



Targamh
Art Of Translation

English ↔ Arabic ↔ French

Glossary of Environmental Health Terminology

معتم الحارث الضوي

Absorption

The process of taking in, as when a sponge takes up water. Chemicals can be absorbed through the skin into the bloodstream and then transported to other organs. Chemicals can also be absorbed into the bloodstream after breathing or swallowing.

Acute

Occurring over a short time, usually a few minutes or hours. An acute exposure can result in short term or long term health effects. An acute effect happens within a short time after exposure.

Ambient

Surrounding. Ambient air is usually outdoor air (as opposed to indoor air).

Analyte

A chemical for which a sample (such as water, air, blood, urine or other substance) is tested. For example, if the analyte is mercury, the laboratory test will determine the amount of mercury in the sample.

Aquifer

An underground source of water. This water may be contained in a layer of rock, sand or gravel.

Background level

A typical or average level of a chemical in the environment. Background often refers to naturally occurring or uncontaminated levels.

Bedrock

The solid rock underneath surface materials such as soils, sand or gravel.

Biological monitoring

Measuring chemicals in biological materials (blood, urine, breath, etc.) to estimate chemical exposure in humans, animals or plants.

Body burden

The total amount of a chemical in the body. Some chemicals build up in the body because they are stored in body organs like fat or bone or are eliminated very slowly.

Case control study

A study in which people with a disease (cases) are compared to people without the disease (controls) to see if chemical exposures or other factors were different for the two groups.

Central nervous system (CNS)

The part of the nervous system that includes the brain and the spinal cord.

CERCLA

Comprehensive Environmental Response, Compensation and Liability Act. See "Superfund."

Chronic

Occurring over a long period of time, several weeks, months or years.

Cohort study

A study of a group of people who were exposed to a chemical during a given time period. The cohort study is used to determine if there is an increased health risk related to the exposure.

Composite sample

A sample of water, soil or other medium which is made by combining samples from two or more locations.

Concentration

The amount of one substance dissolved or contained in a given amount of another. For example, sea water contains a higher concentration of salt than fresh water.

Contaminant

Any substance that enters a system (the environment, human body, food, etc.) where it is not normally found. Contaminants are usually referred to in a negative sense and include substances that spoil food, pollute the environment or cause other adverse effects.

Dermal

Referring to the skin. For example, dermal absorption means absorption through the skin.

Detection limit

The amount of substance that a laboratory can reliably measure in a sample of air, water, soil or other medium.

Dose

The amount of substance to which a person is exposed. Dose often takes body weight into account. For example, to receive equivalent doses of medicine, children are given smaller amounts than adults.

Epidemiology

The study of the occurrence and causes of health effects in human populations. An epidemiological study often compares two groups of people who are alike except for one factor such as exposure to a chemical or the presence of a health effect. The investigators try to determine if any factor is associated with the health effect.

Exposure

Contact with a chemical by swallowing, by breathing or by direct contact (such as through the skin or eyes). Exposure may be either short term (acute) or long term (chronic).

Exposure assessment

A process that estimates the amount of a chemical that enters or comes into contact with people. An exposure assessment also describes the length of time and the nature and size of a population exposed to a chemical.

Feasibility Study (FS)

A study that compares different ways to clean up an inactive hazardous waste site. The feasibility study (FS) recommends one or more actions to remediate the site (see remedial investigation).

Gradient

The change in a property over a certain distance. For example, lead can accumulate in the soil near a road due to automobile exhaust. As you move away from the road, the amount of lead in the soil decreases. This change in the lead content is called a gradient.

Health assessment

An ongoing process that begins when a hazardous substance is released. It includes a health interpretation of all the information known about the situation. The information may include some or all of the following: site investigation (environmental sampling and studies), exposure assessment, risk assessment, biological monitoring and health effects studies. The information is used to advise people how to prevent or reduce their exposures, to determine remedial actions or the need for additional studies.

Health effects studies

Studies of the health effects of exposure to hazardous substances at specific sites. They include, but are not limited to, epidemiological studies and exposure and disease registries.

Health monitoring

See "Health effects studies."

Health registry

A record of people exposed to a specific substance (such as a heavy metal), or displaying a specific health effect (such as cancer or a communicable disease). New York State maintains several such registries.

Ingestion

Swallowing (such as eating or drinking). Chemicals can get in or on food, drink, utensils, cigarettes or hands where they can be ingested. After ingestion, chemicals can be absorbed into the blood and distributed throughout the body.

Inhalation

Breathing. Exposure may occur from inhaling contaminants because they can be deposited in the lungs, taken into the blood or both.

Latency period

The period of time between exposure to a toxic chemical and the onset of health effects. Cancer caused by chemical exposure may have a latency period of 5 to 40 years.

Leaching

As water trickles through soils or landfills, chemicals in the soil may dissolve in the water. The water can then carry these chemicals through soil to pollute nearby groundwater or surface water.

Maximum Contaminant Level (MCL)

The highest (maximum) level of a contaminant allowed by federal or state regulations in a public water supply system.

Media

Soil, water, air, plants, animals or any other parts of the environment that can contain contaminants. Body tissues or fluids such as blood, bone or urine may also be media. The singular of "media" is "medium."

Metabolism

All the chemical reactions that enable the body to work. For example, food is metabolized (chemically changed) to supply the body with energy. Chemicals can be metabolized and made either more or less harmful by the body.

Morbidity

Illness or disease. Morbidity rate is the number of illnesses or cases of disease in a population.

National Priority List (NPL)

A listing of inactive hazardous waste sites that are eligible for federal funds for investigation and clean-up. The list is produced and updated annually by the U.S. Environmental Protection Agency (EPA).

Odor threshold

The lowest concentration of a chemical that can be smelled. Different chemicals have different odor thresholds. Also, some people can smell a chemical at lower concentrations than other people.

Organic

Originally coming from plants or animals, and made primarily of carbon and hydrogen. Organic chemicals are a class of chemical compounds.

Permeability

The property of permitting liquids or gases to pass through. A highly permeable soil, such as sand, allows a liquid to pass through quickly. Clay has a low permeability.

Persistence

The quality of remaining for a long period of time (such as in the environment or the body). Persistent chemicals (such as DDT and PCBs) are not easily broken down.

Phase I investigation

The initial study of a site to determine if hazardous wastes were improperly disposed of, and if so, to identify who might have done it. The study involves a search of records and interviews with site owners, employees and local residents to gather information on potential health and environmental risks.

Phase II investigation

A phase II study is done when a phase I study suggests that a significant threat to public health or the environment may exist, but more information is needed. Field investigation includes sampling water, soil and wastes to see if chemicals are leaving the site. These data are used to determine whether the site needs remediation and if it is eligible for the NPL.

Plume

An area of chemicals moving away from its source in a long band or column. A plume, for example, can be a column of smoke from a chimney or chemicals moving with groundwater.

Protocol

The detailed plan for conducting a scientific procedure. A protocol for measuring a chemical in soil, water or air describes the way in which samples should be collected and analyzed.

Quality assurance and quality control (QA/QC)

A system of procedures, checks and audits to judge the quality of measurements and reduce the uncertainty of environmental data.

Registry of Inactive Hazardous Waste Sites

The New York State Department of Environmental Conservation (DEC) maintains a list of inactive hazardous waste sites in New York State. When DEC finds that a site may contain hazardous waste, the site is listed in the registry and a Phase I investigation is planned. The status of the site is updated in the registry as investigations and remediation occur.

Remedial investigation (RI)

An in-depth study (including sampling of soil, water and waste) of an inactive hazardous waste site needing remediation to determine the nature and extent of contamination. The remedial investigation (RI) is usually combined with a feasibility study (FS).

Remediation

Correction or improvement of a problem, such as work that is done to clean up or stop the release of chemicals from a hazardous waste site. After investigation of a site, remedial work may include removing soil and/or drums, capping the site or collecting and treating the contaminated fluids.

Risk

Risk is the possibility of injury, disease or death. For example, for a person who has measles, the risk of death is one in one million.

Risk assessment

A process which estimates the likelihood that people who have been exposed to chemicals may have health effects. The four steps of a risk assessment are: hazard identification (Can this

substance damage health?); dose-response assessment (What dose causes what effect?); exposure assessment (How and how much do people contact it?); and risk characterization (combining the other three steps to estimate risk).

Risk management

The process of deciding how to reduce or eliminate possible health effects by considering the risk assessment, engineering factors (Can engineering procedures or equipment do the job, for how long and how well?) and social, economic and political concerns.

Route of exposure

The way in which a person may contact a chemical substance. For example, drinking (ingestion) and bathing (skin contact) are two different routes of exposure to contaminants that may be found in water. See [Exposure](#) س.

Safe

Free from harm or risk. Any exposure to a chemical has some risk. Although the risk may be very small, no exposure is safe or free from risk.

Site inspection

A Department of Health visit to a hazardous waste site to evaluate the likelihood of human exposure to toxic chemicals, and to do a preliminary health assessment. See [Health assessment](#) س.

Solubility

The capacity of a substance to be dissolved by a liquid, usually water. A highly water-soluble compound such as table salt is easily dissolved in water. Motor oil is only very slightly soluble in water.

Superfund (federal and state)

The federal and state programs to investigate and clean up inactive hazardous waste sites. The federal program gives the U.S. Environmental Protection Agency the funding and authority to investigate, rank and conduct or supervise clean-up of sites on the National Priority List. New York State [superfund](#) program gives the Department of Environmental Conservation the same authority to deal with sites that do not qualify for the federal superfund list.

Target organ

An organ (such as the liver or kidney) that is specifically affected by a toxic chemical.

Volatile organic compound (VOC)

An organic chemical that evaporates easily. Petroleum products such as kerosene, gasoline and mineral spirits contain VOCs. Chlorinated solvents such as those used by dry cleaners or contained in paint strippers are also VOCs. See [organic](#) س and [volatility](#) س.

Volatility

A measure of how quickly a substance evaporates at ordinary temperatures. The air concentration of a highly volatile chemical can increase quickly in a closed room.

Agencies

ACGIH	See "American Conference of Governmental Industrial Hygienists."
Ag & Mkts	See "New York State Department of Agriculture and Markets"
AG's Office	Attorney General's Office. See "New York State Department of Law."
American Conference of Governmental Industrial Hygienists (ACGIH)	ACGIH is a professional society of government workers and educators who work to promote occupational safety and health. The organization publishes recommendations on ventilation, air sampling and air concentration guidelines (threshold limit values or TLVS) designed to control exposure of workers to chemicals in the workplace.
Agency for Toxic Substances and Disease Registry (ATSDR)	ATSDR is part of the U.S. Department of Health and Human Services. As mandated by the federal superfund law, the agency assesses health risks from hazardous waste sites on the National Priority List. ATSDR determines if additional health studies are needed at these sites, provides health advisories and publishes toxicological profiles on chemicals found in hazardous waste sites. ATSDR also maintains disease registries to record reported cases of health effects such as cancer or birth defects.
Attorney General's Office	See "New York State Department of Law."
ATSDR	See "Agency for Toxic Substances and Disease Registry."
CDC	See "Centers for Disease Control."
Centers for Disease Control (CDC)	The CDC, part of the U.S. Department of Health and Human Services, provides federal leadership in the prevention and control of diseases. The CDC includes many programs that conduct research and provide information on public health issues such as occupational health, AIDS, cancer and other diseases.
Consumer Product Safety Commission (CPSC)	The CPSC, a federal commission, protects the public from injury caused by consumer products. The CPSC evaluates products, investigates the causes of product-related injuries and issues and enforces safety standards. For example, the CPSC has banned aerosol products containing chlorofluorocarbons and certain products containing asbestos. The CPSC also regulates the lead content of paints.
CPSC	See "Consumer Product Safety Commission."
DEC	See "New York State Department of Environmental Conservation."
DHHS	See "U.S. Department of Health and Human Services."

DOE	See "U.S. Department of Energy."
DOH	See "New York State Department of Health."
DOL	See "New York State Department of Labor or <>
ENCON	See "New York State Department of Environmental Conservation."
EPA	See "U.S. Environmental Protection Agency." FDA See "U.S. Food and Drug Administration." IARC See "International Agency for Research on Cancer."
International Agency for Research on Cancer (IARC)	IARC, part of the World Health Organization, is an international organization that evaluates the human cancer risk from chemical exposure. IARC evaluates scientific studies on chemicals and publishes critical reviews on the cancer risks of these substances. IARC also identifies further research that is needed to evaluate the cancer- causing ability of some chemicals.
NAS	See "National Academy of Sciences."
National Academy of Sciences (NAS)	NAS is a private, nonprofit corporation established by Congress to investigate and report on science and technology at the request of the federal government. The National Research Council (NRC) is a part of the NAS and has reported on public health problems such as chemical contamination of drinking water.
National Institute for occupational Safety and Health (NIOSH)	NIOSH, part of the Centers for Disease Control, conducts research on worker safety and health and recommends standards for worker protection to OSHA. For example, NIOSH recommends guidelines for workplace exposure to hazardous substances and has published criteria documents on many chemicals.
National Institutes of Health (NIH)	NIH, part of the U.S. Department of Health and Human Services, conducts scientific research into the causes, prevention and cure of diseases. For example, the National Cancer Institute (part of NIH) studies how some environmental chemicals cause cancer. Many other diseases, some related to chemical exposure, are also under study at NIH.
National Research Council	See "National Academy of Sciences."
National Toxicology Program (NTP)	NTP, part of the U.S. Department of Health and Human Services (DHHS), coordinates the toxicology research being conducted within DHHS. The NTP selects priority chemicals for study, develops necessary testing procedures and coordinates the research done by programs in three DHHS agencies: NIH, FDA and CDC.
New York State Department of Agriculture	The Department of Agriculture and Markets is the state agency that carries out programs to ensure a safe and affordable food supply for (NYS Ag & Mkts or consumers. For example, the A&M) department licenses and inspects grocery

and Markets	and other food stores, regulates the state's dairy industry and monitors and enforces standards for pesticide residues in agricultural produce.
New York State Department of Environmental Conservation (NYSDEC, DEC or ENCON)	DEC is the state agency that carries out and enforces laws to protect the environment in New York State. DEC administers programs that regulate discharges into air and water, the disposal of solid and hazardous waste, protection of natural resources and wildlife management.
New York State Department of Health (NYSDOH or DOH)	DOH is the state agency responsible for protecting public health in New York State. DOH records the occurrence of birth defects, cancer, AIDS and other diseases, and conducts research into the causes and prevention of these diseases. DOH also carries out programs to prevent or reduce disease or harmful health effects. Some of these programs provide services such as nutritional programs for mothers and infants; other programs regulate hospitals, home health care and public water supplies. Many programs provide information on topics such as chemical exposure and radiation.
New York State Department of Labor (.NYS DOL or DOL)	DOL is the state agency that carries out and enforces laws to protect the safety and health of workers in New York State. DOL enforces public employee safety and health regulations, carries out inspections and provides consultation to employers to help them comply with health and safety laws. For example, DOL licenses asbestos contractors and inspects and enforces asbestos abatement projects.
New York State Department of Law (DOL or AG's Office)	The Department of Law, headed by the Attorney General (AG), takes legal action on behalf of New York State citizens. The AG's office investigates and prosecutes those who violate consumer protection, public health or environmental laws. It also conducts environmental crime investigations, sues for clean up of toxic sites and works to improve state and federal environmental laws.
New York State Energy Office	The Energy Office administers state energy research, policy, planning and standards. The Energy Office provides information to the public on energy conservation, indoor air quality, building ventilation, radon testing and radon reduction methods.
NIH	See " National Institutes of Health. "
NIOSH	See " National Institute for Occupational Safety and Health. "
NRC	See " National Academy of Sciences. "
NYS Ag Mkts	See " New York State Department of Agriculture and Markets. "
NYS A&M	See " New York State Department of Agriculture and Markets. "

NYSDEC	See "New York State Department of Environmental Conservation."
NYS DOH	See "New York State Department of Health."
NYS DOL	See "New York State Department of Labor or <>"
Occupational Safety and Health Administration (OSHA)	OSHA, part of the U.S. Department of Labor, enforces federal laws that protect worker safety and health, such as maintaining standards for occupational exposure to chemicals, training employees and keeping records of chemical exposures.
OSHA	See "Occupational Safety and Health Administration."
U.S. Department of Energy (DOE)	The DOE administers federal energy research, development, regulation and policy. DOE is in charge of federal research on the storage and disposal of radioactive waste and can provide information to the public on radioactive waste disposal and management.
U.S. Department of Health and Human Services (DHHS)	DHHS carries out federal health and social programs such as social security, human development, family support, health care financing and public health. The Public Health Service, a part of DHHS, includes agencies such as the Centers for Disease Control, the Agency for Toxic Substances and Disease Registry, the Food and Drug Administration and the National Institutes of Health.
U.S. Environmental Protection Agency (EPA)	The EPA enforces federal environmental protection laws. It registers and regulates pesticides, enforces laws covering outdoor air and drinking water quality and regulates the disposal of hazardous and solid wastes.
U.S. Food and Drug Administration (FDA)	The FDA, part of the U.S. Department of Health and Human Services, carries out and enforces laws that protect the quality and safety of foods, food additives, cosmetics and medical drugs and devices. For example, the FDA monitors the quality of foods and drugs through product testing, and reviews food and drug ingredients, including pesticide residues, to determine if they pose health hazards.
U.S. Geological Survey (USGS)	The USGS, part of the U.S. Department of the Interior, identifies the nation's land, water, mineral and energy resources. USGS conducts research, prepares topographic maps and collects and interprets data on mineral and water resources.
USGS	See "United States Geological Survey."
WHO	See "World Health Organization."
World Health Organization	WHO, an agency of the United Nations, carries out public and environmental

(WHO)

health programs throughout the world. For example, WHO trains health personnel and assists countries to provide primary health care, prevent communicable diseases and combat malnutrition. WHO has developed international guidelines for pesticide residues in foods and chemicals in drinking water.