

Glossary of HSE terms

Report No. 6.52/244
September 1999



International
Association
of Oil & Gas
Producers



Global experience

The International Association of Oil & Gas Producers (formerly the E&P Forum) has access to a wealth of technical knowledge and experience with its members operating around the world in many different terrains. We collate and distil this valuable knowledge for the industry to use as guidelines for good practice by individual members.

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The oil and gas exploration and production industry recognises the need to develop consistent databases and records in certain fields. The OGP's members are encouraged to use the guidelines as a starting point for their operations or to supplement their own policies and regulations which may apply locally.

Internationally recognised source of industry information

Many of our guidelines have been recognised and used by international authorities and safety and environmental bodies. Requests come from governments and non-government organisations around the world as well as from non-member companies.

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The Glossary was assembled for OGP and IAGC by Mike Covil of IAGC.

It has been reviewed and approved for use for the purposes set out in the Introduction by the Safety Health and Personnel Competence (of OGP) and by the Board of Directors of IAGC.

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Introduction

This Glossary provides a reference to authors of OGP and IAGC HSE documentation, such that HSE documentation issued by these two associations use consistent terminology. It is not the intention to force upon the Industry a definitive set of definitions. It is recognised that each company may have evolved definitions of its own.

This Glossary was generated initially by extracting definitions from OGP and IAGC HSE documents. Where relevant the origins of such definitions have been given. The Glossary was circulated amongst members of the OGP and IAGC on three occasions. This provided additional definitions and suggestions for other HSE Terms to be included.

The present Glossary includes the definition which was selected by members votes as the most appropriate and acceptable. Where more than one OGP/IAGC definition is already in existence, they have been included, and ranked according to the votes they received. The first definition in these cases is the preferred one.

† Taken from The Dictionary of terms used in the Safety Profession, with the kind permission of The American Society of Safety Engineers.

Glossary of HSE terms

Accident

Any event which results in injury, and/or damage and/or loss. (IAGC Consensus 1993).

Note: OGP '*Guidelines for the development and application of health safety and environmental management systems*' 1994, uses 'incident' as the preferred term and does not use 'accident'.

Accountability

The ultimate responsibility for an area of authority defined by the individual's *Job Description*, and will include authority delegated to a subordinate albeit temporary or permanent.

Air emissions

Waste gases, vapours and small particles that are released into the air .

Audit

- 1 A systematic, independent evaluation to determine whether or not the health, safety and environmental management system and its operation comply with planned arrangements, and whether or not the system is implemented effectively, and is suitable to fulfil the company's health, safety and environmental policy and objectives. (based on OGP report 6.36/210, 1994 '*Guidelines for the development and application of health, safety and environmental management systems*').
- 2 The examination of the whole system to assess how it has been used over a period, and so make sure it has operated as intended. (OGP report 6.29/189, 1993 '*Guidelines on permit to work (PTW) systems*').

†Blood Alcohol Concentration (BAC)

The relative proportion of ethyl alcohol within the blood, based upon the number of grams of alcohol per 100 millilitres of blood, and often expressed as a percentage

†CardioPulmonary Resuscitation (CPR)

A combination of artificial respiration (mouth to mouth) and artificial circulation (external cardiac compression).

Competence

The ability to perform a particular job in compliance with performance standards. (OGP report 6.34/206, 1994 '*Health safety & environmental schedules for marine geophysical operations*').

Contingency plan

A pre-established plan to mitigate an unusual situation which has the potential for harm, which incorporates the best use of local as well as remote facilities and resources.

Contract

A system of operating between two or more parties.

Danger

The risk of injury.

Dangerous occurrence

Readily identifiable event (see *Accident* and *Near miss*) with potential to cause an accident or disease to persons at work and the public or of significant actual or potential material damage.

Emergency plan

See *Contingency plan*

Employee

Any individual who carries out duties or actions specified by an employer for which the individual receives remuneration from the employer .

Environment

The surroundings and conditions in which a company or individual operates or which it may affect, including living systems (human and other) therein. (OGP report 6.36/210, 1994 'Guidelines for the development and application of health, safety and environmental management systems').

Environmental Impact Assessment (EIA)

- 1 Part of project management concerned with identifying through a formal written technical evaluation the likely impact (positive and negative) of a proposed development or activity on the natural and man-made environment. A process whereby the assessment is used in reaching a consensus on acceptable levels of change, defining the means by which agreed standards of operation and procedure will be achieved and establishing management procedures to ensure these objectives are achieved and maintained. (OGP report 2.40/135, 1986 'E&P Forum view of environmental impact assessment').

- 2 A formal, written, technical evaluation of potential effects on the environment (atmosphere, water, land, plants and animals) of a particular event or activity. (OGP report 2.58/196, 1993 'Exploration and production waste management guidelines').

Ergonomics

The science of studying people at work, and designing tasks, jobs, tools, equipment, facilities, and the work environment, so that people can be safe, healthy, effective, efficient, productive and comfortable.

Exposure

The measurement of time during which the subject is at *risk* from a *hazard*.

Fatal Accident Frequency Rate (FAFR)

The number of *fatalities* per 100 million man *hours worked*.

$$\text{i.e. FAFR} = \frac{\text{Number of } \textit{fatalities}}{\text{Man } \textit{hours worked}} \times 100,000,000$$

(OGP report 6.4/121, 1985 'E&P Forum accident reporting system').

Fatality

Death due to work related *injury* or illness.

Fatality rate (not now used)

The number of *fatalities* per 1,000 *employees*.

$$\text{i.e. FR} = \frac{\text{Number of } \textit{fatalities}}{\text{Total number of } \textit{employees}} \times 1,000$$

(OGP report 6.4/121, 1985 'E&P Forum Accident Reporting System').

First aid

The skilled application of accepted principles of treatment on the occurrence of an *accident* or in the case of sudden illness, using facilities and materials available at the time.

- to sustain life;
- to prevent deterioration in an existing condition; and
- to promote recovery.

The most important areas of first aid treatment are:

- restoration of breathing (resuscitation);
- control of bleeding; and
- prevention of collapse

First Aid Case (FAC)

A work related minor *injury* or illness which can be treated by a first aider or equivalent and does not require a professional physician or paramedic.

†Flash point

The lowest temperature of a flammable liquid at which it gives off sufficient vapour to form an ignitable mixture with the air near the surface of the liquid or within the container used.

Generic hazard

A *hazard* which may be generally present throughout an operation or industry but which may have widely different levels of *risk*, depending on the specific site characteristics.

Greenhouse gases

Gases that alter the thermal properties of the atmosphere. The main greenhouse gases are considered to be water vapour, carbon dioxide, methane, nitrous oxide, chloroflouro carbons, halons and ozone.

Hand tools

Tools which are portable and are operated whilst being held.

Hazard

- 1 An object, physical effect, or condition with potential to harm people, property or the *environment*. (OGP report 6.40/217, 1994 'Generic hazard register').
- 2 The potential to cause harm, including ill health or *injury*, damage to property, plant, products or the *environment*; production losses or increased liabilities. (OGP report 6.36/210, 1994 'Guidelines for the development and application of health, safety and environmental management systems').
- 3 A source of *danger* which if not adequately controlled or if suitable precautions are not taken could create an unsafe condition. (OGP report 6.29/189, 1993 'Guidelines on permit to work systems')
- 4 The potential for adverse consequences to arise from the occurrence of an identified event affecting the safety of people, the *environment* or economic resources. (OGP report 11.1/98, 1984 'Applications and limitations of risk assessment in offshore exploration and production').

Hours worked

- 1 The hours that an *employee* is present at the work location.
- 2 The actual hours worked for onshore operations. For offshore workers a 12 hour day. (OGP report 6.5/301, 2000 'User guide for safety statistics reporting').

Housekeeping

Maintaining the working *environment* in a tidy manner so that, in particular, access and movement is not hindered.

HSE management system

The company structure, responsibilities, practices, procedures, processes and resources for implementing health, safety and environmental management. (OGP report 6.36/210, 1994 'Guidelines for the development and application of health, safety and environmental management systems').

HSE plan

A description of the means of achieving health, safety and environmental objectives. (OGP report 6.36/210, 1994 'Guidelines for the development and application of health, safety and environmental management systems').

HSE policy statement

Those documents which record the HSE *policy* of the organisation.

Incident

An event or chain of events which has caused or could have caused *injury*, illness and/or damage (loss) to assets, the *environment* or third parties. (OGP report 6.36/210, 1994 'Guidelines for the development and application of health, safety and environmental management systems').

Injury

Physical harm or damage to a person resulting from traumatic contact between the body of the person and an outside agency, or from exposure to environmental factors.

Injury frequency (not now used): see Lost Time Injury Frequency

The number of injuries per million man hours worked.

$$\text{IF} = \frac{\text{Number of } \textit{injuries}}{\text{Man } \textit{hours worked}} \times 1,000,000$$

(OGP report 6.4/121, 1985 'E&P Forum accident reporting system').

Injury rate

The number of injuries per 100 *employees*

$$\text{IR} = \frac{\text{Number of } \textit{injuries}}{\text{Total number of } \textit{employees}} \times 100$$

(OGP report 6.4/121, 1985 'E&P Forum accident reporting system').

Injury severity rate

The number of days lost per 1 million man hours worked.

$$\text{ISR} = \frac{\text{Number of days lost}}{\text{Man } \textit{hours worked}} \times 1,000,000$$

(OGP report 6.4/121, 1985 'E&P Forum accident reporting system').

Job description

A short document which sets out an *employee's* authority and responsibilities in the job, who he reports to, and who reports to him; what his duties are and the qualifications necessary to perform those duties.

Journey management

The planned movement of people and equipment from one place to another including communications, route, scheduled stops, *hazard* warnings, provisioning, breakdown and other *contingency*.

†Just cause

Good or fair reason(s) for discipline.

Line management

A documented system that clearly indicates the responsibilities and reporting structure throughout an organisation.

Lock out/tag out

A documented system of barriers and notices that prevents the accidental or inadvertent operation of equipment whilst it is being maintained or inspected.

Lost Time Injury (LTI):

Any work related *injury* or illness which prevents that person from doing any work the day after the *accident*. (IAGC Consensus 1993)

Lost Time Injury Frequency (LTIF): [see injury frequency]

The number of *LTI's* recorded for a group of workers, per million *hours worked* by that group.

Management

Those aspects of the overall management function (including planning) that develop, implement and maintain the HSE *policy* (based on OGP report 6.36/210, 1994 '*Guidelines for the Development and application of health, safety and environmental management systems*').

Material Safety Data Sheet (MSDS)

A sheet issued by a manufacturer of chemical substances that sets out the *hazards* likely to be encountered by those who come into contact with the substance. The sheet may also identify recovery procedures following adverse exposure.

Medevac

The evacuation for medical reasons from the work location to a hospital.

Medical Treatment Case (MTC)

The injured or sick person requires treatment (more than First Aid) from a professional physician or qualified paramedic.

Near miss/near accident

Any event which had the potential to cause *injury* and/or damage and/or loss, but which was avoided by circumstances. (IAGC Consensus 1993).

Occupational illness

An abnormal health condition or disorder (physical or mental) that is caused or aggravated by exposure to environmental factors associated with employment, including chemical, physical, biological and ergonomic factors.

Occupational injury

Work related physical *injury* or disease [illness] which results in death; being unfit to work the day following the event; restriction of work or motion including temporary or permanent transfer to another job. (OGP report 6.5/301, 2000 'User guide for safety statistics reporting').

Performance indicator

A specific measure to describe management, operational process or performance.

Permit to work (system)

A formal written system used to control certain types of work which are identified as hazardous. It is also a means of communication between site/installation management, plant supervisors and operators and those who carry out the work.

Essential features of a Permit to Work are:

- Clear identification of who may authorise particular jobs (and any limits to their authority) and who is responsible for specifying the necessary precautions.
- *Training* and instruction in the issue and use of permits.
- Monitoring and auditing to ensure that the system works as intended.

(OGP report 6.29/189, 1993 '*Guidelines on Permit to Work Systems*').

Personal Protective Equipment (PPE)

All equipment and clothing which is intended to be worn or held by a person at work and which affords protection against one or more risks to health and safety. This includes clothing designed to protect against adverse weather conditions.

Policy

- 1 The expression of the general intentions, approach and objectives of an organisation and the criteria and principles on which actions and responses are based. (OGP report 6.34/206, 1994 '*Health, safety and environmental schedules for marine geophysical operations*')
- 2 A public statement of the intentions and principles of action of the company regarding its health, safety and environmental effects, giving rise to its strategic objectives and targets. (based on OGP report 6.36/210, 1994 '*Guidelines for the Development and application of health, safety and environmental management systems*').

Preventative maintenance

Maintenance carried out before the unit or system fails to ensure its continued reliability and safe operation.

Procedure

- 1 A document that describes how an activity is to be performed and by whom.
- 2 A document that specifies the way to perform an activity. (OGP report 6.34/206 1994 '*Health safety and environmental schedules for marine geophysical operations*')

Quality

The totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.

Quality management

That aspect of the overall management function that determines and implements the *quality policy*.

Reasonably practicable

A *risk* reduced to levels such that further *risk* reduction measures would be so disproportionate to the probability and consequences of occurrence that it would be objectively unreasonable to implement them.

Recordable injury

Includes any work related *incident* where a person is fatally *injured* or becomes fatally ill or requires treatment from a professional physician or paramedic on more than one occasion for the same *incident*.

Reportable incident

Those incidents which are considered serious enough to warrant being recorded as a statistic.

Responsibility

Those actions, activities or assets for which a person is held liable and for which he alone must account.

Restricted Work Case (RWC)

Where the *employee* cannot fulfil his normal work the day following an *incident* but is able to undertake a temporary job; work at his normal job but not full-time; work at a permanently assigned job but unable to perform all duties normally assigned to it. (OGP report 6.5/301, 2000 'User guide for safety statistics reporting').

Risk

- 1 The product of the chance that a specified undesired event will occur and the severity of the consequences of the event. (OGP report 6.36/210, 1994 'Guidelines for the Development and application of health, safety and environmental management systems').

- 2 The measure of the likelihood of occurrence of an undesirable event and of the potentially adverse consequences which this event may have upon people, the environment or economic resources. (OGP report 11.1/98, 1984 *Applications and limitations of risk assessment in offshore exploration and production*’).

Risk assessment

- 1 A careful consideration by competent people of the *hazards* associated with a task. The potential effect of each *hazard*, how severe it might be and the likelihood of it occurring, should be considered to determine the effort required to make the work site as safe as *reasonably practicable*. (OGP report 6.29/189, 1993 *Guidelines on permit to work systems*’)
- 2 The whole process of *risk* analysis and the evaluation of the results of the *risk* analysis against technological and/or economic, social and political criteria. (OGP report 11.1/98, 1984 *Applications and limitations of risk assessment in offshore exploration and production*’).

Risk management

A management system which eliminates or mitigates the threat from *hazards*. (OGP report 6.29/189, 1993 *Guidelines on permit to work systems*’)

Risk sensitive job: (HSE critical)

Activities, personnel or measures that have been identified as vital to ensure asset integrity, prevent *incidents*, and/or to mitigate adverse HSE effects. (OGP report 6.36/210, 1994 *Guidelines for the Development and application of health, safety and environmental management systems*’).

Senior management

Those managers or directors who have executive authority to determine and enact strategic policies within the organisation.

Standard

A document, established by consensus and approved by a recognised body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results.

Stress

Any interference that disturbs a person’s healthy mental and physical well-being.

Substance (abuse)

Any substance which chemically modifies the body's function resulting in psychological or behavioural change. In this context substance includes but is not limited to alcohol, intoxicating products or medication. Substance Abuse is the use of these substances in a harmful or improper way. (OGP Report 6.87/306, 2000 'Substance abuse: guidelines for management').

Training

The process of imparting specific skills and understanding to undertake defined tasks.

Toxic

The characteristic of a chemical substance to produce *injury* once it reaches a susceptible site in or on the body. The effects may be acute or chronic, local or systemic.

Unsafe act

Any act that deviates from a generally recognised safe way or specified method of doing a job and increases the potential for an *accident*.

Waste

Any material, (solid, liquid or gas), which is introduced into the work location as a product of the work but which fulfils no further useful purpose, at that location.

Waste management

A system to achieve reduction, re-use, reclamation, recycling and responsible disposal of materials.

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What is OGP?

The International Association of Oil & Gas Producers encompasses the world's leading private and state-owned oil & gas companies, their national and regional associations, and major upstream contractors and suppliers.

Vision

- To work on behalf of all the world's upstream companies to promote responsible and profitable operations.

Mission

- To represent the interests of the upstream industry to international regulatory and legislative bodies.
- To achieve continuous improvement in safety, health and environmental performance and in the engineering and operation of upstream ventures.
- To promote awareness of Corporate Social Responsibility issues within the industry and among stakeholders.

Objectives

- To improve understanding of the upstream oil and gas industry, its achievements and challenges and its views on pertinent issues.
- To encourage international regulators and other parties to take account of the industry's views in developing proposals that are effective and workable.
- To become a more visible, accessible and effective source of information about the global industry, both externally and within member organisations.
- To develop and disseminate best practices in safety, health and environmental performance and the engineering and operation of upstream ventures.
- To improve the collection, analysis and dissemination of safety, health and environmental performance data.
- To provide a forum for sharing experience and debating emerging issues.
- To enhance the industry's ability to influence by increasing the size and diversity of the membership.
- To liaise with other industry associations to ensure consistent and effective approaches to common issues.



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