmental transport see nutrition pathways; food chain environ, terrestrial epidemiology equilibrium factor equivalent uniform dose, EUD ergonomy ethics see professional ethics ¹⁵²Eu europium excretion, fecal excretion, urinary exhalation rate exposure, acute exposure, chronic exposure, cumulative exposure, external exposure, internal exposure, occupational see nuclear workers and hospital workers exposure, personnel exposure, population exposure, potential exposure, prenatal exposure, radiation exposure, radiofrequency extrapolation

extremities

F

Fading fallout film badge fingers fission fission products fluoroscopy food chain see nutrition pathways; transport, environmental fly ash see coal; power plant, coalburning France fuel nuclear fusion

G

Gammaknife gamma radiation gating gastrointestinal tract generation IV genetic effect, radiation see health effects genomic instability geology gonads graft gross target volume, GTV groundwater guidelines

Η

harmonization
health effect see genetic effects, radiation; Nagasaki; Hiroshima; radiation effects
health impact
hematopoietic system
Hiroshima see atomic bomb survivors; health effects
historical profile
hormesis, radiation
hospital worker hot particle human organ humidity, relative hydrogen hygiene, industrial

Ι

ICP-MS IDEAS imaging see x-ray imaging; magnetic resonance imaging; diagnostic imaging; mammography incident incineration indoor radon induced current industrial hygiene ingestion inhalation injection insects instrumentation instruments intake, radionuclide internal dose internal marging, IM internal target volume, ITV **International Atomic Energy** Agency (IAEA) **International Commission on Non Ionizing Radiation Protection** (ICNIRP) **International Commission on Radiological Protection (ICRP) International Commission on Radiation Units and Measurements(ICRU) International Radiation Protection Association** see abstracts international system of units see units, SI; SI units internet iodine ¹²⁵I iodine ¹²⁹I iodine

¹³¹I iodine
ionization chamber
¹⁹²Ir iridium
iron
isotope

J

K

Kd kidney(s) kinetic krypton

L

laboratory animal labyrinth accelerator lactation lasers lead ²¹⁰Pb lead ²¹²Pb lead ²¹⁴Pb lead leukemia lineal energy linear hypothesis linear no threshold liquid scintillation liquid scintillation cocktail see waste, low-level lithium litigation low doses luminescence luminous painting lungs, human lungs, rodent

Μ

magnetic field magnetic resonance imaging see imaging; radiation, nonionizing mammography see imaging; x-ray imaging; diagnostic imaging mapping mass spectrometry matrice maximum contaminant level maximum permissible concentration maximum permissible exposure medical radiation see radiation therapy; nuclear medicine membrane metabolism metal, trace mice microdosimetry microwaves see radiation, nonionizing milk minimum detectable activity mining, coal mining, phosphate mining, uranium mixed field dosimetry mixed oxide modeling, biological factor modeling, dose assessment modeling, meteorological monitoring, air monitoring, environmental monitoring, occupational monitoring, personnel monitors, radiation monitors, radon monitor, units monkey **Monte Carlo** mortality multichannel analyzer multi-layers collimator, MLC

Ν

Nagasaki see health effects; atomic bomb survivors naturally occurring radionuclide neoplasm see tumor NEA (Nuclear Energy Agency) nephron neptunium

neutron activation neutron convertor neutron detection neutron dosimetry neutron fields neutrons nickel nitrogen **NORM** normal tissue complication probability, NTCP nuclear fuel cycle nuclear medicine nuclear power industry nuclear power plant nuclear reactor nuclear war see weapons; fallout nuclear weapon nuclear worker see exposure, occupational nutrition pathway see transport, environmental, food chain

0

occupational disease occupational exposure occupational safety OHSAS operational topic optic see radiation, nonionizing optimisation OSL ozone

Р

packaging partition coefficient patient patient protection pediatric peer review pertechnetate phantom phantom, mathematical pharmacokinetic ³²P phosphorous

photons photosynthesis physic, high-energy physic, medical physic, particle pig planning target volume, PTV plant toxicity plant uptake see uptake, plant; food chain plasma plutonium ²³⁷Pu plutonium ²³⁸Pu plutonium ²³⁹Pu plutonium ²⁴⁰Pu plutonium ²¹⁰Po polonium ²¹⁸Po polonium positron emission tomography (PET)positron potassium ⁴⁰K potassium potassium iodate potassium iodide see thyroid potential alpha energy concentration power plant, coal-burning see coal: fly ash power plant, nuclear pregnancy preventive, medicine professional ethic see ethic ¹⁴⁷**Pm** promethium proportional counters proton public information

Q

qualified expert quality assurance quality factor

R

radiation damage radiation dose

radiation effect see health effect radiation monitor radiation protection radiation risk radiation therapy see medical radiation; nuclear medicine radiation, alpha radiation, atmospheric radiation, background radiation, beta radiation, biology radiation, cosmic radiation, ionizing radiation, gamma radiation, low-level radiation, medical see imaging; nuclear medicine radiation, non-ionizing see electron spin resonance; electromagnetic fields; lasers; microwaves; optics; ultraviolet radiation; ultrasound radiation, technological enhancement radioactive material radioactivity radioactivity, airborne see emissions, atmospheric radioactivity, environmental radioactivity, indoor radioactivity, natural radioactivity, removal of see decontamination radioactivity, residual radiobiology radioecology radiofrequency radiography radiography, industrial radioimmunotherapy radioisotope radiological sensitivity radiology radionuclides (used when the number of radionuclide overpasses 3 or 4)

radiopharmaceutical radioprotectors radiotherapy radium radium dial painters ²²⁴Ra radium ²²⁶Ra radium ²²⁸Ra radium radon radon progeny ²²⁰Rn radon ²²²Rn radon ²²²Rn, indoor radon rat reactor, nuclear reactor, research recommendations **recovery** see repair recycling reference man regional blood volume regression regulation regulatory guide relative biological effectiveness remedial action remmeter, andersson, braun see monitors, radiation; detector, radiation repair, cellular respiratory system reviews see software reviews; book reviews **Rhone river** risk analysis see analysis, risk risk assessment risk communication risk estimates ruthenium

S

safety standard sampling scaling scanning scattering

scintillation chamber screen, x-ray screening measurement seawater sediment ⁷⁵Se selenium sensitivity factor SFRP (Société Française de Radioprotection) shielding silicon detector SI unit see international system of units: units, SI SIMS simulation skeleton skin skin dose social impact software review see review; computer soil soil-to-plant transfer sources speciation species comparison spectrometry, alpha spectrometry, gamma spectrometry, neutron spectrometry, X rays spectroscopy, alpha spectroscopy, gamma spectroscopy, fluorescence spent fuel stakeholder standard statistics stem cells ⁸⁵Sr strontium ⁹⁰Sr strontium ³⁵S sulfur sulfur dioxide surface contamination survey meter survey

survivor, atomic bomb see atomic bomb survivors; Hiroshima; Nagasaki sustainable synchrotron

Т

tailings, uranium technetium ⁹⁹Tc technetium ^{99m}Tc technetium ¹²⁴Te tellurium **TENORM** terrestrial animal terrorism ²⁰¹Tl thallium thermoluminescence dosimetry thorium ²³⁰Th thorium ²³²Th thorium thoron thorotrast three-dimensional radiation therapy thyroid tissue equivalence tissue sampling tissue, body toxicity, chemical see biological toxicology toxicity, radiological see biological effects track detector transfer coefficient transformation factor transpiration transplantation transport, environmental see food chain transportation transuranium element treatment treatment, medical treatment planning system, TPS tritium tritiated water

tumors see neoplasms tumor control probability, TCP

U

ultraviolet radiation see radiation. nonionizing uncertainties **United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR)** unit, SI see SI units; International System of Units uptake, plant see plant uptake; food chain uranium uranium, depleted uranium dioxide uranium mines uranium ores ²³⁴U uranium $^{238}\mathrm{U}\ uranium$

v

ventilation video display terminal volume dose histogram, VDH voxel voxel phantoms vulnerability

W

Waste waste disposal waste management waste storage waste transportation waste, low-level water water, ground refers to underground supplies, i.e. via faucets, wells, groundwater transport, etc. water, salt water, surface refers to fresh water,

but not underground sources

water treatment

weapons see nuclear war; fallout whole body counting whole body irradiation wipe test working levels radon world health organization (WHO) workplace wound

Х

x ray x-ray imaging see imaging x-ray machine

Z

Zn-DTPA see chelation