ERB Acronym and Glossary – I

Acronym	Glossary	Definition
I	Intake	A measure of exposure expressed as mass of a substance in contact with the exchange boundary per unit body weight per unit time (e.g., mg chemical/kg/day). Also termed the normalized exposure rate; administered dose, and applied dose.
IAG	Interagency Agreement	A formal agreement between the EPA, the state, and the Navy that establishes objectives, responsibilities, procedures, and schedules for remediation at NPL installations. The IAG must be made formal within 180 days of EPA's review of the RI/FS.
IAS	In Situ Air Sparging	A saturated zone remedial strategy. IAS involves the injection of pressurized air into the saturated zone. IAS induces a transient, air-filled porosity in which air temporarily displaces water as air bubbles migrate laterally from the sparge point and also vertically towards the water table. IAS induces a separate phase flux in which air travels in continuous, discrete air channels of relatively small diameter from the sparge point to the water table. Air movement through the saturated zone typically does not occur as migrating air bubbles, with the exception of within homogeneous, highly permeable formations of unconsolidated course sand and gravel deposits.
IC	institutional control	Administrative or legal mechanisms designed to protect public health and the environment from residual contamination at environmental restoration sites. For example, land use restrictions imposed by the property owner in a property deed would limit access to or use of the property.
ICE	Internal Combustion Engine	Any engine that operates by burning its fuel inside the engine.
ICP	Inductively Coupled Plasma	utilizes plasma to excite elemental electrons which produce photons unique to each element. An example of this procedure is one used for a whole rock analysis. In this procedure a lithium meta-borate flux is generally used to digest the specimen. Once digested, the solution is introduced to the plasma allowing elemental concentration comparisons to known concentration curves. Using stoichiometric techniques elemental concentrations can be converted into molecular weight percentages. An inductively coupled plasma source atomizes and excites even the most refractory elements with high efficiency. With this ICP, several elements can be determined simultaneously without the need for repeated aspirations, adjustment of instrument parameters and tracking of the samples.
ICR	Incremental Carcinogenic Risk Level	The potential for incremental carcinogenic human health effects due to exposure to the chemical(s) of concern.
ICRE	Ignitability, Corrosivity, Reactivity, Extraction (Characteristics)	these are the characteristics that define a RCRA hazardous waste as it appears and as defined in 40 CFR 261.
ICS	Incident Command System	An effective system for managing emergencies. Several States have adopted ICS as their standard for emergency management, and others are considering

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		adopting ICS.
IDL	Instrument Detection Limit	1) Under ideal conditions, that concentration of analyte which produces an output signal twice the root mean square of the background noise. 2) Three times the standard deviation obtained for the analysis of a standard solution (each analyte in reagent water) at a concentration of 3x-5x instrument detection limit, on three nonconsecutive days with seven consecutive measurements per day.
IDLH	Immediately Dangerous to Life and Health	The maximum level to which a healthy individual can be exposed to a chemical for 30 minutes and escape without suffering irreversible health effects or impairing symptoms. Used as a "Level of Concern." See Level of Concern.
ieFACMAN	interoperable enterprise Facilities Management	Information Technology Architecture - ¿ieFACMAN¿ represents a new direction for Naval Facility Engineering Command (NAVFAC) information systems. It is an enterprise solution, one that will be employed across all NAVFAC commands and business lines. ieFACMAN is an integrated suite of ¿best of breed¿ commercial applications and existing NAVFAC corporate systems. ieFACMAN is being developed as solution which: Implements standard, corporate business practices across NAVFAC. Provides the functional tools needed to perform and manage NAVFAC¿s work. Captures information about all NAVFAC work in a common data environment. The goal of ieFACMAN is to be a comprehensive system by which NAVFAC executes work and provides key information to NAVFAC and its many customers.
IMAD	Information Management and Distribution	forms the backbone information infrastructure; many capabilities (not currently available) will be an integral part of this information environment; providing technologies that allow automated, adaptive, and robust information resource management; incorporating a context-based rather than a message-based approach, information synchronization and real time management.
IMS	Internet Map Service	An interactive internet tool for displaying multiple layers of data on a map.
INRMP	Integrated Natural Resource Management Plan	a comprehensive plan for managing a site's natural resources.
IPT	Integrated Product Team	Integrated Product Service Delivery Team. Across all Business and Support Lines; includes all Functions Required to Create IPTs; ROICC part of IPT; Touch Point to Client for all Products & Services; Focal Point for Work Input, Client Expectations; Permanent Members Based on Workload, Client Specific needs, and Specialties of Professional Staff; IPT Leader: CEC 05 or GS-15/14; Reports to OPS (Warrantable if CEC, Registered PE/RA); Recommended Minimum Members: CIBL PM, ENV RPM, BOS PM, PLN REP, RE REP, 1102s; Other Virtual Members Tagged from BLM Staff; Using Single Project Manger Concept; Cradle to Cradle, End-to-End ; Coordinates PM, DM, and CM with CIBL; Could Reside in IPT or ROICC; Higher Level Skill Required; Uses New Acquisition Strategies for just-in-

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		time Engineering
IR	Infrared	Light that is so red humans cannot see it. A band of the electromagnetic spectrum between the visible and the microwave. Photons of infrared light are less energetic than photons of visible light.
IR	Ingestion Rate, mg/day, or Inhalation Rate	potential dose rate; is the amount of chemical which could be ingested or inhaled per day.
IR	Installation Restoration	Established in 1984 to help identify, investigate, and cleanup contamination on DoD properties; conducted under the auspices of CERCLA of 1980 and SARA of 1986; the DoD equivalent to the EPA Superfund program.
IRA	Interim Remedial Action	A response action under CERCLA to mitigate fire and safety hazards and to prevent further migration of the contaminant(s). It may be identified and implemented at any time during the study or design phase; limited in scope and addresses only areas or media for which a final remedy will be developed by the RI/FS process; should be consistent with the final remedy for a site.
IRIS	Integrated Risk Information System	A USEPA data base containing verified RfDs, slope factors and up-to-date health risk and USEPA regulatory information for numerous chemicals. IRIS is USEPA's preferred source for toxicity information for Superfund.
IRP	Installation Restoration Program	Established in 1984 to help identify, investigate, and cleanup contamination on DoD properties; conducted under the auspices of CERCLA of 1980 and SARA of 1986; the DoD equivalent to the EPA Superfund program.
IRTCC	Installation Restoration Technology Coordinating Committee	which later became the Environmental Technology Transfer Committee. These groups focused primarily on development, demonstration and transfer of environmental technologies for military use.
IS	Interim (Permit) Status	Period during which treatment, storage and disposal facilities coming under RCRA in 1980 are temporarily permitted to operate while awaiting a permanent permit.
IS	Interim Status	a period of time when hazardous waste storage, treatment facilities and transporters could continue to operate under a special set of regulations until the appropriate permit or license application is or approved by DER.
ISC	Initial Site Characterization	Completed after discovery of a release from an Underground Storage Tank (UST) and after any initial abatement measures and the site check have been completed. The ISC should assemble information into a report on the site such as the nature and estimated quantity of release; surrounding populations; water quality, use and well locations; storm water/wastewater systems; climatology; land use; results of the site check and initial abatement measures; and results of any free product removals. Equivalent to a CERCLA Preliminary Assessment (PA).
ISCO	In-Situ Chemical Oxidation	involves injecting chemical oxidants into the vadose zone and/or ground water to oxidize contaminants.
ISV	In Situ Vitrification	A commercially available mobile, thermal treatment

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		process that involves the electric melting of contaminated soils, sludges, or other earthen materials, wastes and debris for the purposes of permanently destroying, removing, and/or immobilizing hazardous and radioactive contaminants.
ISV	In Situ Volatilization	A system of mechanically venting air through contaminated soil in order to mobilize VOCs trapped in an anaerobic underground situation. The effectiveness of this technique is limited by the rate of VOCs venting into the atmosphere, which in a highly contaminated site requires air filtration and thus the continuing liability for the byproduct of contaminated filters in landfills.
ITRC	Interstate Technology and Regulatory Council	The ITRC was initiated by the Western Governors Association to expedite the use of technology for the characterization and cleanup of contaminated sites. Twenty-six states have participated in this project. Most of the participating states have agreed to accept each other's test results if the agreed upon testing protocols are used. This would make it possible to test a technology in one of these states and have such results accepted in the 25 other states. In addition to the state representatives, there are a number of other groups, such as the Southern States Energy Board and a number of stakeholders who have participated.
IWA	In Well Aeration	treats groundwater and soil contaminated with hydrocarbons. In this process, groundwater is pumped to the surface and aerated, removing most of the volatile vapors. The aerated groundwater is distributed over an area of contaminated soil. The aerated water carries oxygen to the subsurface soil, promoting biodegradation. The combined process of biological treatment and physical extraction the time required to achieve remediation goals and lowers contaminant concentrations.

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	ignitable	1) A liquid that has a flash point less than 140°F. 2) Capable of burning or causing a fire.
	imminent threat	A threat posed by a site if human exposure in excess of applicable human health or environmental criteria is predictable prior to implementation of an effective remedial action or an operable unit thereof.
	immiscible	Refers to liquids which do not form a single phase when mixed; e.g. oil and water. Synonym - Non-Aqueous Phase Liquid. Antonym - Miscible.
	immunoassay	A technology used to measure biological reactions to individual compounds or classes of compounds. Immunoassay tests are designed to detect specific chemicals by measuring the chemicals' response to specific antibodies. The antibodies do not respond to dissimilar substances. The tests can be conducted in a

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		lab setting or in the field. Immunoassay kits have been developed as a method to rapidly screen for fuels, semi-volatile organic compounds (SVOCs), pesticides, and some metals in soil, sediment, groundwater, and surface water.
	impermeable	Not easily penetrated. The property of a material or soil that does not allow, or allows only with great difficulty, the movement or passage of water, particles or chemicals.
	in line filtration	Pre-treatment method in which chemical coagulants are added directly to the filter inlet pipe. The chemicals are mixed by the flowing water. Commonly used in pressure filtration installations. Eliminates need for flocculation and sedimentation.
	in situ	(1) In its original place; unmoved, unexcavated; remaining at the site or in the subsurface. (2) A technology or treatment process that can be carried out in place, without removal of the contaminated matrix.
	in situ barrier	Trench or cell in the subsurface designed to divert, isolate, and/or treat groundwater
	in situ biological reduction	A remediation process that involves establishing appropriately oxidizing or reducing conditions in an aquifer by stimulating biological activity. Contaminants are converted and then immobilized by natural on-site conditions
	in situ chemical oxidation/reduction	A remediation process that involves the injection of a chemical agent or electric current into soil and/or groundwater to oxidize or reduce a contaminant to a less-toxic (or non-toxic) state. Contaminants are then immobilized in place rather than brought to the surface for removal and treatment
	in situ remediation	A treatment process that can be operated within the site of contamination without bulk excavation. Antonym - Ex Situ.
	in situ respiration test	Test used to provide rapid field measurement of in situ biodegradation rates to determine the potential applicability of bioventing at a contaminated site and to provide information for a full-scale bioventing system design.
	in situ stripping	Treatment system that removes or "strips" volatile organic compounds from contaminated ground or surface water by forcing an airstream through the water and causing the compounds to volatilize/evaporate.
	incineration	A treatment technology involving destruction of waste by controlled burning at high temperatures, e.g., burning sludge to remove the water and reduce the remaining residues to a safe, non-burnable ash that can be disposed of safely on land, in some waters, or in underground locations.
	incinerator	Typically consists of a furnace and stack unit used for a variety of disposal activities including the controlled burning of medical waste, packaging and varieties of municipal waste.
	incompatible waste	A waste unsuitable for mixing with another waste or

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		material because it may react to form a hazard.
	indicator	1) In biology, an organism, species, or community whose characteristics show the presence of specific environmental conditions. 2) In chemistry, a substance that shows a visible change, usually of color, at a desired point in a chemical reaction. 3) A device that indicates the result of a measurement, e.g., a pressure gauge or a moveable scale.
	indigenous	1) Living or occurring naturally in a specific area or environment, native. 2) For bioremediation, microorganisms already living at a site.
	indirect exposure pathway	An exposure pathway with at least one intermediate release to any media between the source and the point(s) of exposure (for example, chemicals of concern from soil through groundwater to the point(s) of exposure).
	indoor air	The breathing air inside a habitable structure or conveyance.
	indurated	Rendered hard.
	industrial waste	Unwanted materials from an industrial operation; may be liquid, sludge, solid, or hazardous waste.
	infauna	1) Benthic organisms that live in or burrow through the bottom sediment. 2) Organisms living within a substrate.
	infiltration	1) The penetration of water through the ground surface into sub-surface soil or the penetration of water from the soil into sewer or other pipes through defective joints, connections, or manhole walls. 2) The technique of applying large volumes of wastewater to land to penetrate the surface and percolate through the underlying soil. See Percolation.
	infiltration gallery	Covers a wide range of subsurface groundwater collection systems. They are typically shallow in depth, constructed with open-jointed or perforated pipes that discharge collected water into a water-tight chamber from which the water is pumped to treatment facilities and into the distribution system. Usually located close to streams or ponds. Can also be used to collect water for remediation purposes after it has passed through an area of contamination as a type of washing method.
	infiltration rate	The quantity of water than can enter the soil in a specified time interval.
	influent	Water, wastewater, or other liquid flowing into a reservoir, basin, or treatment plant.
	information repositories	Collections of site information that include items which are related to the site, but may or may not be suitable for incorporation in the administrative record.
	ingestion	The introduction of a chemical into the body through the mouth. Inhaled chemicals may be trapped in saliva and swallowed. Exposed personnel should be prohibited from smoking, eating, or drinking except in designated rest areas after being decontaminated.
	inhalation	The introduction of chemical vapors or toxic products of combustion into the body by way of the respiratory

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		system. Toxins may be absorbed into the bloodstream and carried to other internal organs, or they may affect the upper and/or lower respiratory tract. Resulting respiratory injuries include pulmonary edema and respiratory congestion. Inhalation is the most common exposure route and often the most damaging.
	injection well	A well into which fluids or gases are injected for purposes such as waste disposal, improving the recovery of crude oil, solution mining, or delivering nutrients to speed biodegradation of chemicals in groundwater.
	injection zone	A geological formation receiving fluids through a well.
	innovative treatment technologies	Newly invented processes that have been tested and used as treatments for hazardous waste or other contaminated materials, but still lack enough information about their cost and how well they work to predict their performance under a variety of operating conditions. They are often used because they can offer cost-effective, long-term solutions to cleanup problems, they may provide an alternative to land disposal or incineration, and are often more acceptable to surrounding communities than some established treatment technologies.
	inorganic chemicals	Chemical substances of mineral origin, not usually having a carbon structure.
	inorganic compounds	A compound that generally does not contain carbon atoms, although carbonate and bicarbonate compounds are notable exceptions. Examples of inorganic compounds include various acids, potassium hydroxide, and metals.
	installation	The real property owned, formerly owned, or leased by the Navy, including a main base and any associated contiguous real properties identified by the same real property number.
	institutional controls	The restriction on use or access (for example, fences, deed restrictions, restrictive zoning) to a site or facility to eliminate or minimize potential exposure to a chemical(s) of concern.
	integrated exposure assessment	Cumulative summation (over time) of the magnitude of exposure to a toxic chemical in all media.
	interested parties/groups	Community members that live and/or work in the affected community that would be impacted by the release or potential release of a hazardous substance prior to, or as part of restoration activities at an IR site.
	interface	The common boundary between two substances such as water and a solid, water and a gas, or two separate liquids such as water and oil.
	interim action	Those removal actions that only partially address a problem or only address the problem for a short time. Interim actions require further study and possibly action, in addition to the interim action. Interim actions are most appropriate to mitigate immediate threats while allowing time for studies to be conducted, as necessary to determine a final solution.

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	interim corrective measure	A response action under RCRA to mitigate fire and safety hazards and to prevent further migration of the contaminant(s). It may be identified and implemented at any time during the study or design phase; limited in scope and addresses only areas or media for which a final remedy will be developed by the RI/FS process; should be consistent with the final remedy for a site.
	internal standards	Compounds added to every standard, blank, matrix spike, matrix spike duplicate, sample (for volatile), and sample extract (for semivolatile) at a known concentration prior to analysis. Internal standards are used as the basis for quantitation of the target compounds.
	interstate waters	Waters that flow across or form part of state or international boundaries, e.g., the Great Lakes, the Mississippi River, or coastal waters.
	interstices	The opening or pore spaces in a soil or rock formation. In an aquifer, they are filled with water.
	interstitial monitoring	The continuous surveillance of the space between the walls of an underground storage tank.
	intrinsic	1) Originating or due to causes within something. 2) Originating and occurring wholly within something.
	intrinsic bioremediation	The in situ reduction of contaminant concentrations resulting from the destruction, loss, or dilution of contaminant mass (without human intervention) to levels that do not pose a risk to human health or the environment.
	in-well aeration	The process of injecting gas into a well to produce an in-well airlift pump effect.
	ion	An electrically charged atom that can be drawn from waste water during electrodialysis.
	ion exchange treatment	A common water-softening method often found on a large scale at water purification plants that remove some organics and radium by adding calcium oxide or calcium hydroxide to increase the pH to a level where the metals will precipitate out.
	ionic strength	A measure of the concentration and charge of ions in solution. The ionic strength of a solution affects the solubility of compounds, most often increasing the solubility. This means that in the environment, chemicals could be more soluble in a "salt" solution than in pure water.
	irreversible effect	Effect characterized by the inability of the body to partially or fully repair injury caused by a toxic agent.
	irritant	A substance that can cause irritation of the skin, eyes, or respiratory system. Effects may be acute from a single high level exposure, or chronic from repeated low-level exposures to such compounds as chlorine, nitrogen dioxide, and nitric acid.
	isocontours	A contour line through points of equal value of a selected property (such as elevation) on a two-dimensional representation of a three-dimensional surface (such as a map).

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	isolation procedure	The process of limiting the number of civilian and public service personnel exposed to a hazardous material.
	isomer	A compound with the same atomic composition and molecular weight as another compound but differing in molecular structure and chemical or physical properties. For example, graphite (pencil lead) and diamond are isomers of carbon. Both are composed of pure carbon, but exhibit very different physical properties.
	isotope	A variation of an element that has the same atomic number of protons but a different weight because of the number of neutrons. Various isotopes of the same element may have different radioactive behaviors, some are highly unstable.
	Isotope (radiogenic)	Atoms of the same element that have the same number of protons, but different number of neutrons and that undergo spontaneous decay at a known rate; typically used in geochronology of sediments (e.g., 137Cs, 210Pb, 14C).
	Isotope (stable)	Atoms of the same element that have the same number of protons, but different number of neutrons and that do not undergo decay; often expressed as a ratio (e.g., 13C/12C, 18O/16O, 35Cl/34Cl, 2H/1H).
	isotropic	Having identical properties in all directions. Syn. Isotropy.