

GLOSSARY OF TERMS AND ACRONYMS 1

Acute Exposure:	An exposure, often intense, over a relatively short period of time.
Alpha Radiation:	The least penetrating type of nuclear radiation; not considered dangerous unless alpha-contaminated particles enter the body.
Asphyxiation:	One of the six types of harm (see TRACEM) that can be encountered at a terrorist incident. Asphyxiants interfere with oxygen flow during normal breathing. There are two types of asphyxiants: simple and chemical.
B-NICE:	The acronym for identifying the five categories of terrorist incidents: B iological, N uclear, I ncendiary, C hemical, and E xplosives.
Bacteria:	Single-celled organisms that multiply by cell division and can cause disease in humans, plants, or animals. Examples include anthrax, cholera, plague, tularemia, and Q fever.
Beta Radiation:	A type of nuclear radiation that is more penetrating than alpha radiation and can damage skin tissue and harm internal organs.
Biological Agent:	Living organisms, or the materials derived from them, that cause disease in, or harm to, humans, animals, or plants, or cause deterioration of material. Biological agents may be found as liquid droplets, aerosols, or dry powders. A biological agent can be adapted and used as a terrorist weapon, such as anthrax, tularemia, cholera, encephalitis, plague, and botulism. There are three different types of biological agents: bacteria, viruses, and toxins.
Biological Incident:	An event in which a biological agent is used as a terrorist weapon.
Blister Agent:	A chemical agent, also called a vesicant, which causes severe blistering and burns to eyes, skin, and tissues of the respiratory tract. Exposure is through liquid or vapor contact. Also referred to as mustard agents; examples include mustard and lewisite.
Blood Agent:	A chemical agent that interferes with the ability of blood to transport oxygen and causes asphyxiation. These substances injure a person by interfering with cell respiration (the exchange of oxygen and carbon dioxide between blood and tissues). Common examples are hydrogen cyanide and cyanogen chloride.
Chemical Agent:	There are five classes of chemical agents, all of which produce incapacitation, serious injury, or death: (1) nerve agents, (2) blister agents, (3) blood agents, (4) choking agents, and (5) irritating agents. A chemical substance used in military operations is intended to kill,

seriously injure, or incapacitate people through its physiological effects.

Chemical Harm: One of the six types of harm (see TRACEM) that can be encountered at a terrorist incident. There are two broad types of chemical agents that can cause harm: toxic and corrosive materials.

Chemical Asphyxiant: Referred to as blood poisons, these are compounds that interrupt the flow of oxygen in the blood or the tissues in three ways: (1) They react more readily than oxygen with the blood. Carbon monoxide is the best-known example. (2) They liberate the hemoglobin from red blood cells, resulting in a lack of transport of oxygen. Hydrazine is one such asphyxiant. (3) They cause a malfunction in the oxygen-carrying ability of the red blood cells. Benzene and toluene are two of these.

Choking Agent: A chemical agent that causes physical injury to the lungs. In extreme cases, membranes swell and lungs become filled with liquid, which can result in asphyxiation resembling drowning. Death results from lack of oxygen; hence, the victim is “choked.” Common examples are chlorine and phosgene.

Chronic: An exposure, often mild, over a long period of time.

Consequence Management: As described in PDD-39, consequence management is the response to the disaster, and focuses on alleviating damage, loss, hardship, or suffering. The Federal Emergency Management Agency (FEMA) has the lead in consequence management.

Corrosive Materials: One type of chemical agent that can cause chemical harm at an incident scene. They are liquids or solids causing visible destruction or irreversible alterations in human skin tissue at the site of contact.

Crisis Management: As described in PDD-39, crisis management is the law enforcement response, and focuses on the criminal aspects of the incident. The Federal Bureau of Investigation (FBI) has the lead in crisis management.

Distance: One of the three components of the time, distance, and shielding (TDS) response; refers to the recommendation that one maintain distance from a hazard is at all possible. Refer to the *North American Emergency Response Guide* (NAERG) as an appropriate resource.

Emergency Operations Plan (EOP): An EOP is a document that (1) assigns responsibility to organizations and individuals for carrying out specific actions at projected times and places in an emergency that exceeds the capability or routine responsibility of any one agency; (2) sets forth lines of authority and organizational relationships, and shows how all

actions will be coordinated; (3) describes how people and property will be protected in emergencies and disasters; (4) identifies personnel, equipment, facilities, supplies, and other resources available for use during response and recovery operations; and (5) identifies steps to address mitigation concerns during response and recovery activities.

Emergency Support Functions (ESF):

The Federal Response Plan (FRP) details 12 ESFs in place to coordinate operations during Federal involvement in an incident: transportation, communications, public works and engineering, firefighting, information and planning, mass care, resource support, health and medical services, urban search and rescue, hazardous materials, food, and energy.

Etiological Harm:

One of the six types of harm (see TRACEM) that can be encountered at a terrorist incident. Involves exposure to a living microorganism, or its toxins, which causes, or may cause, human disease. Biological agents are the most obvious examples of etiological agents.

Explosive:

As defined by the US Department of Transportation (DOT), “a substance fitting into one of these two categories: (1) any substance or article, including a device, designed to function by explosion; or (2) any substance or article, including a device, which, by chemical reaction within itself, can function in a similar manner even if not designed to function by explosion.

Explosive Incident:

An event in which an explosive device is used as a terrorist weapon.

Federal Response Plan (FRP):

Developed to help expedite federal support to disasters. Generally, the FRP is activated when the State’s resources are not sufficient to cope with a disaster, and the governor has requested federal assistance.

GEDAPER:

An acronym used to describe an incident analysis process. The steps include (1) **G**athering information, (2) **E**stimating course and harm, (3) **D**etermining strategic goals, (4) **A**ssessing tactical options and resources, (5) **P**lanning and implementing actions, (6) **E**valuating, and (7) **R**eviewing.

Gamma Radiation:

Gamma rays are high-energy, ionizing radiation that travel at the speed of light and have great penetrating power. They can cause skin burns, severely injure internal organs, and have long-term, physiological effects.

Incendiary Device:

Any mechanical, electrical, or chemical device used intentionally to initiate combustion and start a fire.

Irritating Agent	A chemical agent, also known as a riot control agent or tear gas, which causes respiratory distress and tearing designed to incapacitate. Common examples include chloropicrin, MACE, tear gas, pepper spray, and dibenzoxazepine.
Limited consequences:	Involve State and local capabilities.
Local EOP:	The local Emergency Operations Plan (EOP), or County Emergency Operations Plan (C-EOP), focuses on essential measures for protecting the public, to include warning, emergency public information, evacuation, and shelter. A mechanism for emergency responders and managers to notify and activate State resources should be included in a local EOP.
Major consequences:	Exceed state and local capabilities, and require a federal response.
Mechanical Harm:	One of the six types of harm (see TRACEM) that can be encountered at a terrorist incident. Causes trauma from contact with mechanical or physical hazards. One form of mechanical injury can result from an explosive device. Other types include routine slip, trip, and fall hazards.
NAERG:	<i>The North American Emergency Response Guidebook.</i>
Nerve Agent:	A substance that interferes with the central nervous system. Exposure is primarily through contact with the liquid (skin and eyes) and secondarily through inhalation of the vapor. Three distinct symptoms associated with nerve agents are pinpoint pupils, an extreme headache, and severe tightness in the chest. Examples of nerve agents are sarin, Soman, tabun, and VX agent.
Nuclear Incident:	An event in which a nuclear agent is used as a terrorist weapon. There are two fundamentally different threats in the area of nuclear terrorism: (1) the use, or threatened use, of a nuclear bomb; and (2) the detonation of a conventional explosive incorporating nuclear materials.
Nuclear Weapons:	Release of nuclear energy in an explosive manner as the result of nuclear chain reactions involving fission and/or fusion of atomic nuclei. (DOE)
Plan of Action:	A written document that consolidates all of the operational actions to be taken by various personnel in order to stabilize the incident.
Presidential Decision Directive 39 (PDD-39):	Issued in June 1995, PDD-39, <i>United States Policy on Counterterrorism</i> , directed a number of measures to reduce the United State's vulnerability to terrorism, to deter and respond to terrorist acts, and to strengthen capabilities to prevent and manage the consequences of terrorist use of nuclear, biological, and chemical weapons.

Radiological Dispersal Devices (RDD):	A conventional explosive incorporating nuclear materials.
Radiation:	This is nuclear radiation, not radiation as a type of heat transfer. There are three types of nuclear radiation: (1) alpha, (2) beta, and (3) gamma. Radiation is the cause of one of the six types of harm (see TRACEM) that can be encountered at a terrorist incident.
Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288:	The Stafford Act authorizes the federal government to respond to disasters and emergencies in order to help state and local governments save lives, and to protect public health, safety, and property.
Shielding:	One of the three components of TDS; refers to maintaining significant physical barriers between you and the hazard. (Examples include vehicles, buildings, walls, and PPE.)
Significant Threat:	Indicates the confirmed presence of an explosive device or WMD capable of causing a significant destructive event, prior to actual injury or property loss. (FBI)
Simple Asphyxiant:	Generally, an inert gas that displaces the oxygen necessary for breathing, and dilutes the oxygen concentration below the level that is useful for the human body.
Sizeup:	The rapid mental evaluation of the factors that influence an incident. Sizeup is the first step in determining a course of action.
Stafford Act:	Robert T. Stafford Disaster Relief and Emergency Assistance Act.
State EOP:	The state's Emergency Operations Plan (EOP), which the framework within which local EOPs are created and through which the federal government becomes involved. The state plays three roles: (1) it assists local jurisdictions whose capabilities are overwhelmed by an emergency; (2) it responds first to certain emergencies; and (3) it works with the federal government when federal assistance is necessary.
Strategic Goals:	Strategic goals are broad, general statements of intent.
Technical Operations:	Operations to identify, assess, dismantle, transfer, dispose, and decontaminate personnel and property exposed to explosive ordnance or NBC/WMD material.

Terrorist Incident:	A violent act, or an act dangerous to human life, in violation of the criminal laws of the United States or of any state, to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives. (FBI)
TRACEM:	The acronym used to identify the six types of harm one may encounter at a terrorist incident: T hermal, R adioactive, A sphyxiation, C hemical, E tiological, and M echanical.
Terrorism:	“The unlawful use of force against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in the furtherance of political or social objectives.” (FBI) This definition includes three elements: (1) Terrorist activities are illegal and involve the use of force. (2) The actions are intended to intimidate or coerce. (3) The actions are committed in support of political or social objectives.
Terrorism Incident Annex:	The annex to the FRP that describes the federal concept of operations to implement PDD-39 when necessary to respond to terrorist incidents within the U.S.
Thermal Harm:	One of the six types of harm (see TRACEM) that can be encountered at a terrorist incident. Thermal harm is the result of exposure to the extremes of heat and cold.
Time:	One of the three components of TDS; refers to the amount of time a responder should be exposed to an incident. It is recommended that one spend the shortest amount of time possible in the hazard area.
Time, Distance, And Shielding (TDS):	Three types of protective measures commonly associated with hazardous materials training.
Toxic Materials:	Types of chemicals that can cause chemical harm at an incident scene. They produce harmful effects depending on the concentration of the materials and the length of exposure to them. An individual can have chronic or acute exposures to toxic materials.
Toxins:	Toxic substances of natural origin produced by an animal, plant, or microbe. They differ from chemical substances in that they are not manmade. Toxins may include botulism, ricin, and mycotoxins.
Vesicants:	Chemical agents, also called blister agents, which cause severe burns to eyes, skin, and tissues of the respiratory tract. Also referred to as mustard agents, examples include mustard and lewisite.
Virus:	The simplest type of microorganisms, lacking a system for their own metabolism. They depend on living cells to multiply and cannot live

long outside of a host. Types of viruses are smallpox, Ebola, Marburg, and Lassa fever.

**Weapon of Mass
Destruction:**

WMD are defined as (1) any destructive device as defined in 18 U.S.C., Section 2332a, which includes any explosive, incendiary, or poison gas, bomb, grenade, rocket having a propellant charge of more than four ounces, missile having an explosive or incendiary charge of more than one quarter ounce, mine or device similar to the above; (2) poison gas; (3) any weapon involving a disease organism; or (4) any weapon that is designed to release radiation or radioactivity at a level dangerous to human life.

ACRONYMS

ADEM:	Arkansas Department of Emergency Management
AHD:	Arkansas Health Department
ASP:	Arkansas State Police
ANG:	Arkansas National Guard
AT:	Antiterrorism
BT:	Bioterrorism
BW:	Biological Warfare
C/B:	Chemical/Biological
CBDCOM:	Chemical Biological Defense Command (US Army)
CBIRF:	Chemical Biological Incident Response Force (US Marines)
CBRRF:	Chemical Biological Rapid Response Force (Quick Response Force)
CBT:	Chemical, Biological Warfare
CCMIS:	Crisis Consequence Management Information System
CEOC:	County Emergency Operations Center
CIRG:	Critical Incident Response Group (FBI)
EPA:	Environmental Protection Agency
OEM:	Office of Emergency Management
DEST:	Domestic Emergency Support Team
DEQ:	Department of Environmental Quality
DMAT:	Disaster Medical Assistance Team
DOC:	Department Operations Center
DOD:	Department of Defense
DOE:	Department of Energy
DOMS:	Directorate of Military Support
EOD:	Explosive Ordnance Disposal (bomb response)
EOC:	Emergency Operations Center
EOP:	Emergency Operations Plan
ESF:	Emergency Support Function
FBI:	Federal Bureau of Investigation
FCO:	Federal Coordinating Officer
FEMA:	Federal Emergency Management Agency
FRA:	First Responder Awareness (HazMat)
FRO:	First Responder Operational (HazMat)
FROD:	First Responder Operational-Decon
FRP:	Federal Response Plan
HAZMAT:	Hazardous Materials
HMRU:	Hazardous Material Response Unit (FBI)
ICS:	Incident Command System
IDD:	Improvised Dispersal Device
IED:	Improvised Explosive Device
IRT:	International radical terrorist
IRV:	Incident Response Vehicle
JIC:	Joint Information Center
JOC:	Joint Operations Center
LEPC:	Local Emergency Planning Committee
LFA:	Lead Federal Agency
MAC:	Medical Alert Center

MSCA: Military Support to Civil Authorities
NAAK: Nerve Agent Antidote Kit (Mark-I Autoinjector)
NBC: Nuclear, Biological, Chemical
NDMS: National Disaster Medical System
NEST: Nuclear Emergency Search Team (DOE)
NLD: Nunn-Lugar-Domenici (Domestic Preparedness Legislation)
NMRT: National Medical Response Team (for WMD)
OPSEC: Operational security
OSC: On Scene Commander
PDD-39: Presidential Decision Directive-39
PPE: Personal Protective Equipment
PIO: Public Information Officer
RAID: Rapid Assessment and Initial Detection Team (National Guard)
RDD: Radiological dispersal device
SCBA: Self-Contained Breathing Apparatus
SERC: State Emergency Response Commission
SO: Sheriff's Office
SOP: Standard Operating Procedure
WMD: Weapons of Mass Destruction

GLOSSARY OF TERMS AND ACRONYMS 2

Absorbed Dose - The energy imparted to matter by ionizing radiation per unit mass of irradiated material at the place of interest. The unit of absorbed dose is the radiation absorbed dose (rad) (see Rad; Dose).

Activity - The rate of decay of radioactive material, expressed average number of nuclear disintegrations per second (see Curie).

ADEM - Arkansas Department of Emergency Management

Alt. - Alternate

Annex - A section of the Emergency Operations Plan, which outlines the operations of a particular emergency function or service.

ANWC - Alternate National Warning Center

ARM - Aerial Radiological Monitoring

ASP - Arkansas state Police

BP - Basic Plan

Bulk Repository - A central storage facility for radiological instruments within a local community.

Burn. - Burners

Calibration - A procedure, utilizing radioactive sources, for establishing the accuracy of radiological instruments.

CC Spaces - Congregate Care Spaces

Citizens Band (CB) - Two-way radio restricted to low power capability and operated on the low frequency transmission band.

Civil Preparedness Guide (CPG) Publications of the Federal Emergency Management Agency, which describe civil defense programs and provide guidance to State and local civil preparedness director/ coordinators for developing programs within their communities.

COG - Continuity of Government

Community Shelter Plan (CSP) - A plan for sheltering the population within the community (shelter-in-place).

Contamination (Radioactive) - Radioactive material (fallout) deposited on the surface of structures, areas, objects, or persons following a nuclear explosion.

Controlled Area - An area where entry, activities, and exit are controlled to assure radiation protection and prevent the spread of contamination.

Coord. - Coordinator

Countermeasures - Protective actions to reduce the effects of nuclear detonations upon the population.

Crises Relocation - Movement of people on the threat of a nuclear attack to an area less threatened by the direct weapons effects.

CRP - Crisis Relocation Plan

Curie - The basic measuring unit used radioactivity in a sample of material. One curie is equal to 37 billion disintegrations per second.

DAC - Disaster Applications Center

Decontamination - The reduction or removal of contaminating radioactive material from a structure, area, object, or person.

Decontamination (Radioactive) - The removal (or covering) of radioactive contamination from a structure, area, object or a person.

Detector- A material or device that is sensitive to radiation and can produce a response signal suitable for measurement or analysis. A radiation detection instrument.

DHS - Department of Human Services

Director/Coordinator - The individual who has the responsibility for a local civil defense or emergency preparedness program.

Disaster Analysis - A review and determination of damages suffered by a community from a nuclear attack.

Dose - A general term for denoting the quantity of radiation or energy absorbed. If unqualified, it refers to absorbed dose. For special purposes it must be approximately qualified. If used to represent exposure expressed in roentgens (R), it is a measure of the total amount of ionization that the quantity of radiation could produce in air (see Absorbed Dose).

Dose Rate - The absorbed dose delivered per unit time. It is usually expressed as rads per hour, or in multiples or submultiples of this unit, such as millirads per hour. The dose rate is commonly used to indicate the level of hazard from a radioactive source. (See Rad; Dose)

Dosimeter - An instrument used for measuring and registering total accumulated exposure to radiation.

Electromagnetic Pulse (EMP) - Energy in the medium-to-low frequency range, radiated by a nuclear detonation that may affect or damage electrical or electronic components and equipment.

EMA - Emergency Management Assistance

Emergency Broadcast System (EBS) - A network of AM and FM radio and T'V stations linked to State or local EOC's that would remain on the air during an emergency to provide emergency information to public.

Emergency Operating Center (EOC) - A protected site from which civil government officials can exercise direction and control of operations in an emergency.

Emergency Operations Plan (EOP) - A documented procedure which describes the local concept of emergency operations, assigns responsibilities for emergency response, and outlines emergency operating procedures. It normally contains a Basic Plan of general responsibility applicability, several annexes for more specific operations of services or functions, and attachments, tabs, and SOP's (Standard Operating Procedures) for more detailed operations.

Emergency Workers - Individuals who are responsible for lifesaving or recovery operations.

EMT - Emergency Medical Technician

EPI - Emergency Public Information

EPM- Emergency Program Manager

EPZ - Emergency Planning Zone

ESS - Emergency Support Services

Essential Industries - The industries that are necessary to provide critical goods and services which would enable the community to survive and recover from a nuclear attack.

Expedient Shelters - See Public Shelter

Exposure - A quantity used to indicate the amount of ionization in air produced by x- or gamma radiation. The unit is the roentgen (R) .For practical purposes; one roentgen is comparable to 1 rad or 1 rem for x- or gamma radiation.

Exposure (Radiation) - The total or accumulated quantity of radiation that an individual experiences, usually expressed in roentgens.

Exposure Control (Radiation) - Procedures taken to minimize the radiation exposures of individuals or groups commensurate with the accomplishment of essential survival activities.

Exposure Rate (Radiation) - The amount of radiation to which individual is exposed per unit of time, usually expressed in roentgens per hour.

FEMA – Federal Emergency Management Agency

Fac. No. – Facility Number

Fallout (Radioactive) - Airborne particles containing radioactive material which settle to the surface of the earth following a nuclear explosion; also, the deposition on the surface of the earth of radioactive substances resulting from a nuclear explosion. Early fallout, also called local fallout, is that fallout which settles to the surface of the earth during the first 24 hours after a nuclear explosion; delayed fallout, also called worldwide fallout, is that fallout which settles to the surface of the earth at some time later than the first 24 hours after a nuclear explosion. Early fallout produces most of the fallout radiation.

Federal Communications Commission (FCC) -The Federal responsible for the licensing of radio users and control nation's airwaves for radio broadcast.

FNS - Federal Nutrition Service

Hot spots - An area on a contaminated surface radiation is greater than neighboring areas.

Hwys. - Highways

IEMS - Integrated Emergency Management System

Improvised Shelter - See Public Shelter

Ion - Atomic particle, atom, or chemical radical bearing an electrical charge, either negative or positive.

Ionization - The separation of normally electrically neutral atoms or molecules into electrically charged components. The term is also employed to describe the degree or extent to which this separation occurs. Ionization is the removal of an electron (a negative charge) from an atom or molecule, either directly or indirectly, leaving a positively charged ion. The separated electron and ion are referred to as an ion pair.

Ionizing Radiation - Electromagnetic radiation (X-ray and gamma-ray photons) or particulate radiation (electrons, positrons, protons, and heavy particles) capable of producing ions by direct or processes.

IRR - Increased Readiness Report

Irradiation - Exposure to ionizing radiation MCI - Mass Casualty Incident

Monitoring - Periodic or continuous determination of the amount of ionizing radiation or radioactive contamination present for purposes of health protection. Also referred to as “surveying.”

National Warning System (NAWAS) - The federal portion of the *civil* defense warning system used to disseminate warning and other emergency information from the National Warning Center or Regions to warning points in each state.

Nuclear Attack - Warfare against this country involving the use of nuclear weapons.

Nuclear Regulatory Commission (NRC) - The federal agency responsible for the safety of nuclear power facilities and regulation of the possession, use, and disposal of radioactive materials. Formerly a part of the Atomic Energy Commission.

NUDET - Nuclear Detonation

NWC - National Warning Center

OEM - Office of Emergency Management

OPSIT - Operational Situation Report

OS - "On-site" Storage of Radiological Monitoring operational Sets

PF - Protection Factor

PF Cat - Protection Factor Category. A designation of the relative protection from fallout radiation provided by a facility. There are four official categories as follows: PF Cat X - protection factor of 1 to **9**; PF Cat 0 - protection factor of 10 to 19; PF Cat 1 - protection factor of 20 to 39; PF Cat 2-3 - protection factor of 40 to 99, and PF Cat 4- protection factor of 100 or better.

Phases - The various times and operations based on the envisioned environment of a nuclear attack.

Normal Phase (MITIGATION) - The pre-emergency time frame when there is no abnormal world tension and normal peacetime day-to-day operations are possible. During this period, plans for emergency operations should be developed.

Increased Readiness Phase or Surge Phase (PREPAREDNESS) The pre-attack time frame when world tensions are high and crisis preparations for protection of the population and government are undertaken. During this period, civil defense systems are upgraded from the minimum level of operational readiness toward the total preparedness level required by the jurisdiction.

Emergency Phase (RESPONSE) - The attack phase when nuclear attack is imminent or is occurring. It begins with an attack warning and lasts until radiation levels have decreased sufficiently to allow performance of urgent short-term unprotected operations and initiation of post-attack recovery actions.

Recovery Phase (RECOVERY) - The post-attack time frame when operations are conducted to return the community as nearly as possible to the pre-emergency level. It begins when radiation levels have decreased and unprotected operations are possible and lasts until recovery is complete and the community has returned to near normal operations.

PIO - Public Information Officer

PL - Public Law

Protection Factor (PF) - A theoretical value that defines the ratio of the exposure rate from fallout gamma radiation to be expected in a protected location compared to the exposure rate expected with the same amount of radiation in a completely unprotected idealized location. PF values result from calculations that take into account building design, the types of building materials, and the locations of the areas within the building. PF values should only be used for planning purposes.

PPP - Population Protection Planning

Public Shelter - Facilities which have been surveyed and meet minimum requirements for protecting occupants from fallout radiation.

Expedient Shelter (or Improvised Shelter) - Facilities which are constructed in an Increased Readiness Period to provide fallout and blast protection.

Upgraded Shelters - Facilities which have additional mass such as earth or bricks added to increase their fallout protection.

R - Roentgen (a unit of gamma (or x-ray) exposure)

RACES - Radio Amateur Civil Emergency Service. An amateur radio resource licensed by the Federal Communications Commission to remain on the air during a national emergency in support of civil defense operations. When organized locally, it provides high frequency communications capable of operating over long distances without the use of repeaters or wire line controlled equipment.

Rad - Radiation absorbed dose. A (rad) is the unit of absorbed dose. The rad is a measure of the energy imparted to matter by ionizing particles per unit mass of irradiated material at the place of interest. A rad is approximately equal to the absorbed dose in tissue when the exposure in air is one roentgen (R) of medium-voltage x-radiation.

RADEF Communications - The communications required within a jurisdiction to link local reporting stations, shelters, and emergency services workers to the local EOC and on to State EOC's for weapons effects reporting and self-protection operations.

RADEF Program - The means by which RADEF Systems are developed, implemented, exercised, and maintained. It provides the plans, trained personnel, facilities, and instruments combined into a complete operational RADEF system.

RADEF Support System - An emergency response capability or group of emergency response capabilities with a common mission. The RADEF Support System should function in an organized manner in an emergency to provide responsible authorities with information on the radiation environment so they can make decisions and initiate actions that will minimize the effects of the radiation hazard. It does this by 1) detection, measurement, evaluation, and assessment of the radiation hazard, 2) selective reporting of radiological information to higher authorities, 3) providing guidance on exposure control of personnel and (4) recommending application of appropriate countermeasures.

Radiation (Nuclear) - High-speed particles and electromagnetic radiation spontaneously emitted from the nucleus of unstable (radioactive) atoms.

Alpha Particle - A charged particle of relatively large mass emitted spontaneously from the nuclei of certain radioactive atoms. It can penetrate only the epidermal layer of skin. It is primarily only an internal radiation hazard.

Beta Particle - A charged particle of very small mass emitted spontaneously from the nuclei of certain radioactive atoms. It can penetrate the skin and may cause severe skin and tissue damage. It is both an internal and external hazard.

Gamma Ray - Electromagnetic radiation of high energy originating in atomic nuclei and accompanying many nuclear reactions. It is identical with an x-ray of high energy. It can penetrate dense materials. It is a serious external hazard.

Radioactive Decay - The decrease with the passage of time of time in the amount of radiation being emitted by radioactive material.

Radioactivity - The spontaneous emission of radiation, generally alpha or beta particles often accompanied by gamma rays, from the nucleus of an unstable atom. As a result of this emission, the radioactive atom is converted, or decays, into an atom of a different element that might or might not be radioactive. Ultimately, as a result of one or more stages of radioactive decay, a stable, nonradioactive atom is formed.

Radiological Analyst - A person trained to prepare monitored radiological data in analyzed form for use in the area served as well as by other levels of government to which reports of such data are sent. He or she will also evaluate the radiation decay patterns as a basis for estimates of future exposure rates and radiation exposures associated with emergency operations.

Radiological Defense (RADEF) - A program including plans, procedures, and systems to monitor, report, and evaluate the radiological hazard resulting from a nuclear attack. It supports preventive and remedial measures to minimize the effect of radiation on people and resources.

Radiological Defense Officer (RDO) - The principal technical advisor within the Emergency Operating Center on matters pertaining to RADEF

Radiological Monitor (RM) - An individual trained to measure, record, and report radiation exposure and exposure rates, and provide limited field guidance on radiation hazards associated with his assigned operations.

Radiological Monitoring (RAMONT) - The process of utilizing radiological instruments to determine radiation exposure and exposure rates.

Aerial Radiological Monitoring (ARM) The utilization of aircraft and radiological instruments to acquire radiation exposure rate data on large areas and at or between locations of special interest.

Self-Protection Radiological Monitoring - Monitoring by emergency workers and personnel of essential facilities industries who must conduct emergency operations under fallout conditions.

Shelter Radiological Monitoring - Monitoring in public shelters to detect, measure, and assess the radiation hazard fallout.

Mobile Radiological Monitoring - Monitoring operations conducted on foot or by vehicles in areas where specialized knowledge of the fallout situation is required.

Radiological Monitoring Instruments - Special instruments designed to detect and measure radiation exposure rates or accumulated exposure.

Radiological Officer (RO) - A person who has been trained to assume the responsibility for policy recommendations for the radiological protection of a state, county, locality, facility, or a relatively large group of organized personnel.

RRT - Radiological Response Team

Rem (Roentgen Equivalent Man) - A special unit of radiation dose equivalent. The dose equivalent in rems is numerically equal to the absorbed dose multiplied by the quality factor (Q), the distribution factor, and any necessary modifying factors.

Reporting Area - A geographic area of a State or County designated for submission of radiological fallout or NUDET reports.

Shelter Manager - An individual responsible for the operation of a public fallout shelter in an emergency.

Shipping Package or warning label - Label affixed to a package of hazardous material to identify the package contents. Department of Transportation (DOT) regulations establish the design and use requirements for these labels.

Shipping Paper, or shipping documents - Forms containing a description of the materials being transported which must accompany all packages of radioactive material.

Soil Reg - Soil requirements

Standing Operating Procedure (SOP) - A detailed plan emergency operational procedures for a facility or activity.

Survey Instrument - A portable instrument used for detecting and measuring radiation under varied physical conditions. The term covers a wide range of devices.

Svcs. - Services

Upgrad. Spaces - Upgradeable Spaces

Vehicle Warning Placard - A sign displayed on the outside of a carrier of hazardous material indicating the nature of the cargo. The design and use of placards is specified by the Department of Transportation (DOT) regulations.

Vital Facilities - Facilities at fixed locations, which are essential to the conduct of emergency operations, national security, or national recovery.

Radiation Reporting station - Formerly (SER), Fallout Monitoring or Fixed Monitoring Station. A facility with fallout protection, reliable communications, instruments and trained monitors that is designated for the collection and reporting of weapons effects and radiological data to the EOC. Formerly RADEF Monitoring and reporting Network. A network of stations strategically located throughout the jurisdiction to provide the local EOC RADEF operation or Disaster Analysis section with data on weapons effects damage fallout radiation.