

# Glossary

**Action Plan:** A statement or statements in a management program of what will be done to achieve a management aim, objective or target. The action plan would include what was to be done, how, by whom, when (or how often) and for how long.

**Air pollutants:** Substances or energy (e.g. waste heat) released into the atmosphere in such quantities and of such duration likely to cause harm to plants or animals (including people); damage to materials (e.g. fabrics) and structures (e.g. buildings); changes in weather and climate; or interference with the enjoyment of life or property (e.g. as a result of odours or noise). Air pollutants include; nitrogen oxides, sulphur oxides, ozone, smoke, suspended particulates, carbon monoxide, carbon dioxide, polyaromatic hydrocarbons, benzene, volatile organic compounds, poly-chlorinated biphenyls, dioxins, chlorine, fluorides, halogen compounds, methane, asbestos, glass and mineral fibre particulates and toxic volatile metals and their compounds (lead, cadmium, arsenic, nickel and mercury).

**Air quality standard:** The concentration of a pollutant over a specified period above which adverse effects on health or the environment may occur, and which should not be exceeded. Health-based standards (often called primary standards) are usually legally enforceable; environment-based standards (often called secondary standards) may be long-term objectives that are not legally binding.

**Cargo Handling:** Environmental risks may result from spillages or incidents during the handling of cargo. The nature of the environmental risk is dependent on the cargo handled. Cargo types include: Aggregates: For example, sand (coarse & fine), gravel and crushed rock often used in the construction industry; Grains: For

example wheat, flour, soya, oil seeds and other cereals; Minerals: For example, cement, sulphur, potash, alumina, nitrates, and phosphates. These have been separated from unrefined mineral ores; Ores: For example, pyrites, bauxite and iron ore; Other Dry Bulk: A general category for all bulk that does not fall into the above sections, for example, sugar and fertilizers; Perishable Goods: Any cargo that is liable to decay or deteriorate in transport or storage if conditions are not strictly controlled; for example, foodstuffs such as fruit, bananas, vegetables; Wood (forest) products: For example, paper, newsprint, woodchip, woodpulp, pallets.

**Cargo Storage:** On site storage activities within the Port area. Different types of storage facility may result if a variety of environmental risks as a result on accidental spillages, runoff or drainage. Alternatively, incompatible chemicals may result in health & safety risks if stored in the same vicinity.

**Chief Executive:** the person with overall responsibility for the efficient running of the Port Authority, etc..

**Climate:** (at a given place) The totality of the weather experienced; not simply average weather since climate includes extremes or deviations from the mean state of the atmosphere, e.g. fogs, frosts, and storms; the behaviour of the atmosphere over periods of weeks, months, seasons, years and decades, i.e. the integration of weather over long periods; usually characterised using long-term records, e.g. 30 years.

**Coastal defence:** Structures to protect the coastline from storm damage and erosion by the sea. These defences also include mudflat, salt marsh and sand dune systems.

**Coastal Engineering:** Activities and structures related to the operation of the Port (for examples docks and quaysides, piers and breakwaters), and its immediate surroundings (for example tidal barrages, coastal and flood defence).

**Conservation Designations:** Protected areas of unique or rare species, communities and habitats. For example, RAMSAR wetlands, Biosphere reserves, Special Protection Areas, and Special Areas of Conservation. There are numerous examples of National designations. Some sites may be voluntary protected areas of importance to the local community.

**Continual improvement:** Process of enhancing the environmental management system, with the purpose of achieving improvements in overall environmental performance, not necessarily in all areas of activity simultaneously, resulting from continuous efforts to improve in line with the Port Authority's environmental policy.

**Designated waters:** Water bodies or sections of a river designated by the relevant water authority under one or more EU Directives, e.g. a river with an important salmon fisher could be designated under the Fisheries Directive and would have to comply with the water quality standards set in this directive.

**Emergency situations:** can arise for many reasons, for example fire, explosion, collision, flooding, spillage, leakage and uncontrolled development in the course of an operation or activity. An emergency response plan should identify potential emergencies, assess their likely effects and determine procedures to be followed for all emergencies.

**Emission standard:** The maximum amount or concentration of a pollutant allowed to be emitted from a specified source.

**Emissions inventory:** List of the location and type of pollutant sources in the area

under study, together with the amount of pollutant discharged in a specified period.

**Environment:** Surroundings in which the Port operates, including air, water, land, natural resources, flora, fauna, humans, and their interrelation. The environment in this context extends from within the Port to the global system or biosphere.

**Environmental aspect:** Element of the Port Authority's activities, products or services which can interact with the environment.

**Environmental assessment:** A process that assesses and predicts the environmental impact of a proposal for example, a road scheme or new development - that is subject to a decision by a competent national authority. It identifies alternatives and presents its findings in such a way that decision-makers can be informed of what needs to be done. Environmental assessment is equally applicable to policy proposals.

**Environmental effect:** Any direct or indirect impingement to the activities, products and services of the Port Authority upon the environment, whether adverse or beneficial. A Direct effect occurs when an activity affects the environment directly, for example; oiling of seabirds after an oil spill. An Indirect effect may occur when the effect of an activity on the environment occurs at a distance (in time or space) from the source of the effect. For example; the use of pesticides in agriculture that eventually accumulate in the tissues of seabirds and affect their reproduction and population size.

**Environmental effects evaluation:** A documented evaluation of the environmental significance of the effects of the Port Authority's activities, products and services (existing and planned) upon the environment. An assessment to decide whether the environmental effects are significant or important and may need to be managed. This evaluation may examine the scale, location, type, duration and

frequency of an effect. For example; an occasional oil spill within an enclosed dock may not be as significant as frequent small oil discharges in the vicinity of a bathing area.

**Environmental aspects inventory:** A list of the significant Environmental aspects, known or suspected, of the activities, products and services of the Port Authority upon the environment.

**Environmental audit:** A systematic evaluation to determine whether or not the environmental management system and environmental performance comply with planned arrangements, and whether or not the system is implemented effectively, and is suitable to fulfil the Port Authority's environmental policy.

**Environmental factors:** All environmental variables that are known to affect organisms; can be divided into abiotic factors, which involve physical and chemical environmental components (e.g. water, temperature, light, oxygen, nutrients, pH and toxins), and biotic factors, which involve interactions between organisms (e.g. competition, predation, parasitism and mutually beneficial relationships such as pollination).

**Environmental impact:** Any change to the environment, whether adverse or beneficial, wholly or partially resulting from the Port Authority's activities, products or services. (See Environmental effect).

**Environmental Issue:** A generic term for all natural and commercial resources, environmental impact or effects and user/operator conflicts relevant to management.

**Environmental management:** Management that enables the Port Authority to establish an environmental policy and objectives comply with them and demonstrate them to the outside world. The policy must be relevant to the Port Authority's activities, products, services and their environmental effects. It should

also be understood, implemented and maintained at all staff levels.

**Environmental management manual:** The documentation describing the procedures for implementing the Port Authority's environmental programme.

**Environmental management plan:** see *environmental management program*.

**Environmental management program:** A description of the company's specific objectives and activities to ensure protection of the environment at a given site, including a description of the measures taken or envisaged to achieve such objectives and where appropriate the deadlines set for implementation of such measures.

**Environmental management review:** The formal evaluation by management of the status and adequacy of systems and procedures in relation to the environmental issues, policy and regulations as well as new objectives resulting from changing circumstances.

**Environmental management system:** This covers the organisational structure, responsibilities, ways and means of implementing environmental management. It ensures that the activities of the Port Authority, and their effects, conform with environmental policy and associated objectives and targets. It includes the preparation and implementation of a documented system of procedures and instructions providing the basis for a programme of continuous environmental improvement.

**Environmental management system audit:** Systematic and documented verification process to objectively obtain and evaluate evidence to determine whether a Port Authority's environmental management system conforms to the environmental management system audit criteria set by the Port Authority, and communication of the results of this process management.

**Environmental performance:** Measurable outputs of the environmental management system, relating to the Port Authority's control of the impacts of its activities, products or services on the environment, based on its environmental policy, objectives and targets.

**Environmental policy:** Statement by the Port Authority of its intentions and principles in relation to its overall environmental performance which provides a framework for action and for the setting of its environmental objectives and targets.

**Environmental program:** A description of the means of achieving environmental objectives and targets.

**Environmental review:** an initial comprehensive analysis of the environmental issues, impact and performance related to activities in the port area.

**Environmental statement:** 1) shall mean a statement prepared by the company in line with requirements of the EMAS Regulations. The statement should address the activities at the site, significant environmental issues and effects, the environmental policy, objectives, environmental program, emissions data, review procedure and specify the date of the next environmental statement. 2) An environmental impact assessment report.

**Fisheries & Aquaculture:** Traditional fishing fleets and fish processing activities based within the Port or its surrounding area. For example: Aquaculture: Shrimp ponds, freshwater fish farms and freshwater mussel farms; Mariculture: Salmon and sea trout farms, mussel and oyster beds, and seaweed farming (for example kelps); Fixed Net Fishing: The use of nets fixed to the shore, for example gill nets, herring nets and tangle netting; Seaweed collection: Collection of edible species of seaweed or for use as fertilizer.

**Flood defence:** Structures designed to avoid or prevent flooding of the land by river flooding and tidal or storm surges. These defences also include mudflat, salt marsh and sand dune systems.

**General Cargo Vessel:** Multiple deck ship designed to carry goods shipped unpacked or packed in cartons, crates, bags or bales but not shipped in bulk.

**Habitat:** A place where an organism lives; a type of environment inhabited by particular species and/or communities; often characterised by dominant plant forms, physical characters or a combination of these, e.g. forest, grassland, marsh and stream habitats.

**Hazardous/ Dangerous Cargo:** Storage of hazardous & dangerous cargo may result in specific environmental risks dependant on the physical- chemical characteristics of the chemicals stored; the method of storage, the location, size and management of the storage site. Dangerous cargo, their properties, stowage and storage requirements are given in the 'International Maritime Dangerous Goods Code' (IMDG) published by the IMO.

**Initial environmental review:** A report containing a brief, preliminary evaluation of the types of impacts that would result from an action. Often used as a screening process to assess whether or not proposals should undergo full scale Environmental Impact Assessment.

**Interested parties:** Those with an interest in the environmental effects of the Port Authority's activities, products and services. These include those exercising statutory environmental control over the Port Authority, local residents, the Port Authority's investors, insurers and workforce, customers and consumers, environmental interest groups and the general public.

**Marine Engineering:** Activities within the port related to the development, maintenance and disposal of MARINE

structures, including: windfarms, turbines, oil and gas rigs, platforms, pipelines and cables, and support of ocean mining and exploration.

**Master Plan:** It is an organized set of decisions made by one person or a team of people about how to develop a long term and complex projects in the future. The basis of this plan are the ideas established through the strategic planning.

**Monitoring:** Activity involving repeated observation, according to a pre-determined schedule, of one or more elements of the environment to detect their characteristics (status and trends).

**Natural resources:** Features that have ecological, economic, recreational, educational, or aesthetic value.

**Objective:** Overall environmental goal, arising from the environmental policy and significant environmental aspects, that the Port Authority sets itself to achieve, and which is quantified where practicable. An explicit statement of what the Port Authority hopes to achieve e.g. to improve air quality in the port area, to reduce the environmental impact of ship waste.

**Operational control:** Operational control consists of planned responsibilities, training needs, resources, control measures and information and further, if necessary, instructions, procedures and monitoring. This is to ensure that the activities are carried out in line with legal and other requirements.

**Organisation:** Any organised body or establishment, for example, a business, company, government department, charity or society. For bodies or establishments with more than one site, a single site may be defined as an organisation.

**Performance criteria:** The condition or value of each parameter or attribute used to judge the achievement of an objective. The value or condition of a parameter, attribute or environmental quality used to judge performance. Alternatively the condition, status or value of a parameter or attribute

at which management action is initiated or required.

**Performance indicator:** An (environmental) performance indicator may be defined as:

- A measure of the Port Authority's progress in achieving compliance with legislation and improving environmental quality through the actions of its environmental management programme.
- Information that demonstrates over time the effectiveness of the port's environmental management programme in attaining high grades of environmental quality standards through continuous improvement.

**PERS (Port Environmental Review System):** Tool designed to assist ports to implement the Environmental Code of Practice (2003) of the ESPO (European Sea Ports Organization). Through the PERS Port Managers can learn how to carry out an Initial Environmental Review, prepare an Environmental Report, and voluntarily apply for the optional (and independently reviewed) Certificate of Verification. It can be regarded as a first major step towards the implementation of a full Environmental Management System for ports (e.g. under the requirements of ISO 14001 standard). (See Environmental review).

**“Port development (land)” aspects:** The lack of space and the increasing number of industries located in the Port area create the necessity of expansion towards the surroundings. This occupation of the terrestrial space may generate several consequences:

- Destruction of some natural areas close to the Port (e.g. wetlands, dune systems).
- Disturbance of the flora and fauna which live in the area affected for the new expansion.
- Relocation of some installations which can generate social conflicts.

- Landscape impact due to the very existence of the port. For instance, the port infrastructure, the land-based traffic and the lighting used during night operations give the Port the appearance of a busy industrialized district.

**“Port development (sea)” aspects:** The increase in the maritime transport around the world has made the Ports expand (e.g. new docks, new facilities) in order to provide the maximum surface to the port users. Basically, this means use of space on the sea which may cause different effects:

- Alteration of the coastal hydrography causing:
  - Changes in currents.
  - Water stagnation which can lead to eutrophication processes and waste accumulation.
  - Erosion or accrual of some coastal areas.
- Interaction with the marine ecosystems, disturbing the benthic habitat, increasing turbidity over a wide area and re-suspending contaminants.

**Prevention of pollution:** Use of processes, practices, materials, products or energy that avoid or reduce the creation of pollution and waste.

**Primary producers:** Green plants (including phytoplankton) that utilise light energy to synthesise organic compounds (by photosynthesis) and form the basis of food chains, because they produce more organic material than they require.

**Private company:** a limited company that does not issue shares for public subscription and whose owners do not enjoy an unrestricted right to transfer their shareholdings.

**Public Company:** a limited company whose shares may be purchased by the public and traded freely on the open market and whose share capital is not less than a statutory minimum.

**Recreational Use:** The Port area and its surroundings may attract a variety of recreational activities that may need to be considered in the management of the Port and its environment. For example; bird watching, wildfowling, horse riding, bathing, angling, power boating, jet skiing, surfing and SCUBA diving.

**Recycling:** The process by which waste or used materials are put back into productive use. Efficiently operate recycling systems can reduce pollution problems caused by waste disposal. In addition, some recycling schemes may provide alternative sources of energy, and all help conserve energy and natural resources.

**Renewable resources:** Resources that can be harvested or extracted regularly without diminishing its yield. All biological resources are renewable if used sustainably, as are some physical resources such as power derived from wind, water flow or waves. In many cases, however, potentially renewable biological resources are harvested in excess of their capacity to regenerate. This leads to declines in yield over time. In agriculture, this decline may be compensated by the use of fertilisers and pesticides which are not in themselves renewable resources, and which through their use cause other problems.

**Resource:** Anything that is used directly by people. A renewable resource can renew itself or be renewed at a constant level. A non-renewable resource is one whose consumption necessarily involves its depletion.

**Risk analysis (Risk assessment, RA):** Technique used to determine the likelihood or chance of hazardous events occurring (such as release of a certain quantity of a toxic gas) and the likely consequences. Originally developed for use in nuclear and chemical industry where certain possible events, of low probability, could have extremely serious results. Attempts are being made to use concepts from probabilistic risk analysis to characterise environmental impacts, worse occurrence

and nature are not easy to predict with any degree of accuracy.

**Senior Management:** the most senior staff of an organization or business, including the heads of various divisions or departments led by the chief executive. In this case the organisation is the Port Authority. This term is also known as a Top Management.

**Shipping & Navigation:** Those activities and structures required for the safe passage of shipping into, within and out of the Port and its harbour(s).

**Significant environmental aspect:** A significant aspect is an aspect with a significant impact on the environment.. Screening for significance: can be based on legal requirements, policy statements and risk analysis of the impact of the aspect. If an impact is regarded to be significant (e.g. opinion of stakeholders), the aspect has to be regarded as significant.

**Stakeholders:** Individual or group concerned with or affected by the environmental performance of an organisation, e.g. local community, government, employees, clients, authorities.

**Strategic planning:** It is a management tool, period. As with any management tool, it is used for one purpose only: to help an organization do a better job - to focus its energy, to ensure that members of the organization are working toward the same goals, to assess and adjust the organization's direction in response to a changing environment. In short, strategic planning is a disciplined effort to produce fundamental decisions and actions that shape and guide what an organization is, what it does, and why it does it, with a focus on the future.

**Targets:** A detailed statement, usually quantified within a defined time frame, of measures by which it can be confirmed that specified objectives have been met. E.g.: objective = to improve the quality of harbour seawater near public beach; target = compliance with EU Directive on Bathing Water Quality Standard, OR, compliance with water quality standards by the year 2005.

**Terminals:** Area set aside for the transshipment of specific items. This includes the dock, berthing facilities, cargo handling facilities, storage and transport infrastructure required for safe operation of the terminal.

**Waste Disposal, Effluent Discharges & Emissions:** Activities that may have a direct effect on water, air and soil quality of the Port and its surroundings. For example, industrial emissions, industrial effluent, runoff, ship discharges, ship and vehicle exhausts, thermal discharges, sewage and marine litter.

**Waste Reception Facilities:** Include reception facilities for shipboard waste, for example, chemical wastes, oily wastes, oily bilge water, ballast water, tanker & hull washings, shipboard sewage, and garbage whether they are fixed, mobile or contractor operated.

**Weather:** (in a given place) The condition of the atmosphere at a given time with respect to the various elements, e.g. temperature, sunshine, wind, precipitation; refers to the behaviour of the atmosphere over a few hours or at most over a few days (see climate)