

ERB Acronym and Glossary – O

Acronym	Glossary	Definition
O	Oxygen	Can exist as a gas or dissolved in solution. Oxygen forms various inorganic compounds with metals as well as organic compounds with carbon, hydrogen, nitrogen and other elements. O ₂ (gas) is vital to life whereas O ₃ , ozone, can be harmful due to its ability to oxidize biological tissue, metals, organic compounds and other materials. See Ozone.
O & M, MC	Operations and Maintenance, Marine Corps	Operations and Maintenance, Marine Corps (O&M, MC) is an Department of the Navy economic budget line item to identify major funding requirements identified under categories; Base Operational funding and Real Property Maintenance funding.
O & M, N	Operations and Maintenance, Navy	Operations and Maintenance, Navy (O&M, N) is an Department of the Navy economic budget line item to identify major funding requirements identified under categories; Base Operational Funding and Real Property Maintenance funding.
O&M	Operation and Maintenance	1) Activities conducted after a Superfund site action is constructed to ensure that the action is effective. 2) Actions taken after construction to assure that facilities constructed to treat wastewater will be properly operated and maintained to achieve normative efficiency levels and prescribed effluent limitations in an optimum manner. 3) On-going asbestos management plan in a school or other public building, including regular inspections, various methods of maintaining asbestos in place, and removal when necessary.
O ₂	Oxygen Gas	Can exist as a gas or dissolved in solution. Oxygen forms various inorganic compounds with metals as well as organic compounds with carbon, hydrogen, nitrogen and other elements. O ₂ (gas) is vital to life whereas O ₃ , ozone, can be harmful due to its ability to oxidize biological tissue, metals, organic compounds and other materials. See Ozone.
O ₃	Ozone	Found in two layers of the atmosphere, the stratosphere and the troposphere. In the stratosphere (the atmospheric layer 7 to 10 miles or more above the earth's surface) ozone is a natural form of oxygen that provides a protective layer shielding the earth from ultraviolet radiation. In the troposphere (the layer extending up 7 to 10 miles from the earth's surface), ozone is a chemical oxidant and major component of photochemical smog. It can seriously impair the respiratory system and is one of the most widespread of all the criteria pollutants for which the Clean Air Act required EPA to set standards. Ozone in the troposphere is produced through complex chemical reactions of nitrogen oxides, which are among the primary pollutants emitted by combustion sources; hydrocarbons, released into the atmosphere through the combustion, handling and processing of petroleum products; and sunlight.
OASN(I&E)	Office of the Assistant	Office of the Assistance Secretary of the Navy,

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	Secretary of the Navy (Installations and Environment)	Installations and Environment, OASN (I&E) serves the Navy by the management of; real property and installations, safety and occupational health issues, environmental protection, planning and restoration and conservation of natural resources.
OD	Outside Diameter	Outside Diameter (OD) is the length of a straight line through the center of the object to its outside edges.
ODU	Old Dominion University	Old Dominion University(ODU) is located in Norfolk VA with a College of Engineering containing six Engineering and Technology Departments with curriculums serving Undergraduate, Masters and Doctorate Degrees.
ODUSD(ES)	Office of the Deputy Under Secretary of Defense, Environment and Security	The Office of the Deputy Under Secretary of Defense, Environment and Security (ODUSD (ES)) is responsible for oversight and policy guidance for all DOD Installation and Environmental Programs.
OERR	Office of Emergency and Remedial Response	The Office of Emergency and Remedial Response (OERR) is an EPA organization made up of two central programs; Superfund and Oil Spill Program.
OESO	Ordnance Environmental Support Office	The Ordnance Environmental Support Office (OESO), a NAVSEA Command, is the Navy's environmental focal point for the storage, use, destruction, disposal requirements and options of all Navy Ordnance.
OGC	Office of the General Counsel	Office of General Council (OGC) provides advice to the Secretary and Deputy Secretary of Defense regarding all legal matters and services performed with, or involving DOD.
OHW	Other Hazardous Waste	Other Hazardous Waste characterizes terms include; Basic/Caustic, Explosive, flashpoints less than 140 degree F, Oxidizer, Peroxide-Former and poisons.
OMB	Office of Management and Budget	The Office of Management and Budget (OMB) is the executive agency that advises the President on the federal budget
OMM&O	Operations, Maintenance, Monitoring, and Optimization	Includes all the elements of O&M plus monitoring, including sampling and analysis and optimization, and the implementation of an ongoing evaluation to ensure that the remedial action is performed in the most effective and cost-effective manner.
ONR	Office of Naval Research	The Office of Naval Research coordinates, executes, and promotes the science and technology programs of the U.S. navy and Marine Corps through schools, universities, government laboratories, and nonprofit and for profit organizations.
OPA	Oil Pollution Act	The Oil Pollution Act (OPA) (1990) addresses oil pollution and establishes liability for discharge and substantial threat of a discharge of oil to U.S. navigable waters and shorelines.
OPM	Office of Personnel Management	The Office of Personnel Management (OPM) is a Federal Human Resource Agency who job is to build a Federal workforce for the Nation.
ORA	Oil Reclamation Area	Oil Reclamation Area (ORA) is a designated area to treat (recycle) waste oil products found in the waste stream to a beneficial use which may be for purposes other than the original use.
ORC	Oxygen Release Compound	Oxygen-Release Compound (ORC) is a process of

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		adding oxygen to the ground's subsurface to accelerate aerobic biodegradation and enhance the rate of natural attenuation of contaminants.
ORD	Office of Research and Development	The Office of Research and Development (ORD) is an EPA organization which conducts research on ways to prevent pollution, protect human health, and reduce risk.
ORP	Oxidation-Reduction Potential	The electric potential required to transfer electrons from one compound or element (the oxidant) to another compound or element (the reductant); used as a qualitative measure of the state of oxidation in water treatment systems.
OSC	On-Scene Coordinator	The predesignated EPA, Coast Guard, or Department of Defense official who coordinates and directs Superfund removal actions or Clean Water Act oil or hazardous spill response actions.
OSHA	Occupational Safety and Health Act and/or Administration	The Occupational Safety and Health Act (OSHA) (1970) is to assure safe and healthful working conditions for working people by authorizing enforcement of standards under the Act.
OSWER	Office of Solid Waste and Emergency Response	The Office of Solid Waste and Emergency Response (OSWER) primary responsibility for implementing the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA -- "Superfund").
OTI	Office of Technology Innovation	The EPA's Office of Technology Innovation website offers information about characterization and treatment technologies for the hazardous waste remediation community.
OU	Operable Unit	A discrete action that comprises an incremental step toward comprehensively addressing site problems; an action that manages, eliminates, or mitigates a release, threat of a release, or pathway of exposure. A typical operable unit would be removal of drums and tanks from the surface of a site. Can also include action at a collection of sites to be treated together, often because of similar cleanup requirements.
OVA	Organic Vapor Analyzer	Organic Vapor Analyzer is a field survey instrument typically equipped with a flame ionization detector for field measurement of total volatile compounds in air.
OWS	Oil/Water Separator	Engineered units that skim oil from water.

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	obligate aerobe	Microorganisms that can use only oxygen as an electron acceptor. Thus, the presence of molecular oxygen is a requirement for these microbes.
	obligate anaerobe	Microorganisms that grow only in the absence of oxygen; the presence of molecular oxygen either inhibits growth or kills the organism. For example, methanogens are very sensitive to oxygen and can live

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		only under strictly anaerobic conditions. Sulfate reducers, on the other hand, can tolerate exposure to oxygen, but cannot grow in its presence.
	occupational exposure	Reasonably anticipated skin, eye, mucous membrane, or parental contact with blood or other potentially infectious materials that results from the performance of an employee's duties.
	off-base contamination	Contaminants found to be migrating off the installation or coming onto the installation from off-base sources.
	off-gas	Gaseous effluent, possibly containing contaminant vapors, that leaves a process, typically from a point source during process operations.
	off-site facility	A hazardous waste treatment, storage or disposal area that is located away from the generating site.
	offstream uses	Water withdrawn from surface or groundwater sources for use at another place.
	oil fingerprinting	A method that identifies sources of oil and allows spills to be traced to their source.
	oil spill	An accidental or intentional discharge of oil which reaches bodies of water. Can be controlled by chemical dispersion, combustion, mechanical containment, and/or adsorption. Spills from tanks and pipelines can also occur away from water bodies, contaminating the soil, getting into sewer systems and threatening underground water sources.
	oncogenic	A substance that causes tumors, whether benign or malignant.
	one-hit model	Mathematical model based on the biological theory that a single "hit" of some minimum critical amount of a carcinogen at a cellular target such as DNA can initiate an irreversible series of events, eventually leading to a tumor.
	on-site	According to the NCP, the aerial extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of the response action.
	on-site facility	A hazardous waste treatment, storage or disposal area that is located on the generating site.
	open burning	Uncontrolled fires in an open dump.
	open dump	An uncovered site used for disposal of waste without environmental controls. See Dump.
	opportunistic species	1) Organisms able to exploit temporary habitats or conditions. 2) A species that has a life history characterized by short life span, short development time to maturity, high death rate, and many reproductive cycles per year.
	optimal	Most favorable or desirable subject to an imposed set of constraints.
	optimization	Optimization is the systematic evaluation and enhancement of remediation strategy, remediation system, and monitoring program to ensure remediation goals are achieved cost effectively.

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	organic	1) Referring to or derived from living organisms. 2) Pertaining or relating to a compound containing carbon, especially as an essential component; organic compounds usually have hydrogen bonded to the carbon atom.
	organic chemicals/compounds	Animal or plant-produced substances containing mainly carbon, hydrogen, nitrogen, and oxygen.
	organic matter	Carbonaceous waste contained in plant or animal matter and originating from domestic or industrial sources.
	organism	Any form of animal or plant life.
	osmosis	The passage of a liquid from a weak solution to a more concentrated solution across a semipermeable membrane that allows passage of the solvent (water) but not the dissolved solids.
	outfall	The place where effluent is discharged into receiving waters.
	overburden	Rock and soil cleared away before construction or mining.
	overdraft	The pumping of water from a groundwater basin or aquifer in excess of the supply flowing into the basin; results in a depletion or "mining" of the groundwater in the basin. See Mining of an Aquifer.
	oxidant/oxidizer	A substance containing oxygen that reacts chemically in air to produce a new substance; the primary ingredient of photochemical smog.
	oxidation	1) Loss of electrons from a compound, such as an organic contaminant. The oxidation can supply energy that microorganisms use for growth. Often (but not always), oxidation results in the addition of an oxygen atom and/or the loss of a hydrogen atom. 2) The addition of oxygen that breaks down organic waste or chemicals such as cyanides, phenols, and organic sulfur compounds in sewage by bacterial and chemical means.
	oxygen use rate	Rate of oxygen consumption due to biological and chemical action (used to determine respiration rate when the chemical oxygen demand is negligible).
	oxygenate	To treat, combine, or infuse with oxygen. Oxygenates are added to fuel to enhance combustion.
	oxygenated solvent	An organic solvent containing oxygen as part of the molecular structure. Alcohols and ketones are oxygenated compounds often used as paint solvents.
	ozonation	Application of ozone to water for disinfection or for taste and odor control.
	ozonator	A mechanical device that creates ozone.
	ozone depletion	Destruction of the stratospheric ozone layer which shields the earth from ultraviolet radiation harmful to life. This destruction of ozone is caused by the breakdown of certain chlorine and/or bromine containing compounds (chlorofluorocarbons or halons) when they reach the stratosphere and then catalytically destroy ozone molecules.

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	ozone hole	A thinning break in the stratospheric ozone layer. The designation of "ozone hole" is made when the detected amount of depletion exceeds fifty percent. Seasonal ozone holes have been observed over both the Antarctic region and the Arctic region and part of Canada and the extreme northeastern United States.
	ozone layer	The protective layer in the stratosphere, beginning about 7 to 10 miles above the ground, that absorbs some of the sun's ultraviolet rays, thereby reducing the amount of potentially harmful radiation reaching the earth's surface.