



Asociación Iberoamericana
de Gas Licuado de Petróleo
Associação Iberoamericana
de Gás Liquefeito de Petróleo

**MULTILINGUAL
GLOSSARY OF OIL
LIQUEFIED GAS
(LP Gas)**



**MULTILINGUAL
GLOSSARY
OF THE LIQUEFIED
PETROLEUM
GAS INDUSTRY
(LP Gas)**

Prezados Membros da AIGLP,

Temos o prazer de informar que estamos lançando o Glossário da AIGLP em português.

Neste primeiro momento, ele é apenas, uma tradução do Glossário em espanhol e deverá, no futuro próximo, incluir descrições mais específicas de alguns termos em Português.

A adição de novos termos, adotados na língua Portuguesa, levará, por sua vez, a um enriquecimento e maior integração com o Glossário em espanhol.

Esse trabalho não termina e a contribuição de nossos sócios só enriquece.

Agradecemos a todos pela colaboração.

Atenciosamente,

Arthur C. Ituassu

Diretor Executivo da AIGLP



SPARK DAMPENER

Accessory which prevents the passage of flames or sparks from or to apparatus or equipment.

ABANDONMENT

Work undertaken for the purpose of leaving a hydrocarbon facility, either totally or partially out of service, in a safe condition and, if applicable, in compliance with environmental regulations. In the case of Pipeline Hydrocarbon Transportation, they are access routes used to access the pipeline's signposted secure strip and the Stations.

TANK FITTINGS

Ecuador: Are parts connected to the recipient's apertures forming an airtight unit. Generally includes pressure escape devices, closing valves, excess flow valves, liquid level measuring devices, pressure escape devices and protective layers. These metal parts should be made with steel, flexible casting, malleable casting or brass, and never molten iron. Fittings shall be constructed with suitable materials for the service of LP Gas and be resistant to its actions during use. The fittings that support pressure and don't operate like castables must have a minimum melting point of 8168C. The recipient fittings should have an assigned working pressure of no less than 1,7 MPa.

ACCIDENTALITY

The frequency or rate of work accidents or occupational diseases.

ACCIDENT

Any unexpected event causing injury to persons, material damage or loss of production.

Argentina: Any undesirable event causing injury or psychological changes in a person, damage to property, loss of production, damage to the environment or harm to the company's image.

WORK ACCIDENT

Peru: An Accident that happens to Personnel in the execution of an employer's order. Thus, a Work Accident, is considered to be any violent or sudden event, deriving from work functions and from or during employment that may cause organic or functional damage to the Personnel due to external causes or due to the efforts made by them and leading to temporary or permanent reduction in their ability to work or full disqualification, or even causing their death.

Something which occurs to Personnel when executing orders of the employer, even outside the place and hours of work, as well as something which occurs before and during work breaks, is also considered a Work Accident, if the Member of Staff is, for reasons of their work obligations, satisfying basic physiological needs, onsite or at the premises of the EA.

Something which occurs when the member of staff is going to their workplace or returning from it, in transportation provided by the project owner, is also considered a Work Accident.

Argentina: An unexpected injury which occurs at work or on the way between the worker's home and the workplace or vice-versa (commuting).

BODILY INJURY

Accidents that cause physical injury or psychological changes to an employee in the course of their work.

"COMMUTING" ACCIDENT

A person injured going directly from their home to work or vice versa.

ACCIDENT NOT NOTIFIED

An accident that occurs outside the work environment or which has no relation to the occupation of the employee, nor with the installation or Activity of Hydrocarbons.

ACCIDENT WITHOUT LOSS OF TIME

Argentina: Any undesirable event that causes physical harm or mental changes to a person, but that does not result in time missed from work.

ROAD ACCIDENT

Undesirable event that happens to automotive vehicles, wagons, horses or pedestrians, which can result in damage to those parties involved or third parties, both on the material and personal level.

AEROSOL ADMINISTRATOR

Argentina: Anyone using LP Gas (Liquefied Petroleum Gas) as a propellant for aerosols.

PETROLEUM SEEP

Liquid or gaseous hydrocarbons that leave traces surging to the surface indicating the existence of an accumulation of hydrocarbons.

WATER FOR PRODUCTION

Water that comes from reservoirs and is produced together with hydrocarbons. The same water that is separated and treated before surface use, or for reintroduction underground through wells.

DOWNSTREAM

Expression that indicates the portion of the gas facility which is connected after the element used as a point of reference.

ENVIRONMENT

The set of biotic and abiotic elements that interact in a certain space and time

THREAT

A newly started fire that can be extinguished.

UPSTREAM

Expression that indicates the portion of the gas facility which is connected before the element used as a point of reference.

AMFE

Modal Analysis of Failures and Effects. Procedure for the analysis of potential failures in a particular rating system, determined by severity or by the effect of system failures. This method is valid for any type of process or situation, including the processes found in all areas of the company, from design and assembly to manufacturing, trading and the organization itself, in all functional areas of the company. It was originally designed for the automotive industry, but later extended throughout the industry. It is generally used in assembly-line production, such as the production of bottles (cylinders).

ENHANCEMENT

In Pipeline Hydrocarbon Transportation, it is an expanded setup that does not change the original route of the pipeline within the Transportation System, in order to achieve an increase in transport capacity.

RISK ANALYSIS

The study to evaluate potential hazards and their possible consequences in an existing facility or in a project, in order to establish preventive measures and protection.

ANGLE OF INPUT AND OUTPUT OF A GAS STATION

Peru: The angle is a maximum of forty five degrees (45º) and a minimum of thirty degrees (30º) measured from the alignment of the inside edge of the track.

ANSI**(American National Standard Institute)**

North American Standard Institute

ANTI-EXPLOSIVE

See Safe Explosion

FIREPROOF

Any material that produces no spark or hot spot when struck.

API (American Petroleum Institute)

American Petroleum Institute

APPROVED

Accepted by the competent authority.

TANK HEATER

Equipment that receives the LP Gas from the storage tank in a liquid state and heats it; the heated product is returned to the same recipient.

CLASS AREA I

In the Sale of Fuels to the General Public, the place where a sufficient volume of fuel vapor to produce an explosive mixture or an ignition, may be present in the air. Within this area there are two distinguishable types: Class Area I Div 1 and Class Area I Div 2.

CONTRACT AREA

Area defined in the Agreements specified in Article 10 of Law No. 26221, where the Contractor performs, directly or through Outsourced companies, the operations in accordance with the terms contained therein.

DANGEROUS AREA

In the case of storage is the area where there is or there may be a hazardous atmosphere.

Argentina: Area where environmental concentrations or other characteristics of hazardous materials pose a risk to people, property and the environment.

PROTECTED AREA

Construction or Facility on the property adjacent to Hydrocarbon storage facilities, located in an area with a fire station or where the aforementioned facility has its own fire brigade.

STORE PERSON

Venezuela: Person authorized by the Ministry of Popular Power for Energy and Petroleum to store LP Gas.

Argentina: Anyone who stores and / or regularly makes available to third parties their storage capacity for LP Gas (Liquefied Petroleum Gas) and / or their loading capacity so that it can be requested by legally registered operators

STORAGE FACILITY

Facility that has one or more deposits whose purpose is to store liquid and gaseous fuels.

STORAGE OF LP GAS

Venezuela: Storing LP Gas, receiving it from supply sources and packing it in supply plants for delivery to distributors or consumers.

STORAGE UNDER PRESSURE

The Storage Recipient whose design pressure is greater than atmospheric pressure. This does not include Low Pressure Storage Tanks

CONVENTIONAL STORAGE

Storage, which uses fixed, Surface Fixed Tanks, Mobile Tanks, Buried Tanks and Elevated Tanks

HIGH FLASH POINT STORAGE

Storage that involves storing a liquid whose flash point is greater than 54.48C (130F). Does not include liquids stored at temperatures above or within 8.3C (15F) of their point of combustion (high flash stocks).

LOW FLASH POINT STORAGE

Storage that involves storing a liquid whose flash point is less than 54.48C (130F) as well as any other liquids stored at temperatures greater than or within 8.3C (15 F) of their point of combustion (low flash stock).

UNCONVENTIONAL STORAGE

Storage capacity (in the basement) that is not default or conventional (pools, caves, etc.)

ROOT CAUSE ANALYSIS

A technique to investigate accidents and incidents through retrospective analysis of past events. Starting from an unwanted fact, damage to persons, a place of work, or a combination of both. Shows in chart or graph form, the logical sequence of events that had a direct and indirect impact and caused an accident.

A.R.T (Insurers of Labour Risk)

Argentina: Companies created especially with a singular objective, which are responsible for all types of benefits, in cash and the medium of exchange of the system in order to help affected workers.

Brazil: It is not only a legal obligation for all professionals involved in Crea. A Record of Technical Responsibility enhances professional practice, confers documentary legitimacy and ensures, with public support, authorship. It also limits responsibility and technical participation in each job or service. It generates the legal guarantees of a contract. With the register of A Record of Technical Responsibility, every professional builds their Technical Collection. This document is the mirror of their accomplishments, their career. It has legal effect and is essential in bidding, representing a major differential for individual successes. Businesses and professionals are distinguished within the market when they demonstrate participation in technical activities by presenting their Certificate of Technical Accomplishments.

ASME

American Society of Mechanical Engineers

TEMPORARY ASSOCIATION (JOINT VENTURE)

Joint venture of several companies with a limited purpose where risks are shared. This practice is common among companies in the oil industry.

ASTM

American Society for Testing and Materials

EARTHING

A system for discharging into the ground, quantities of electricity which might eventually charge the elements by lightning, lack of electrical insulation, etc..

HYDROCARBON TRADING ACTIVITY

Performed by companies duly authorized and directly related to the import, export, storage, transportation, distribution or sale of liquid fuels and other derivatives of Hydrocarbons.

HYDROCARBON ACTIVITY

The operation related to the Exploration, Exploitation, Processing or Refining, Storage, Transportation, Trading and Distribution of Hydrocarbons.

EXPLOSIVE ATMOSPHERE

Mixture of flammable substances in the form of gases, vapors, mists or dusts, with air, in which, after ignition, combustion spreads to the entire unburned mixture.

FLAMMABLE ATMOSPHERE

When there is a concentration of flammable substances more than 10% above the lower flammability limit. The formation of a flammable atmosphere may be due to various causes, for example, leakage of alkanes with a low molecular weight (e.g. methane, ethane, propane or butane) or spillage of hydrocarbons at high vapor pressure.

HAZARDOUS ATMOSPHERE

Storage which contains a significant amount of vapor or flammable gases in concentrations susceptible to ignition, or which are toxic.

TOXIC ATMOSPHERE

An atmosphere is toxic when the concentration of material is above the IDLH (Immediately Dangerous to Life or Health). The IDLH is the highest concentration of hazardous substance expressed in ppm or mg/m³ which could escape into the environment in a period of 30 minutes without experiencing serious symptoms or irreversible effects on health, in case of faulty respiratory equipment or a lack thereof.

EXPLORATION AUTHORIZATION

Official authorization permitting the holder to perform all necessary work to find a field.

Generally these commitments are exclusive, only authorizing the holder to survey the designated area. Similarly, in the case of discovery, the beneficiary has the right of exploitation.

STORAGE AUTONOMY

Ecuador: Minimum time the tank, whether fixed or mobile, works normally, without refilling with LP Gas or changing the tanks, in the case of mobile tanks.

COMPETENT AUTHORITY

The entity responsible for ensuring compliance with the provisions contained in the regulation of hydrocarbon activities; and with the power to issue statements through administrative acts, within the sphere of their jurisdiction.

Argentina: Organization, office or individual responsible for ensuring compliance with the requirements of legislation, codes or standards, or for approving equipment, materials, installations or procedures.

AUTO COOLING

Within storage, the cooling effect produced by vaporizing LP Gas, when it ventilates up to a pressure that is lower than the storage.

AUTO SERVICES

Within Liquid Hydrocarbon Trading, it is the establishment of sales to the public, whereby the fuel supply is carried out by the user or client.

AUTO TANK

Mexico: Modified transportation used to transport petroleum products or petrochemicals. It is the most flexible method of transport, since it has the fastest response

time to the presentation of given requirements, and it doesn't require virtually any infrastructure prior to its use. On the other hand, it has the highest unit cost.

ENVIRONMENTAL IMPACT ASSESSMENT

Bolivia: An assessment of the impact of a facility or activity on the environment that surrounds it, conducted before the work on this activity has begun. The basis of the original study, a key part of this process, describing the original conditions.



B

SEDIMENTARY BASIN

Crustal area that can cover large regions which have suffered subsidence, where significant deposits of sedimentary rocks in overlying layers accumulate reaching a depth of 10,000 meters or more. Under certain conditions, due to decomposition of organic matter, hydrocarbons may be generated in these areas.

LP GAS BALLOON (BALLOON)

Peru: Name by which the cylinder for LP Gas is known

BARGE

Mexico: Store towed by a boat. It's not a boat, as it isn't self-propelled. They are used to transport petroleum products by rivers, lakes, etc. A drilling system can be mounted on a barge, and can be used to drill wells in lakes.

BARREL (b) (Bbl)

Peru: The unit of measurement for liquid hydrocarbon capacity which consists of forty-two (42) United States gallons, corrected at a temperature of 15,55C (60F), at sea level pressure, with no water, mud or other sediments.

Chile: Volumetric unit, usually used to measure crude oil. 1 m³ is equivalent to 6,29 barrels.

Bolivia: American measurement of volume, equivalent to 35 imperial gallons, 42 American gallons or 159 liters.

BATON

In the transportation and installation of LP Gas, it is the fixed vertical pipe section on the wall or at the bottom of the cabinet or clamped with the same material as the pipe, or with a steel clamp with proper insulation, whose upper part is installed in the direction of the flow, the regulator, general block valve and the T test, which carries the LP Gas for the rest of the indoor installation.

BCF

A billion cubic feet.

BIOFUEL

Colombia: A fuel obtained from biomass, which i) works in internal combustion engines, without the need for any modifications or ii) via external combustion, supplies energy for the process of electricity production.

Chile: Any type of fuel derived from biomass - recently living organisms or their metabolic waste. The fuels of biological origin can substitute part of the consumption of traditional fossil fuels (oil, coal), with the advantage that they are renewable and have a low impact on the environment.

Peru: A fuel obtained from biomass, which i) works in internal combustion engines, without the need for any modifications or ii) via external combustion, supplies energy for the process of electricity production

BIOTA

Flora and fauna.

BLEVE (Boiling Liquid – Expanding Vapor Explosion)

Explosion caused by releasing pressure characterized by rupture of the recipient in two or more parts, when the liquid contained therein reaches a much higher temperature than its boiling temperature at normal atmospheric pressure

BLOW OUT

The uncontrolled escape of oil, gas or water from a well due to pressure release in a reservoir or a failure of containment systems.

SUPPLY PUMP

See Supply Unit

CYLINDER/CANNISTER

Bolivia: LP Gas recipient, airtight, transportable, with a capacity and design approved by the Bolivian Institute of Standardization and Quality (IBNORCA).

FIRE BALL

Flame spread by diffusion. Occurs when the ignition produces a large mass of flammable gases.

BS&W (Basic Sediment and Water)

In Exploration and Exploitation Activities, they are the sediments contained in Hydrocarbon Liquids at the bottom of the water that are not loose.

BTU (British Thermal Unit)

Peru: The heat required to raise the temperature of one pound of water by one degree Fahrenheit. It is equivalent to 1.055,056 joules.

Mexico: British Thermal Unit. The amount of heat required to raise the temperature of apound of pure water by one degree Fahrenheit under standard conditions of pressure and temperature.

Bolivia: Abbreviation for "British Thermal Unit ", a unit that corresponds to the amount of heat required to raise the temperature of one pound of water by one degree Fahrenheit at a given temperature and pressure.

BUTANE

Argentina: Gas present in small amounts in most natural gases. Liquefied easily by the application of low pressure or by cooling. A fuel and refrigerator also used in the manufacture of synthetic rubber.

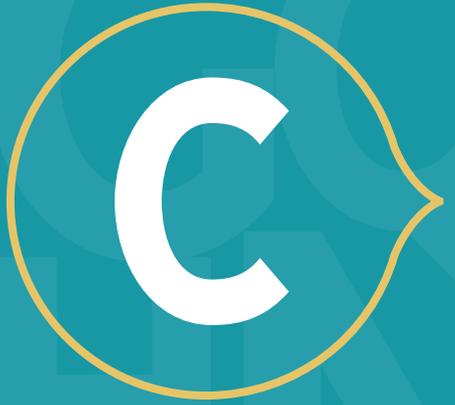
Bolivia: Gas present in small amounts in most natural gases. Liquefied easily (for transport and storage) by the application of low pressure or by cooling. A fuel and refrigerator also used for petrol, for cooking, heating and in the manufacture of synthetic rubber.

Mexico: Hydrocarbons from the alkane family, formed of four carbon atoms and hydrogen 10, which are mainly produced together with natural gas and in certain refinery operations such as decomposition and catalytic reforming. The term butane covers two structural isomers, n-butane and isobutene. Mixed with propane it is the source of liquefied petroleum gas.

Peru: Open-chain hydrocarbon which has 4 carbon atoms.

BY-PASS

A duct used in a manner that would not disrupt the gas supply in the event of destruction of the bridging element. May be a temporary facility or be part of a project.



WELLHEAD

A steel unit with a set of valves and connections that support the pipes of a subterranean well, enabling pressure control and production or injection from the surface (Christmas tree).

CABOTAGE

Maritime traffic on the coast of the same country.

Argentina: internal traffic of the country (air, marine, vehicular, etc.)

SWITCH BOX

Electric circuit controller.

WHARF

The set of facilities for unloading LP Gas truck tanks, consisting of the discharge tubes, structure, defence, hoses, valves, etc.

CISTERN TRUCK

Vehicle consisting of a tractor and a tank mounted on the chassis of the coupling platform (semi-trailer).

TANKER TRUCK

In Hydrocarbons Transportation, this is the automotive vehicle equipped with a tank of cargo mounted on the chassis, forming a single unit.

PLUMBING

Set of connected pipes and accessories that allow the circulation of gas inside them.

CONTRACTED CAPACITY

In Pipeline Hydrocarbon Transportation, it is the part of the Transportation Capacity that was reserved by a user through a Contract of Carriage.

WATER CAPACITY

Term used in storage, usually referring to LP Gas in recipients when the capacity of the recipient is a function of its interior dimensions and not a function of the capacity of the liquid with which it is filled.

TRANSPORTATION CAPACITY

The maximum amount of hydrocarbons that the Dealer is able to transport, per unit of time, through the transport system.

AVAILABLE CAPACITY

In Pipeline Hydrocarbon Transportation, it is the difference between the Transportation Capacity and total Contracted Capacity.

SAFETY OF MATERIALS PRIMER

Document used to describe hazardous materials, their risks to health, safety and the environment as well as specifying emergency actions necessary to control them.

NOTIFIED CASES

Argentina: The amount of work accidents (including commuting accidents), occupational diseases and health deteriorations that were reported by A.R.T or by self-insured employers in a given period.

CAUSE

In accidentology, it is the event or sequence of events that creates an effect.

SCHEDULE

Argentina: Number that relates to the pipes' diameters, thicknesses, working pressures and materials. It is obtained using the following expression:

$$\text{Schedule} = 1.000 \frac{\text{Maximum working pressure}}{\text{Permissible stress to equipment}}$$

AUTHORIZED EXCHANGE CENTERS

Facility on good real estate where packaging companies that sign a service contract with the owner or operator of the site can exchange empty LP Gas cylinders.

Argentina: Any Person duly authorized by the Application Authority that stores and carries out, on behalf of third parties, the exchange of empty recipients with a capacity of up to 45kg, up to and including the structures of fractionation or other duly recorded trading centers.

STORAGE CAPACITY

Maximum amount of LP Gas authorized to be contained within an enclosure, whether in bulk(tanks) or mobile reservoirs.

C & F

Terms of international trade meaning cost and freight. The seller must pay the costs and freight necessary to bring the goods to the destination point. The risk of loss or damage, as well as any increased costs are transferred from the seller to the buyer when the goods pass the edge of the ship at the port of shipment.

CHECK LIST

Checklist for control or monitoring.

CEMENTATION

In Exploration and Exploitation, it is the technique that prepares, pumps and finds a mixture of cement and additives in the well, for the purpose of fixing the pipe, creating insulation, or repairing or abandoning zones or the Well.

CIF

Cost, Insurance and Freight. This term indicates the seller covers the cost of shipping and moreover has to purchase insurance against the risk of loss or damage to goods during transport. The seller establishes the contract with the insurer and pays the insurance bonus.

LP GAS CYLINDER

Peru: Special portable packaging made of steel, manufactured to contain LP Gas whose shape, weight and dimensions facilitate handling, shipping and installation. It is also called a balloon.

Ecuador: Recipient for holding LP Gas consisting of a body formed of two caps, one upper and one lower, a valve port, a valve, a handle and a base. They are commonly called mobile tanks, mobile recipients used for the storage and transport of flammable gas, whose total volumetric capacity does not exceed a water content of 0.11 m³ (45 kg of flammable gas), and whose size and weight allows them to be transported manually with relative ease. These recipients must only be filled in packaged units. In the country two types of cylinders are used, with a 15kg and 45kg capacity. The 15kg INEN 2260 standard is excluded from use in domestic, commercial and industrial LP Gas facilities. It is only to be considered for installation as unique equipment for residential use.

BRANDED CYLINDER (BALLOON)

Peru: Portable steel recipient with branding identifying the Company on the cylinder of the packaging, used in LP Gas Trading.

BRANDED CYLINDER (BALLOON) IN KG

A cylinder of 5, 10, 13, 15, 20 and 45 kg capacity, with branding embossed on the body and manufactured in accordance with the Technical Standard currently used in LP Gas Trading, which is owned by a Distribution Company.

BRANDED CYLINDER (BALLOON) IN POUNDS

Peru: A cylinder of 24 and 100 pounds capacity, on the market for LP Gas Trading.

TYPE 10 CYLINDER

LP Gas recipient with a capacity of less than 25 kg which may be used individually in devices and interior facilities.

UNBRANDED CYLINDERS

24 and 100 pound portable steel LP Gas recipients, available on the market, unlabelled and embossed enabling their identification.

TYPE 45 CYLINDERS

LP Gas cylinders with a capacity exceeding 25 kg, which can only be installed and used by LP Gas Equipment users.

UNIVERSAL APPROPRIATED CYLINDERS

In Colombia they are cylinders from the world over, which have over time, been found to be suitable for continued service, and at the point of being purchased by a distributor, were earmarked by them, as their property, in accordance with the respective technical regulations and standards of the Ministry of Mines and Energy.

Argentina: A cylinder that can connect to the service, both upright and horizontally, in such a way that the fixed maximum liquid level gauge, the escape device and extraction accessories work correctly in both positions.

INTRINSICALLY SAFE CIRCUIT

Argentina: One where the energy released in the electric arc, generated by a short circuit is insufficient to ignite an explosive mixture.

CLASS I (see also Class Area I)

Corresponds to the classification of areas of risk in accordance with the National Electrical Code (NEC) in the USA. In particular, Class I identifies those locations where the quantity of gases or vapors that is present, or that could be found in the air, is sufficient to produce an explosive or flammable mixture. According to the probabilities of such a situation, NEC is sub-classified as follows:

CLASS I - Division 1:

Comprises places:

- where there is or may be on a continuous, intermittent or periodic basis and under normal operating conditions, hazardous concentrations of flammable gases or vapors;
- where there may often be concentrations of such dangerous gases or vapors, because of repair work or maintenance or because of leaks;
- where breakage or malfunction of equipment involved in the process may cause the release of hazardous concentrations of flammable gases or vapors and may produce at the same time, faults in the electrical system.

CLASS I- Division 2:

Comprises places:

- in which volatile flammable liquids, are handled, processed or used, usually confined to recipients or closed systems, from which there cannot leak more than in the case of a rupture or accidental damage to the recipients or systems, or from the operation of abnormal equipment.
- where positive mechanical ventilation usually prevents the concentration of hazardous gases or vapors, but, through failures in the operation of ventilation can become dangerous.
- which are adjacent to Class I Division 1 in which concentrations of gases or hazardous vapors can occur, unless such concentrations can be prevented by a positive pressure ventilation system with a source of clean air and with the provision of adequate devices to prevent the failures of that system.

CO

Carbon Monoxide. Toxic gas.

CO₂

Carbon Dioxide. Toxic gas.

COVER

Removable protector placed on the pipe nozzles of the secure ventilation valve, to keep out unusual elements that may hinder proper functioning of that element.

CODE

A standard that constitutes an extensive compilation of requirements.

COLLECTOR

In LP Gas trading, it is the device made of copper tubes with one terminal for connecting it to the inverter and the other terminals used for flexible connections. It is also known as a distributor or manifold.

OXIDISER

The element whose presence ensures the fuel can burn (usually oxygen). The substance that oxidizes fuel during combustion reactions.

FUEL

Any substance capable of igniting under certain conditions. Any material that can burn or undergo rapid oxidation.

LIQUID FUEL DERIVED FROM HYDROCARBONS

Hydrocarbon mixture used to generate energy through combustion that conforms with the NTP for such use. Henceforth they will be called Fuels. They are subdivided into:

-Class I

When they have flash points of less than 37,8 oC (100oF). Flammable liquids.

-Class II

When they have flash points equal to or

greater than 37,8 oC (100oF), but less than 60oC (140oF).

-Class IIIA

When they have flash points equal to or greater than 60oC (140oF), but less than 93oC (200oF).

-Class IIIB

When they have flash points equal to or greater than 93oC (200oF).

Within this definition are included various types of petrol, diesel, kerosene, fuel for aviation, marine fuel (bunker) and waste.

SUPPLIER

Argentina: Is any person who buys and sells LP Gas (Liquefied Petroleum Gas) in bulk, on their own and/or from third parties in the domestic and/or foreign market.

WHOLESALE SUPPLIER OF LP GAS

Colombia: Activity involving the provision of LP Gas Wholesale and in Bulk for the Fuel Gas Public Homecare Service.

RETAIL SUPPLIER OF LP GAS

Colombia: Activity that consists of the delivery of LP Gas in cylinders to homes of end user or to stores. Includes the purchase of packaged product under an exclusive contract with a distributor and where applicable, transport in cylinders, the celebration of public service contracts with end users and providing commercial services to users.

COMMISSION

Bolivia: The remuneration received by a Dealer, for the activity of distributing LP gas in cylinders or trading Liquid Fuels through a Service Station.

COMMODITY

Raw material or product whose price is used as an index of commercial value. Oil is the largest commodity traded in the world markets. Economic goods:

- a) An agricultural or mined product.
- b) A commercial item, particularly one shipped by sea (spot or future commodity).
- c) An indistinguishable mass produced product (chemicals, chips).

COMPLETION

In the exploration and exploitation of Hydrocarbons, it is the work after perforation to prepare the perforated well for production.

COMPRESSION

See Compression Facilities.

COMPRESSOR

Machine that increases the pressure or velocity of the gas taking into account transportation or storage.

HAZARDOUS CONCENTRATION

A hazardous concentration is checked when the gas is mixed with the air in following relation, expressed in volumetric percentages of gas as a mixture of air:

- Propane 2.3% to 9.5%
- Butane (isobutene) 1.8% to 8.5%

CONCESSION

Right granted by the State to a natural person or a legal entity, to provide a service, the Pipeline Hydrocarbon Transportation or Natural Gas Distribution by a Pipeline Network, including the right to use the assets of the concession for the provision of this service.

EXPLOITATION CONCESSION

Argentina: Decision of the Government to give the right to exploit or use something or a public asset. The exclusivity of exploration rights implies exclusivity to rights of exploitation. This contractual arrangement grants the dealer ownership of the hydrocarbons and the use of the fields.

DEALER

Person established in Peru according to Peruvian laws, who is granted a concession for Pipeline Hydrocarbon Transportation or for the Distribution of Natural Gas by the Pipeline Network.

CONDENSED HYDROCARBONS

Peru: Are liquid hydrocarbons formed by the condensation of hydrocarbons separated from natural gas due to changes in pressure and temperature when produced from reservoirs or through one or more compression steps. They remain liquid at ambient atmospheric temperature and pressure.

Bolivia: Liquid hydrocarbons produced together with and separated from natural gas by cooling or other means. This can refer to any mixture of relatively light hydrocarbons that remain liquid at normal temperatures and pressure. They will have some amount of butane and propane dissolved in the condensate. Instead of crude oil, they have few or no heavy hydrocarbons which form heavy fuel.

There are three main sources of condensate.

- a) Liquid hydrocarbons that are separated when the raw gas is treated. This condensate normally consists of C₅ to C₈ (Carbons).
- b) Liquid hydrocarbons from non-associated gas which are recovered from the surface.
- c) Liquid hydrocarbons derived from gas fields/condensate. These can only be distinguished from a lightly stabilized crude.

GAS CONDENSATE

Argentina: Hydrocarbon that remains in a gaseous state under natural storage conditions, but is liquefied under high pres-

sure given normal surface conditions. In other countries these are known as "natural gas liquids".

UNSAFE CONDITION

Hazard created during the course of one's work.

CONDITIONS OF ACCESS

In the case of Pipeline Hydrocarbon Transportation, it is the set of conditions for Service, commerce, priority of assistance and extensions/enhancements of the transportation system that the Dealer complies with in the provision of the Transport Service.

NORMAL GAS CONDITIONS

Volume and other physical properties of dry gas measured at ambient pressure and at a temperature of 158C.

FLEXIBLE CONNECTION

In the Installation of LP Gas, it is an accessory formed of a copper pipe or elastomer, that at one end leads to an incoming connection, to join the type 45 cylinder valve, and at the other end, an output connection that connects to the inverter or collector as appropriate.

Argentina: Short Component (that does not exceed a length of 0.91m) of a piping system. It is made with flexible materials and equipped with appropriate connections at both ends.

QUICK CONNECTORS

Accessories used to connect hoses, pipes and valves, without using tools.

ADJUSTMENT SET or KIT

A set comprising of the pressure regulator and accompanying elements and accessories.

DIRECT CONSUMER

Peru: Person who either acquires fuel domestically or imports it, exclusively for their own use and who has facilities to receive and store fuels with a minimum capacity of 1 m³ (264,17gl). In the case of LP Gas the minimum capacity is 0,45m³ (118,8gl).

Direct consumers are prohibited from selling fuels to third parties. They are classified as: Direct Consumers with Facilities and Direct Consumers with Mobile Facilities. Direct Consumers with Mobile Facilities only require inscription in the Register. To this end, the Hydrocarbons Directorate General evaluates and discusses whether to grant such affiliation. In special cases and for the comparative advantages of simplification or pricing, there can be direct importers of Fuels, which are exempted from taxes and legal duties.

INDEPENDENT CONSUMER AND REGULATED CONSUMER

Argentina: Any person owning and responsible for recipients with a total storage capacity larger than eight cubic meters (8

m³) and facilities to store LP Gas (Liquefied Petrol Gas), who purchase that product for their own consumption.

GAS CONSUMPTION

The amount of gas consumed in a determined time and expressed in units of volume (m³) and with LP Gas, also expressed in mass (kg).

CALORIFIC CONSUMPTION

The amount of energy consumed by gas powered equipment in a determined time, referring to the lowest calorific power of the gas.

CONTAINER

Fixed tank or conditioned metal structure to be transported.

CONTINGENCY

Any event that effects the normal development of tasks and can be a risk to people or facilities. Examples of contingencies are: fire, gas leaks, power cuts, spills, attacks, meteors (storms, tornadoes, etc.), earthquakes, etc.

ELECTRICAL CONTINUITY

Obtained through metal bridges, or other systems, various elements that have the same electric potential.

TRANSPORT CONTRACT

In Pipeline Hydrocarbon Transportation, it is the contract concluded between the User and the Dealer.

CONVERSION

Procedure which reduces the monoxide content (carbon dioxide and hydrogen) of a fuel gas through a catalytic transformation in the presence of water vapor.

VALVE BODY

Venezuela: Should be made of brass, with the following chemical composition:

Alloy*	Cu (%)	Pb (%)	Fe (max) (%)	Zn (%)
C37700	58,0-61,0	1,5-2,5	0,30	Remainder

*As designated by COVENIN

FLAME CUTTER

A device that prevents flames spreading outside. It consists of a metallic element that is attached to the automotive exhaust, preventing false explosions or burning particles being propelled outside.

CRACKING

A transformation by breaking down the large molecules of crudes and gases to make them smaller in order to increase the proportion of light products and volatiles. There are two forms of industrial cracking: thermal and catalytic. Thermal cracking is accomplished through heat and pressu-

re, while catalytic cracking uses catalysts which enable equalized temperature and major transformations.

CREG (Comissão Reguladora de Energia e Gás)

Colombia: The Energy and Gas Regulatory Commission

ECONOMIC COST

Colombia: Estimated costs incurred by the company, including opportunity costs arising from not using money or other factors of production at your disposition for alternative purposes.



JET FIRE

Very long but narrow stationary diffusion flame, caused by the ignition of turbulent jets. Occurs due to the ignition of a continuous leakage of flammable gases or vapors contained in a recipient (or pipe) under pressure. For this phenomenon to occur it is necessary that the velocity of the leak exceeds the "critical velocity".

DATA

General information about facts and statistics or samples that was not analysed or processed.

DEGASSING

In the case of Hydrocarbon Storage, a tank or area is considered degassed when, for any process, the concentration of vapors or flammable or toxic gases is reduced and remains within limits safe enough to allow a person to enter.

LP GAS CYLINDER DEPOT

Colombia: Stock center, for storing LP Gas cylinders, used by retailers for operational activities related to end users. Their technical characteristics must meet those established in the current Technical Regulations issued by the Ministry of Energy and Mines and must rely on existing regulatory approval from the competent authority. (Source: CREG res-023/08, Article 1).

DEPOSIT GUARANTEE

Colombia: Amount of money the user must hand over to the Retailer to guarantee proper use and conservation of the cylinder, which is the property of the distributor, during the lease.

DERIVATIVES

Are the products obtained directly from oil distillation. There are three distinguished classes of derivatives:

- I) Finished products, which can be supplied directly for consumption;
- II) Semi-finished products that can serve as a basis for other products, whereby their quality is improved by adding additives;
- III) By-products or intermediate products serving as petrochemical raw materials.

DISCONTINUATION OF SERVICE

Termination of the use of facilities for the purposes for which they were originally constructed.

SUSTAINABLE DEVELOPMENT

From the point of view of Environmental Protection in Hydrocarbon Activities, it is the development of our economy without destroying nature and ensuring the welfare of future generations.

OCCUPATIONAL DISEASE

Occupational diseases are considered to be those which are produced due to the place or type of work.

DISTILLATION

Operation that separates the hydrocarbons in several fractions by vaporization followed by condensation. An atmospheric pressure distillation or a vacuum distillation is performed according to the nature of the final products.

VACUUM DISTILLATION

Distillation conducted in a fractionation tower with pressure below that of the atmosphere. Crude oil reduced by atmospheric distillation is distilled in a vacuum.

ATMOSPHERIC DISTILLATION

First distillation of crude oil to obtain naphtha, kerosene, diesel, and heavier products. It is always done under atmospheric pressure.

WELL DIVERSION

Changing the vertical direction during the perforation of a well.

DESULPHURISATION

Removal of sulphur compounds contained in fuel gases. It is common to call this operation the purification of gas.

DAY

Peru: When deadlines are indicated by days, this means they are working days, namely ranging from Monday to Friday, excluding bank holidays and non-working days. When deadlines are indicated by calendar days, this means they are days ranging from Monday to Sunday.

SICK LEAVE DAYS

Days considered to be sick leave are those not worked because of an injury resulting from an accident or an occupational disease within the period of temporary incapacity for work.

ANTI-FIRE DIKE OR WALL

In the Storage of Hydrocarbons, it is the construction of an appropriate height, for containing liquid spills, constructed of concrete, earth, or any other material, that must be waterproof.

DISPENSER

In facilities and in transportation of LP Gas it is the set of elements, generally consisting of a volumetric meter, computer, hose and gun, which aim to measure and transfer the LP Gas from the Storage Tank to the Vehicle's Tank (supplier).

PRESSURE ESCAPE DEVICE

Device designed to open, avoiding excessive build-up of internal pressure of a fluid, above a specific value, owing to emergency or abnormal conditions.

DEVICE THE CLOSES UNDER PRESSURE

Device that cuts off the flow of LP gas vapor when the outlet pressure regulator reaches a pre-determined maximum.

DEVICE FOR OVERLOAD PREVENTION

Safety device designed to provide an automatic means to prevent a recipient being filled above the permitted threshold.

DISTANCE FROM OPEN FLAMES

Distance within which one mustn't generate any ignition source that isn't part of the process.

MINIMUM SAFETY DISTANCE

In Hydrocarbon Storage, it is the minimal horizontal distance that should exist between the sides of Storage Tanks and other tanks, facilities or buildings.

Argentina: The minimal distances which must be kept among themselves and in relation to third parties, the distinct elements of the structure.

DISTRIBUTION

Public Natural Gas Supply service using the Pipeline Network provided by a Dealer through a Distribution System.

GAS DISTRIBUTION

Venezuela: The activity of receiving, transporting and delivering gas to end consumers through an electrical facility connected to a regional pipe distribution network.

LP GAS DISTRIBUTION

Venezuela: The activity of receiving, transporting, delivering and trading LP Gas from filler store structures to consumers by means of transport units, facilities and equipment that complies with the applicable technical standards.

DISTRIBUTOR

Venezuela: Person authorized by the Ministry of Popular Power for Energy and Petroleum to perform the activity of distributing gas and liquid hydrocarbons obtained from the same source.

BULK DISTRIBUTOR

Peru: A natural person or a legal entity, duly authorized by the General Directorate of Hydrocarbons, who is engaged in trading LP Gas in bulk using trucks, tanks and/or LP gas distribution networks.

LP GAS DISTRIBUTOR

Colombia: Conducts the following activities: i) Purchase of LP Gas in wholesale market to be sold to the end user ii) shipping from direct delivery points or from the output points of the transport system to the packaging plants, iii) packing of branded cylinders and iv) operating the corresponding packing plant.

Also includes freight activities and delivery of bulk through stationary tanks, installed in homes of end users and sales of cylinders at Points of Sale.

Venezuela: Person authorized by Ministry of Energy and Mines to distribute LP Gas.

CYLINDER DISTRIBUTOR

Peru: In the trade of LP Gas, this is the person duly authorized by the Director General of Hydrocarbons, who is dedicated to trading in cylinders, for which they have exclusive depots, areas or vehicles.

DISTRIBUTORS OF RECIPIENTS WITH UP TO 45 kg CAPACITY

Argentina: Anyone buying and selling LP Gas (Liquefied Petroleum Gas) on their own or together with a third party, in recipients with a capacity of up to 45 kg, that has access to depots for storage of filled and/or empty recipients with a capacity greater than 1000kg.

WHOLESALE DISTRIBUTOR

Peru: Person who acquires domestically or imports Liquid fuels derived from hydrocarbons to store them in facilities called Supply Plants, in order to sell them to Direct Consumers or other people that trade hydrocarbons, and may export them. The Wholesaler Distributor may also be a Supply Plant Operator. Refining Companies with Supply Plants should register as Wholesale Distributors in order to perform these functions.

NETWORKS DISTRIBUTORS

Argentina: Anyone with a storage and vaporization plant used to supply vaporized Liquefied Petroleum Gas (LP Gas) by pipelines, through a distribution network for users of any category.

DOT (DEPARTMENT OF TRANSPORTATION)

American Transport Department

DOWNSTREAM

Argentina: Expression covering the final sections of an industrial process or the final step of trading the product or by-products. In the case of oil and gas, it defines the range in which the processes of refining, separation, fractionation, distribution and trading are completed.

Peru: Expression covering the final sections of an industrial process and the step of trading the product or by-products. In the case of oil and gas it defines the range in which the processes of refining, separation, fractionation, distribution and trading are completed. It is the final link in the value chain.

TANK DRAIN

In the Storage of hydrocarbons it is the connection used to depurate or drain out, water that is deposited at the bottom of the tank.



E

VORTEX BOILING

During the burning of certain Liquid Hydrocarbons when, after a period of steady combustion, there is a sudden increase in the intensity of the fire associated with the expulsion of the flaming liquid outside of the tank. This phenomenon is present in most crudes, fuels with a broad boiling range like residual fuels and when water accumulated at the bottom of a Tank vaporizes quickly.

GREENHOUSE EFFECT

Condition essential for the development of life that regulates the temperature of the earth's surface. The greenhouse gases absorb infrared radiation emitted by the surface of the Earth, retaining heat within the atmosphere, and this is called the 'natural greenhouse effect'. A few years ago man began producing an increased quantity of greenhouse gases, making the atmosphere retain more heat, causing an imbalance and consequently global warming.

SPARK PRODUCING COMPONENT

A component that is not manufactured for a flammable environment (for example, buzzers, sockets, switches, etc.)

EMISSION

The release of flammable vapors that occur with certain regularity, in operating Plants and Facilities and can be produced by errors in pump seals, valve gaskets, etc.

INSPECTING COMPANY

Peru: Person registered on the OSINERGMIN Register of Hydrocarbon Inspectors, responsible for performing inspection activities within the scope of their abilities and special tests required by that Institution; equally, in charge of drafting reports as and when required by the General Directorate of Hydrocarbons, to obtain permits for Installation, Modification and/or Enlargement, Use and Function, as applicable.

RISK ASSESSMENT COMPANY

Peru: A natural person or a legal entity, instated by collegiate professionals, specialized in the area, duly qualified, authorized and registered in the General Directorate of Hydrocarbon's Register, to conduct Risk Studies.

OIL COMPANY

A Person whose corporate purpose is the realization of Exploration and Exploitation of Hydrocarbons.

SYNDICATED LOAN

Loan that a group (syndicate) of banks grants to a company to finance its operations or a specific investment project. Each bank, accounts for its proportionate share of the total loan and the terms and conditions are the same for all banks.

NON-RENEWABLE ENERGY

Are those available in a limited amount and, once used in their entirety, can't be replaced, since there is no system of production or the production is too slow and small for useful long term results. Examples: oil, coal, minerals, natural gas and nuclear energy.

There exist Occupational Diseases Lists in which, the risk agent, clinical presentations, types of exposure and activities which tend to produce these diseases are identified.

GAS ENRICHMENT

Operation designed to increase the calorific power of gas by eliminating the inert elements or by incorporating a gas with higher calorific power.

EP PETROECUADOR

Ecuador: The Ecuadorian Public Hydrocarbon Company

APPROVED EQUIPMENT

In Hydrocarbon Storage, it is equipment or an instrument that was sent to the Competent Authority for examination or testing, and which had certification issued approving its use in the application indicated.

LP GAS EQUIPMENT

Peru: set of elements of an internal LP Gas facility, formed of between two(2)and twelve(12) Type 45 Cylinders, including replacement Cylinders. The equipment includes pressure regulators, piping parts, a general closing tap, flexible connections, collectors, etc.

MEASURING LEVEL EQUIPMENT

In Hydrocarbon Storage, it is equipment which indicates the liquid level within a Storage Tank, in relation to a reference line or the tank's base line.

PLAN

Graphical and symbolic representation of a facility, showing its most relevant characteristics.

BULK LP GAS ESTABLISHMENT FOR DIRECT CONSUMERS

Peru: Facility in a property where LP Gas is received and stored for one's own consumption, with its sale to the public prohibited, whose total LP Gas storage capacity is greater than one(i) cubic meter.

ESTABLISHMENT FOR SALE OF FUELS TO THE PUBLIC

Peru: Facility in a property where fuels are received, stored and sold. In the country, they are also called Petrol Stations, Pumps, Floating Pumps, Kerosene Pumps, Rural Pumps and Public Road Pumps.

ESTABLISHMENT FOR SALE OF LP GAS TO THE PUBLIC FOR AUTOMOTIVE USE

Peru: Facility in a property for the sale of LP Gas through Distributors, exclusively for automotive use, even though it must have a permit from the Directorate General of Hydrocarbons; and, moreover, may provide other services in their facilities deemed appropriate and approved by the Directorate General of Hydrocarbons, such as: 1. Cleaning and lubrication. 2. Oil change. 3. Sale of tires, lubricants, additives, batteries, accessories and other related services. 4. Replacement and repair of tires, alignment and equalization. 5. The sale of their own items in a mini market. 6. Any other commercial activity linked to the provision of services to the public, in their facilities, that does not interfere with its normal operation, or affect the safety of the establishment.

WATERTIGHT

Concept applicable to pipes and recipients that do not leak at a given pressure.

ENVIRONMENTAL IMPACT STUDY

Chile: Consists of a document that describes in particular detail the characteristics of a project or activity that one wishes to conduct or its modification. It should provide substantiated background knowledge in order to forecast, identify and interpret its environmental impact and describe the actions to be taken in order to prevent or minimize its significantly adverse effects.

Peru: A study that should be conducted prior to the commencement of any hydro-

carbon related activity or extension of the same, which will cover physical, natural, biological, socioeconomic and cultural aspects, in its area, with the purpose of determining the existing conditions and capacity of the environment; as well as predicting the effects and consequences of the realization of such activity, indicating measures and controls to be applied for harmonious development between the activity and the environment. The Environmental Impact Study should contain the Environmental Management Plan (PMA), both for its installation and for the operation, as well as in respect of its Evacuation Plan.

BASE LINE STUDY

In Environmental Impact Studies, the study is conducted to determine the situation of an area before running a project. It includes all biotic, abiotic and socio-cultural aspects of the ecosystem.

RISK ASSESSMENT

Covers security aspects in Hydrocarbon facilities and in their area of influence, for the purpose of determining existing environmental conditions as well as to predict the effects and consequences of the facility and its operation, indicating procedures, measures and controls to be applied in order to eliminate unsafe acts and conditions that could be posed. The Risk Assessment should examine in detail all variable techniques and natural aspects that may affect the facility and its area of influence, in order to define control methods that prevent or minimize situations of insecurity, including the scope of equipment and systems to combat fire.

PRELIMINARY ENVIRONMENTAL IMPACT STUDY

It's a study carried out using available literature, replacing Environmental Impact Studies in cases where the activity doesn't involve intensive or extensive use of the terrain, such as aerial photography, aerial magnetometry, surface geology, or in the case of activities recognized as having little impact on non-fragile ecosystems.

SEISMIC STUDY

Technique used to determine the configuration of geological layers in the subsoil by means of artificially produced seismic waves.

EXPLORATION

The planning, execution and evaluation of geological, geophysical, geochemical and other studies; as well as drilling Exploratory wells, and related activities required for the discovery of Hydrocarbons, including drilling of Confirmatory Wells to evaluate newly-discovered reservoirs.

Argentina: Is the pursuit of oil and gas fields by methods designed to detect commercially exploitable fields. This includes surface recognition, prospecting (seismic, magnetic and gravimetric), drilling exploratory wells and analysis of information obtained.

EXPLOSION

A sudden and violent release of energy. Explosions are produced by diverse causes and are generally classified according to type of energy that causes them. The explosions resulting from a release of chemical energy (as in the case of LP Gas and other fuels) are caused by a chemical reaction that raises the temperature and increases the number of blocks in the gas phase. Therefore, the nature and physical state of reactants and products is important.

Mixtures of flammable vapors with an oxidising agent, usually air, also cause explosions when they meet a number of conditions regarding concentration and have an ignition source. The explosions resulting from the release of energy pressure can occur through excessive or sudden depressurization with the consequent collapse of the recipient and the presence of an ignition source. Explosions can generally be classified as:

- **Confined:** those that develop within a recipient. The two key parameters to take into account are the maximum pressure and the speed of pressure increase.
- **Non-confined:** are those that occur outside of buildings or recipients. The most important in this category are those related to vapor clouds and spills.

EXPLOSIMETER

Apparatus for measuring the gas content of Hydrocarbons in the environment.

EXPLOITATION

Development and Production.

Argentina: Operation that consists of extracting oil and/or gas from a field.

EXTENSION

In Pipeline Hydrocarbon Transportation, it is the prolongation of an existing pipeline and its associated facilities.



F

MANUFACTURER AND REPAIRER OF RECIPIENTS, COMPONENTS AND ACCESSORIES

Venezuela: Person duly authorized by the Ministry of Popular Power for Energy and Petroleum, to carry out the activities of manufacturing and repairing recipients, components and accessories used in the handling of LP Gas.

SIGNPOSTED SECURE STRIPS

In Pipeline Hydrocarbon Transportation, it is the strip through which the Transport System's Line passes.

RECOVERY FACTOR

Percentage of oil extracted from a field with respect to the total volume contained in the same.

IRON

Peru: In trade jargon is the name given to the cylinder used for sealed LP Gas.

SUPERVISION/INSPECTION

Peru: Function performed by OSINERGMIN, according to which they shall supervise compliance with legal provisions and techniques related to Hydrocarbon activities, as well as compliance with legal regulations and techniques relating to the conservation and protection of the environment in the development of those activities.

SUPERVISOR/INSPECTOR

Peru: OSINERGMIN representative or person registered in the OSINERGMIN Register of Supervisors/Inspectors, who is responsible for the Surveillance/Inspection of Hydrocarbon Activities.

FLASH BACK

See: Flame Regression

GAS FLOW

The amount of gas that crosses a section of piping in a unit of time. Usually expressed in units of volume (m³/h) and referencing "mass flow" (kg/h).

FOB (FREE ON BOARD)

The seller delivers the goods at the port or at a land/territory agreed in the sales agreement. Risk of loss or damage is transferred from the seller to the buyer when the goods have passed the edge of the mode of transport, that is, the Seller assumes all responsibility and costs up to the specific delivery point.

FIRE

Fire or combustion is a rapid chemical reaction, oxidation of an exothermic character (and of light), which is self-sustaining, with the presence of a fuel in a solid, liquid or gaseous phase.

OPEN FIRE

An element that, one way or another, produces flames outside or inside, either permanently or sporadically.

Argentina: Equipment, mechanisms and in general, any other elements which through their use or operation are able to generate sufficient thermal energy to produce the combustion of a mixture of LP-Gas vapors and air, when said mixture comes into contact with such equipment, and allow the spread of the flames away from them.

IGNITION SOURCE

Open fire, exposed incandescent material, electric welding arc, non-approved light or any spark or flame produced by any means.

SUPPLY SOURCE

Venezuela: Physical installation duly approved by the Ministry of Popular Power for Energy and Petroleum to receive LP Gas from producers and supply it to the domestic market, storage facilities, distributors and consumers which have the appropriate means to remove it.

LP GAS SUPPLIER

Bolivia: Are Refining, Industrial or Import Companies, authorized by the Superintendence of Hydrocarbons to trade LP Gas in wholesale quantities.

CASING

See Pipe Coating (liners).

FIRE DUTY

Plan of action for combatting an incident, indicating the actions corresponding to each member of the unit, deposit, etc., including the Boss or Commissioner thereof.

CONE BOTTOM DOWN

Configuration of the bottom of the tank whereby the slope descends from the periphery to the center.

CONE BOTTOM UP

Configuration of the bottom of the tank whereby the slope descends from the center to the periphery.

FUEL PRICE STABILIZATION FUND

Chile: A fund established by law to stabilize prices of gasoline, oil, diesel and domestic kerosene for the end user in Chile.

FRACTURE

Form of artificially opening a formation to increase the permeability and the flow of oil to the bottom of the well. The usual methods of fracturing are:

- Acidification, by injecting acids to dissolve lime deposits.
- Explosions, applying explosive charges to crack the formation.
- Hydraulic, pumping liquid at pressure to open the formation.



LPG EQUIPMENT CABINET (CABINET)

Console made of material with more than two hours fire resistance, designed to protect the LP Gas equipment.

GALLON(GL)

A measurement of liquid volume equivalent to 3,78533 liters. It is known as a U.S. Gallon.

GART

Peru: Tariff Regulation Deputy Management. A body of OSINERGMIN.

GAS

Bolivia: The gaseous bodies called gases or vapors that are primarily comprised of air, consisting of even more independent elements than in liquids. They have a special characteristic that is the natural tendency to expand, occupying more and more significant space. This is how a gas enclosed in an airtight recipient without an exit, develops an increasing force against the walls, tending to dilate them and break them. This effort is interchangeably called tension, pressure, elastic force or expansive force.

ACID GAS

Natural gas containing sulphuric acid (hydrogen sulfide), carbon dioxide (carbonic anhydride, carbonic gas) or other corrosive components which should be treated before their use. It is also known as "sour gas".

SALES GAS

Bolivia: Raw gas, after being processed to remove LP gas, condensate and carbon dioxide. Sales gas is comprised of methane and ethane.

FUEL GAS

Bolivia: Refers to gaseous fuels, that can be distributed by piping, such as natural gas, LP Gas, coal gas and refinery gas.

CYLINDER GAS

Bolivia: LP Gas

DOMESTIC GAS

Bolivia: Gas sent to consumers from a gas plant. Can be comprised of manufactured gas as well as enriched natural gas.

BOTTLED GAS

Bolivia: LP Gas stored in a liquid state, at moderate pressure in steel recipients.

GAS IN CYLINDERS

Argentina: LP Gas

WET GAS

Natural gas that contains LP Gas.

LIQUEFIED GAS

Gas that when subjected to pressure is in a liquid state at a temperature of 218C(708F).

LIQUID PETROL GAS (LP GAS)

Argentina: Bottled gas. Known as cylinder gas. Basically propane and butane, and other light products separated from crude oil or gas. An ideal substitute for natural gas in areas not yet serviced by pipelines. A fuel that replaced kerosene for domestic purposes.

Bolivia: The LP gas comprises propane, butane, or a mixture of both, which may be fully or partially liquefied under pressure in order to facilitate their transport and storage. It is known as bottled gas. Basically propane and butane, and other light products separated from crude oil or gas. An ideal substitute for natural gas in areas not yet serviced by pipelines. A fuel that replaced kerosene for domestic purposes, can be used for cooking, heating or as an automotive fuel. Liquefied petroleum gas, composed mainly of a mixture of propane and butane, sold in Bolivia according to criteria established in the Quality Regulations.

Chile: Mix of light hydrocarbons which is gaseous at normal temperatures and pressure and takes a liquid form under increased pressure or a lowering of the temperature (NCh72)

Colombia: A mixture of hydrocarbons extracted during the processing of natural gas or oil, gaseous under atmospheric

conditions, which easily liquefies through cooling or compression. Typically comprised of propane and butane. Its quality meets specifications and standards adopted by CREG by means of a resolution that establishes the remuneration for the product given to Wholesale retailers of LP Gas

Ecuador: a product consisting mainly of propane or butane or mixtures thereof, sold under pressure in liquid form and used as a fuel gas. The designation of liquefied petroleum gas should be expressed using the abbreviations LP Gas.

Mexico: Gas resulting from the mixture of propane and butane. It is obtained during the fractionation of gas liquids or during the fractionation of refining liquids. Lighter fractions of crude oil are used for domestic use and for carburation. Pemex is produced in each and every refinery run by PR and in the following gas processing centers – Cactus, Nuevo Pemex, Morelos, Cangrejera, Poza Rica, Reynosa and Matapionche. In the crude refining process, liquefied gas that comprises butane and/or propane is obtained and may differ from LP Gas in that propylene and butylene may be present.

Peru: A hydrocarbon that under normal temperature and pressure conditions takes a gaseous form, but at normal room temperature with moderately high pressure is liquefied. It is usually composed of propane, butane, polypropylene, butylene or a mixture thereof. In certain percentages they form an explosive mixture. It is stored in pressurised recipients in liquid form.

MERCAPTAN GAS

Stench gas, gives a “warning” with its rotten egg odor (mercaptan or a similar sulfide-based compound) that can be easily detected by most people.

NATURAL GAS

A mixture of hydrocarbons in a gaseous state that may manifest itself in its natural state as Associated Natural Gas and Non-Associated Natural Gas. Can be wet if it contains Condensate, or be dry if it doesn't.

ASSOCIATED NATURAL GAS

Natural Gas that is produced together with oil, which was dissolved in it or formed a layer on an Oil reservoir.

SUPERVISED NATURAL GAS

Natural gas produced in a contractually agreed area and measured at an Inspection Point.

LIQUID NATURAL GAS (LNG)

Natural Gas converted to a liquid state by cryogenic processes or others that only change its physical nature, being considered for all intents and purposes, a Natural Gas.

NON-ASSOCIATED NATURAL GAS

A gas found in a natural reservoir, where, under earlier conditions, no Liquid Hydrocarbon Gases were present.

DRY GAS

A natural gas, whose water content has been removed through a process of dehydration.

GREENHOUSE GASES (GEIS):

Chile: Gases that are an integral part of the atmosphere, that absorb and emit radiation at certain wavelengths of the infrared radiation spectrum, emitted by the Earth's surface, atmosphere, and clouds. This property causes the greenhouse effect. Water vapor (H₂O), carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄) and ozone (O₃) are the main greenhouse gases in the atmosphere. In addition, there are a number of greenhouse gases produced by humans such as halocarbons and other substances containing chlorine and bromine, which are dealt with by the Montreal Protocol.

GAS PIPELINE

Pipeline used for gas transportation.

LP Gas/LPG

Liquefied Petroleum Gas

LP GAS UNITS

Bolivia: Liquefied Petroleum Gas consisting mainly of a mixture of propane and butane that is sold in Bolivian units according to the characteristics established in the Quality Rules.

LNG

Liquefied Natural Gas

SEVERE DISABILITY

Total permanent disability of a worker, with the need for continued assistance to perform elementary tasks.



H₂S

Hydrogen sulfide, a toxic gas.

HYDRANT

Device used in anti-fire systems, which allows the connection of one or several lines or hoses to a water pipe, under pressure.

HYDROCARBON

Organic, gaseous, liquid or solid compound, consisting mainly of carbon and hydrogen.

SUPERVISED HYDROCARBON

Hydrocarbon produced in a contractually agreed area and measured at a Production Inspection Point

LIQUID HYDROCARBONS

Peru: Generally Oil and its Condensates. As regards Storage of Hydrocarbons and Trading, Liquid Hydrocarbons derived from Hydrocarbons, those considered to be Liquid Hydrocarbons are those whose flash point is greater than 37,88C(1008F), comprising:

- Class II, when their flash point is equal to or greater than 37,88C (1008F) but less than 608C (1408F).

- Class III, when their flash point is greater than or equal to 608C (1408F), but less than 938C (2008F).

- Class IIIB, include those liquids whose flash point is equal to or greater than 938C (2008F).

FLAMMABLE LIQUID HYDROCARBONS

Peru: Liquid hydrocarbon with a flash point lower than 37,88C (1008F) and a vapor pressure not exceeding 2,812 kg/cm² (40 psia) at 37,88C (1008F) shall be called Class I, subdivided in:

Class I A when their point of combustion is less than 22,88C (738F) and its boiling point is less than 37,88C (1008F).

Class I B, when their flash point is lower than 22,88C (738F) and they have a boiling point equal to or greater than 37,88C (1008F).

Class I C, includes those liquids with a flash point that is greater than 22,88C (738F) but less than 37,88C (1008F).



ICONTEC

Colombia: Colombian Institute of Technical Standards

ENVIRONMENTAL IMPACT

The effect that man's or nature's actions cause in the natural and social environment. They may be positive or negative.

COMMERCIAL DEPLOYMENT

In the case of Pipeline Hydrocarbon Transportation, it is the time from which the Dealer makes the first delivery of Hydrocarbons to a User in keeping with a Contract of Carriage, and starts.

IMPORTER IN TRANSIT

Person importing fuels (including LP Gas) into the country, in order to export them to other countries. The Person doesn't sell fuel in the country and is not obliged to maintain inventories.

SPECIFIC FUEL TAX

Chile : Indirect tax which is imposed on fuels for vehicles traveling the streets and public highways, as per Law 18502 and its modifications. Fuels affected are automotive gasoline, diesel oil, compressed natural gas and liquefied vehicular gas. For automotive gasoline and diesel oil, the specific tax is imposed on first purchase or import and corresponds to 6 UTM/m³ and 1,5 UTM/m³ respectively. In the case of compressed natural gas and liquefied vehicular gas, the specific duty is compo-

sed of a fixed annual amount that is paid along with the permission for free circulation and depends on the type and size of the vehicle, with the addition of a variable amount (per unit of volume) that is paid at the fuel pump corresponding to UTM 1.93/m³ and 1.4 UTM/m³ respectively. For industries that use diesel in their production processes it is possible to discount the amount of the specific tax paid on the purchase of fuel from their monthly VAT statement.

WORKERS PERMANENT DISABILITY

Argentina: Damage that causes a permanent decrease in the capacity of a worker.

WORKERS PERMANENT PARTIAL DISABILITY

Incapacity of less than 66%.

WORKERS TOTAL PERMANENT DISABILITY

Incapacity greater than 66%. See also Severe Disability.

WORKERS TEMPORARY DISABILITY

Argentina: Injury that temporarily prevents the performance of routine tasks.

INFERNO

Large fire that destroys something that is not intended to be burned, spreading without control from its point of origin.

POOL FIRE

Combustion of stationary diffusion of a liquid in an uncovered enclosure of a limited size.

INCIDENT

The spillage, leakage or discharge of a Hazardous Material that does not cause a fire, explosion, injury or death, but causes or may result in material or environmental damage.

Argentina: Unwelcome fact that could have resulted in injury to persons, damage to property or losses in the production process. Comprehensive research of an incident allows the use of fundamental data in risk control. Often called "near misses".

INDICATIONS

Presence of crude oil or gas in samples, cylindrical evidence, gravel or the slurry injected in a drilling well.

INSTALLATION

Argentina: Part of the gas pipeline, between a network or a LP Gas facility and the main access to an indoor facility, including the key.

COMPRESSION FACILITIES

Facilities for the compression of gas which consist of compressors, measuring devices and accessories, controls and regulations, facilities for power distribution, pipelines, annexed facilities, security devices and civil engineering works.

HYDROCARBON FACILITIES

Factory, site, structure, equipment or vessel used to search for, produce, process, store, transport, distribute and trade hydrocarbons. The definition includes overground and underground facilities based on the mainland or out to sea.

CHEMICAL INPUT

Product used as raw material in the industry, such as virgin naphtha, aromatic hydrocarbons, etc.

SHUTTLE

In the Sale of LP Gas, this is a manual or automatic device, in the form of a T, used with type 45 cylinders to be able to replace the empty cylinders with other full ones, without interrupting service. It opens and closes the flow of LP gas from the cylinders to the pressure regulator. It is also known as the distribution Te.

INJECTION

A mixture of clay, water and certain chemical products injected continuously during drilling operations. The mud serves to evacuate the cutting or detritus, lubricate and cool the drill bit, support the wells walls and balance the pressure of the fluid contained in the formations. This mud is known as "drilling mud".

FLASH FIRE

Progressive fire of a premixed diffusion, with a low flame speed which doesn't produce a pressure wave.



JACKET

Structure used to support a steel structure during production, all over the coast.

JACK-UP

See "jack-up platform"

ABRASIVE BLASTING

Ecuador: Method for surface cleaning which consists of using steel shrapnel for the propulsion of the cylinder in a blasting chamber, ensuring the surface of the cylinder has great grip and is free from impurities.

FIELD

Surface area beneath which exist one or more reservoirs that are producing or are capable of producing hydrocarbons.

Argentina: Accumulation of oil and/or gas in porous rock such as sandstone. An oil field usually contains three fluids (oil, gas and water) that separate into different

sections according to their weights. The gas, being the lightest, occupies the top of the reservoir, the oil the middle part and the water the bottom.

GAS FIELD / CONDENSATE

A deposit in which neither natural gas nor crude oil are the predominant production flows. To increase the recovery of condensate, the gas must be recirculated during the early years and produced at a later date.

JET FIRE

See "Fire Jets"

JOINT VENTURE

Investment undertaken by a consortium, usually with one member running the operation.



KELVIN

Unit of thermodynamic temperature from the International System of Units, equivalent to the fraction $1/273.16$ of the thermodynamic temperature of the triple point of water.

KERMA

Energy per unit of mass, which transfers a series of uncharged particles to a certain point of a medium, irradiated with those particles. In the form of kinetic energy they appear as charged secondary particles. The term is an acronym of Kinetic Energy Released Per Unit Mass.

KILOWATT-HOUR

Unit of measurement in the electrical industry. A kilowatt-hour is equivalent to 0.0949 cubic meters of gas.



BOOM

Metallic element that connects to the free ends of hoses to an anti-fire network, in order to direct the jet of water.

LIQUEFACTION

Operation that consists of transforming natural gas in the deposit area to a liquid state for the purpose of transporting it.

Mexico: A process in which a gas is subjected to low temperatures and high pressures to turn it into a liquid.

STORAGE PROPERTY LINE

In Hydrocarbon Storage, it is the line that delimits a property in relation to the public highway or a property with third parties.

LINE-PACK

Chile: The volume of gas present in a pipeline at any time, compressed by the operating pressure of the pipeline.

LINE

In Pipeline Hydrocarbon transportation, it is the main piping in the Transportation System.

TANK BASE LINE

In Hydrocarbon Storage, it is the line formed by the intersection of the insides of the bottom plates and the cylinder.

BASELINE

Chile: Description of the area of influence of a project or activity given a "without project" scenario. The area of influence is defined and justified, for each environmental factor affected, taking into account the potential environmental impacts generated by setting up the project. Environmental factors which are part of the area of influence of the project and which give rise to the need for an Environmental Impact Study should be described.

LOAD LINE

In Hydrocarbon Storage, it is the piping that carries the produce of a process to the Tank or Storage Tanks.

DISCHARGE LINE

In Hydrocarbon Storage, it is the piping installed for the exit or discharge of stored fluids.

PROPERTY LINE

In Refining and processing of Hydrocarbons, is the line that delimits the property with public roads or third party properties.

SEISMIC LINE

Path or trail for running a seismic survey.

EXPLOSION SECURE FLASHLIGHTS

Are special lamps whose design prevents an internally produced spark, produced by turning on, turning off or a short circuit, entering into contact with the outside environment.

LIQUID

For purposes of Hydrocarbon Storage it is every hydrocarbon with fluidity greater than a penetration of 300, measured by ASTM D-5. When unable to identify them, the term liquid refers to Flammable liquids and Liquid Fuels.

CRYOGENIC LIQUID

Refrigerated liquefied gas whose boiling point under atmospheric pressure is lower than 908C (1948F).

NATURAL GAS LIQUIDS

Bolivia: The natural gas liquids are essentially the hydrocarbons which can be extracted in liquid form from natural gas as it is produced, can be sold separately, such as mixtures of ethanol, LP gas, pentane, propane, butane and isobutene and some heavy hydrocarbons.

Argentina: Parts of natural gas recovered in liquid form inseparators and gas treatment facilities. The natural gas liquids include ethane, propane, the butanes, the pentanes, natural gas and condensates. Moreover, they may contain in small quantities, products that are not hydrocarbons.

STABLE LIQUID

In Hydrocarbon Storage, it is a liquid that isn't defined as unstable.

UNSTABLE LIQUID

A liquid which in its pure form or in its current state, or when it is sold or transported, could polymerise, condense or react suddenly under conditions of impact, pressure or temperature.

FLAMMABLE LIQUIDS

Argentina: Are liquids, or mixtures of liquids, or liquids containing solids in solution or suspension, that expel flammable vapors at a temperature equal to or less than sixty point five degrees Celsius (60,58C), when tested in a closed crucible, no more than sixty-five point six degrees Celsius (65,68C) and when tested in an open crucible, conform to accepted national or international standards.

REMOTE LOCATION

Peru: In Hydrocarbon Storage, it is a location that is 1200m or more from, populated or industrial areas. In the case of oil and gas, the location referred to is for prospecting, drilling, exploitation and treatment up until delivery to refining or processing units.

GROSS PROFIT

The difference between Net Sales and costs related to the production and/or provision of products and/or services sold.

NET PROFIT

The Operating Value after the deduction of the financial results, plus/minus other Non-Operational Income/Expenses, less Tax on profits and plus/minus Minority Interest.

OPERATING PROFIT

Corresponds to Gross Profit less Management and Trading Expenses, less Prospecting Expenses, plus/minus Non-Circulating Investment Income and plus/minus Other Operating Income/Expenses.



DESIGN MANUAL

Peru: In the case of Hydrocarbon Pipeline Transport, it is the document that includes the flow calculations, the specifications, overall project plans, general materials and equipment specifications and general construction equipment and specifications.

OPERATING AND MAINTENANCE MANUAL

Peru: In Pipeline Hydrocarbon Transportation, it is the document containing detailed procedures for the operation of the Transport System, as well as procedures and plans for maintenance of the facility.

CONSTRUCTION MANUAL

Peru: In Pipeline Hydrocarbon Transportation, it is the document that contains the specific safety standards for construction and testing of the Stations, the Line and other facilities of the Transport System. It includes security aspects related to the construction of the Transport System.

BRAND

Colombia: Set of alphanumeric characters inscribed indelibly on the cylinder, which meet the technical requirements, established for this purpose by the Ministry of Mines and Energy that make it possible to identify the owner distributor of the cylinder and who is responsible for the safety as defined in the regulation.

HAZARDOUS MATERIAL

Material that poses danger beyond that related to its Flash Point or Boiling Point. This includes, danger to the worker, general public or the environment that can be a result of their toxicity, corrosivity, instability, etc.

MBOE/D

Thousands of barrels of oil equivalent per day.

MCF

Thousands of cubic feet

MCF/D

Thousands of cubic feet per day

SLIDING TUBE GAUGE

Indicator of variable fluid level in which a relatively small positive closing valve is located at the extreme outer edge of a straight tube, usually installed in a vertical manner that communicates with the interior of the recipient.

FIXED LIQUID LEVEL GAUGE

Liquid level indicator that uses a positive closure valve vent to indicate that the liquid level of a recipient being filled has reached the minimum point at which this indicator communicates with the liquid level on the inside of the recipient.

MAXIMUM FIXED LIQUID LEVEL GAUGE

Fixed liquid level gauge that indicates the liquid level at which the recipient is filled to the maximum level allowed.

FLOATING GAUGE

Gauge built with a meter installed on the inside of the recipient, which floats on the surface of the liquid and transmits its position to a device positioned outside the recipient, indicating the liquid level.

ROTARY GAUGE

Variable liquid level indicator that consists of a small positive closure valve vent located on the outer end of a tube which has one curved end inside the recipient and which can be rotated manually to determine the level of liquid in the recipient. It is equipped with a pointer and an outer dial to indicate the liquid level. It is customary to also call it the "rotary".

VARIABLE LIQUID LEVEL GAUGE

Device for indicating the level of liquid in a recipient over a range of levels.

SPOT MARKET

Peru: International market where oil or its derivatives are sold for immediate delivery at a current price ("spot" price).

Bolivia: International market where oil or its derivatives are exchanged for immediate delivery at the current price (the "spot price").

CUBIC METRE (M₃)

A measurement of volume from the Metric Decimal System, equivalent to 6,289 barrels and 264,170 American gallons.

STANDARD CUBIC METER (m₃ (ST))

Quantity of Natural Gas that occupies a cubic meter (m₃) at a temperature of fifteen degrees centigrade (158C) and an absolute pressure of one thousand and thirteen (1013mbar).

GAS MIXER - AR

Device or system of pipes and controls that mixes LP Gas vapor with air to produce a mixed gas of a lower calorific power than the LP Gas.

MIGRATION

Displacement of oil through rocks. Primary migration is the movement of crude from the mother rock to the reservoir rock. Secondary migration is the displacement of oil from the reservoir rock to the trap where it accumulates.

MMBL

Millions of barrels.

MMBOE

Millions of barrels of oil equivalent.

MMCFD

Millions of cubic feet of gas per day

WINCH

Equipment used to lift weight with a steel cord in the Exploration and Exploitation of Hydrocarbons.

AUTOMATIC MULTIVALVE CONNECTION(FAST CONNECTION)

Venezuela: Accessory used in cylinders with a capacity of up to 10 kg of LP Gas, whose service and filling connection requires no tools for connection with the regulator.

MECHANICAL MULTIVALVE CONNECTION

Venezuela: Accessory used in LP Gas cylinders, whose service and filling connection requires appropriate tools to connect to the regulator, directly, in the case of cylinders of up to 10kg capacity, or by means of a flexible mechanical connection "Pigtail" for larger cylinders.

CLIMATE CHANGE

Important statistical variation in the state of the climate or in its variability, which persists for an extended period (usually decades or more). Climate change may be due to internal natural processes or forcible external changes, or persistent anthropogenic changes in the composition of the atmosphere or in land use. It should be taken into consideration that the UN

Framework Convention on Climate Change (CMCC), in Article 1, defines "climate change" as "a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods." The UNFCCC distinguishes between "Climate change", attributed to human activities altering the atmospheric composition, and "climate variability", attributed to natural causes. See also Climate Variability.



N

VIRGIN NAFTA

A refinery derivative being used as a raw material in the petrochemical industry. The product is not employed as an energy source.

OIL TANKER

Mexico: Ship divided into compartments which are used to transport crude oil and/or its derivatives. It is a means of transport with a relatively low operational unit cost and facilitates large economies of scale. However, the infrastructure requirements are large and expensive, both for the acquisition of the tanker and for requisite port repairs. It is a very suitable means of transport when moving large volumes for great distances.

NEC (National Electric Code)

The US National Electric Code

MAXIMUM PERMISSIBLE LEVEL

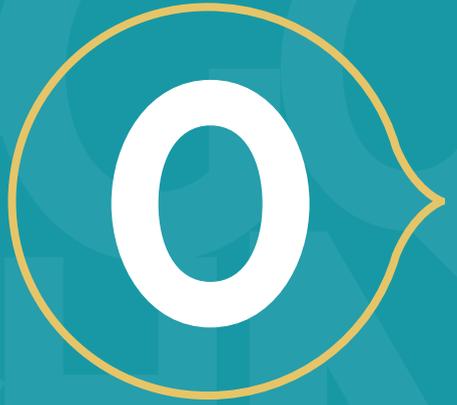
Degree of concentration of an element or substance that is potentially dangerous for human health and survival as well as that of flora and fauna.

NEW INSTALLATION

In Pipeline Hydrocarbon Transportation, it is any Enlargement or Extension of Transport in accordance with the Conditions of Access.

NTP (Norma Técnica Peruana)

Peru: Peruvian Technical Standard



NEGOTIABLE REQUIREMENT (BONUS)

Debt instrument issued by a company or government entity. Generally issued as Shares or in self-regulated markets and can be purchased by the general public. They typically pay interest regularly and capital is repaid in instalments or in its entirety at a pre-established date.

OCTANE

A conventional scale index used to identify numerically the anti-detonating properties of naphtha.

ODORANT

Bolivia: Substance such as mercaptan, with a characteristic odor, which is added to odorless natural gas or natural gas liquids when they are used as fuels in order to allow their detection.

OFF SHORE

English term which means off the coast. Refers to oil activities on the continental shelf and in international waters.

OLEFINS

Group of hydrocarbons, including ethylene and propene of particular importance for the chemical industry.

PIPELINE

Piping, usually underground, used to transport oil for short and long distances. For longer distances, pumping stations are used.

ON SHORE

English term meaning on land or inland from the coast and is used to represent oil activity carried out on land.

OPEC

Acronym for the Organization of the Petroleum Exporting Countries

OPERATION

In Hydrocarbon Storage it is a general term which includes, but is not limited to, the transfer, storage and processing of liquids.

SUPPLY UNIT OPERATOR

Person responsible for operating a Supply Unit.

OSINERGMIN

Peru: Supervisory Agency of Investment in Energy and Mining.



PARAFFINS

Waste extracted after dewaxing lubricating oils, known in other countries as petroleum wax. Its main features are that it's colorless, odorless and translucent.

MANOEUVERING YARD

Area where trucks can make the low speed maneuvers necessary to load and unload goods or cylinders with a degree of comfort.

PEAK-SHAVING

Argentina: English term used to refer to reserves, natural or artificial, suitable for storing gas and ensuring its supply during critical periods or during peak consumption. It literally means slicing or brushing a cusp or a peak.

BREATHING LOSSES

In Hydrocarbon Storage, it is the loss associated with the expansion and contraction of the space occupied by vapors as a result of daily temperature cycles or any other temperature cycle in the environment.

WELL PROFILING

Technique that allows measurement of petrophysical characteristics, geological formations and fluids contained throughout the Well, whose interpretation may enable a prediction about hydrocarbon potential. It is controlled from the surface, and the information helps decision-making regarding Completion and Reconditioning operations. The product to be derived is a Well

Profile or Well Register.

DRILLING

Operation consisting of drilling underground with the aid of appropriate tools to find and extract oil.

PERMEABILITY

Capacity of a rock to allow fluids to flow through it.

PERUPETRO S.A.

Peru: National Hydrocarbons Agency

PERSON

A natural person or a legal entity, either a national or a foreigner.

COMPETENT PERSON

Person who has the necessary academical training related to Hydrocarbons for the performance of a particular process or operation of a unit type or piece of equipment or to deal with an emergency situation, who has been duly authorized by his/her institution to perform this work.

OIL

Mixture of hydrocarbons which are found in a liquid state within a reservoir, given its pressure and temperature conditions, and generally remain in a liquid state at

atmospheric conditions. This does not include condensates, Natural Gas Liquids or Liquefied Natural Gas.

CRUDE OIL

Oil that has not been through any refining process yet.

RAW OIL

Hydrocarbon mixture with a flash point of less than 65,68C and has not been processed in refineries.

DRAINED OIL

In Hydrocarbon Storage, it is any Hydrocarbon, refined or not, that is out of specification because of contamination or refining errors.

PETROCHEMICAL INDUSTRY

Chemical industry using hydrocarbons or derivatives thereof as raw materials from which they produce chemicals for industrial or commercial use.

BASIC PETROCHEMICAL INDUSTRY

Petrochemical industry that performs the first conversion of hydrocarbons.

DAILY PEAK

The maximum volume of gas delivered in any one day during a specified period (usually one year).

POOLS OR LARGE POOLS

Surface cavities either natural or manmade, in the vicinity of wells or water separators, where mixtures of oils and saltwater that originated from spills during perforation or oil purges during extraction, are deposited.

EVACUATION PLAN

The set of actions for evacuating an area or facility, rectifying any adverse environmental conditions and implementing the reconditioning required to return the area back to its natural state or to leave it in an appropriate condition for new use. This Plan includes measures to be adopted to avoid adverse environmental effects of solid, liquid or gaseous waste which may exist or that may emerge afterwards.

CONTINGENCY PLAN

Peru: A plan detailing the actions to be carried out in case of emergencies such as spills, leaks, fires, natural disasters, etc. It should include the following information:

1. The relevant organization and the procedure for controlling the emergency.
2. The procedure to be followed to report the incident and to establish communication between staff at the location where the emergency took place, the executive staff of the establishment, OSINERGMIN, the General Directorate of Hydrocarbons and other entities, as is required.

3. Procedure for training staff at the establishment, in emergency and response techniques.

4. General description of the operational area.

5. List of the type of equipment to be used to deal with emergencies.

6. List of people (employees or contracted staff) who are part of the response team, including medical support, logistics and other services.

ENVIRONMENTAL MANAGEMENT PLAN

An operational plan that includes the implementation of environmental practices, preparation of mitigation, risk prevention and contingencies. Furthermore, the implementation of environmental information systems for the development of operation units or projects to meet with environmental legislation and ensure that established standards are attained standards.

JACK-UP PLATFORM

Drilling platform in shallow waters that is not supported on the seabed.

CYLINDER PLATFORM

Platform with adequate facilities for the storage of full and/or empty cylinders.

SEMI-SUBMERSIBLE PLATFORM

Drilling platform in deep water which is not supported on the seabed.

WELL

Cavity in the earth's crust resulting from drilling carried out to discover or produce Hydrocarbons, inject water or gas or from other goals.

ABANDONED WELL

A Well that will not be active again because it's dried up, stopped producing or for some other reason can no longer be operational. It needs to be properly sealed with plugs, to prevent the leakage of fluids contained therein, from one reservoir to another, or to the surface.

ARTESIAN WELL

A Well in which water or oil flow to the surface without the use of pumps, because the reservoir's pressure is greater than hydrostatic pressure, raising the fluid to the surface.

CALORIFIC POWER

Mexico: The quantity of heat produced by complete combustion of a flammable substance. This may be measured when dry or saturated with water vapor; "net" or "gross". The term "gross" means that the water vapor produced during combustion has been condensed into liquid, thus freeing its latent heat. On the other hand, "net" means that the water remains

in vapor form. The convention is to use the terms "seca" and "bruta".

Bolivia: The amount of heat produced by the complete combustion of a fuel. It can be measured when dry or saturated with water vapor; net or gross. ("Gross" means the water produced during combustion is condensed into liquid, thus releasing its latent heat; "Net" means that the water remains as vapor). The general convention is to call them 'seco' or 'bruto'.

POLYDUCT

Argentina: A pipe or duct that is used to alternately or simultaneously transport different liquid, gaseous or semi-gaseous products.

Peru: Pipe used to transport petroleum products and petrochemicals.

POLLUTION

Action that results in the introduction of pollutants to the environment.

POLLUTANT

Material, substance or energy which, when combined with or acting on the environment, degrades its original quality to levels not suitable for the health and well-being of humans, endangering natural ecosystems.

POINT OF SALE (refilling station, gas station)

The entire facility dedicated to the discharge of fuels by pump.

LOADING POINT

In Hydrocarbon Commercialization, they are the Despatch Points.

BOILING POINT

The temperature at which a fluid exerts a vapor pressure of 1,033 kg/cm² abs (14,7 psia).

Argentina: The temperature at which a liquid is converted into vapor. It is the temperature at which the liquid matches the pressure exerted on it. It varies according to the pressure to which the liquid is subjected. The boiling point of a liquid is the temperature at which it boils at atmospheric pressure.

Given normal atmospheric pressure, pure propane boils at -42°C (-44°F), butane at -0.55°C (31°F), as compared to water which boils at 100°C (212°F).

INITIAL BOILING POINT OF MIXTURES

The temperature of the mixture at which the first bubbling or boiling begins.

DELIVERY POINT

In Pipeline Hydrocarbon Transportation, it is the point at which the Dealer delivers the Hydrocarbons to the User.

POURING/FLOWING POINT

The lowest temperature at which a liquid can flow.

FLASH POINT

The minimum temperature of a given Liquid, at which sufficient vapor is produced to form an explosive mixture with air, next to the surface of the Liquid or within the recipient used, as defined by suitable procedures and equipment.

DELIVERY POINT

In Pipeline Hydrocarbon Transportation, it is the point at which the Dealer's freight receives the Hydrocarbons.

CONDENSATION POINT

A vapor's condensation point is the point at which its condensation begins, assuming a given temperature (and pressure). Obviously the condensation point of a simple pure compound vapor is the same as the boiling point of the corresponding liquid at a given pressure.

LP GAS CYLINDERS POINT OF SALE

Colombia: Facility for the sale LP Gas cylinders to end users, located inside the buildings of another business establishment, not devoted exclusively to this activity, which was authorized for this purpose by the Ministry of Mines and Energy and has the existing approval of the competent authorities.

STATION

Peru: Establishment for Selling Liquid Fuels to the Public, dedicated to exclusively selling fuel through fuel pumps and/

or distributors. It can sell kerosene subject to other material specific legal provisions. Likewise, it may sell lubricants, filters, batteries, tires and automotive accessories.

AUTOMOTIVE LIQUEFIED PETROLEUM GAS STATION FOR INTERNAL SUPPLY

Argentina: Facility composed of LP Gas storage tanks, a supply system and other components that a company uses for internal supply of Automotive Liquefied Petroleum Gas to its own automotive fleet.

GAS STATION

Peru: Establishment for Selling Liquid Fuels to the Public, exclusively selling through fuel pumps and/or distributors, that also offer other services in appropriate facilities, such as: a) Cleaning and lubrication b) Oil Changes & Filters c) Sale of tires, lubricants, additives, batteries, accessories and other related items; d) Tire replacement, repair, alignment and balancing; e) Automotive maintenance work; f) Sale of their own items at a small store; g) Sale of LP Gas in cylinders for domestic use, complying with the requirements set out in existing and specific Regulations; prohibiting the filling of LP Gas cylinders for household use h) Sales of LP Gas for automotive use, subject to specific regulations; i) Sale of kerosene, subject to specific legal provisions; j) Any other activity or business linked to the provision of services to the public at their facilities which doesn't interfere with its normal operation or affect the establishment's security.

LP GAS STATION

Fixed facilities where LP Gas is stored and shipped in portable recipients. The key feature that differentiates the fuel dispensers for vehicles and industrial or bulk gas stations, is that people (other than employees) also have access to the facility.

POROSITY

In the case of sedimentary rocks, it is the empty space between the grains, including cementation if applicable. It may be present in igneous rocks as a consequence of their genesis or fractures.

MAXIMUM REGULATED PRICE OF LP GAS

Colombia: It is the maximum price, across the board, that the distributor pays for LP Gas, delivered by the wholesaler at the entry point to the transport system or for direct delivery to their premises when adequate, in accordance with the conditions and quantities agreed in a firm contract concluded between them. This price is established by CREG for each point of supply as indicated in its Resolution.

PARITY PRICES

Chile: The average price observed in relevant international fuel markets, including costs of transportation, insurance and others when applicable.

VAPOR PRESSURE

The absolute pressure, measured in pounds per square inch (psia), exerted by liquid vapors; in accordance with ASTM D323 standards, the standard method of Vapor Pressure Test for Petroleum Products (NFPA 30).

REID VAPOR PRESSURE

A measure of the vapor pressure exerted by a gasoline when air is at a temperature of 37,88C (1008F).

FIRST AID

Care and immediate actions that should be directed towards an injured, stricken or sick person, up until they receive care from a specialized doctor, if necessary.

WORK PROCEDURE OR SAFETY PROFILE

Establishes a sequence of actions, the correct form of executing said actions, the security equipment required and other information needed to accomplish every specific job safely.

PROCESS

In Hydrocarbon Storage, it constitutes an integrated sequence of operations which may be physical or chemical. The general term includes separation, distillation, preparation, purification, state change, polymerization, cracking etc., this list not being exhaustive.

PRODUCTION

Activity whose purpose is the flow and handling of Hydrocarbons. It includes the operation of Wells, equipment, piping, Hydrocarbon processing and measurement and all kinds of primary and enhanced recovery operations, up to the Inspection Point.

SUPERVISED HYDROCARBON PRODUCTION

Hydrocarbons that are produced in a determined Contract Area, measured and monitored under the agreed terms and conditions of each Contract.

REGULATED PRODUCT

Bolivia: Any product derived from hydrocarbons that has a regulated final price. Regulated products are: Premium Gasoline, Special Gasoline, Grade 100 Aviation Petrol, LP Gas, Kerosene, A-1 Jet Fuel, Diesel and Fuel Oil.

ENVIRONMENTAL SUITABILITY AND MANAGEMENT PROGRAM

The program that describes the actions and investments needed to meet the Environmental Protection Regulation for Hydrocarbon Activities.

RISK MANAGEMENT PROGRAM

A program that lasts a year and contains objectives and activities to be developed during this period focused on achieving and maintaining excellent security conditions.

MONITORING PROGRAM

Systematic sampling, using appropriate technology and methods for the surroundings in which the study is conducted, based on protocols issued by MEM. The aim is to evaluate the environmental quality and the qualities of tributaries and emissions released into the environment.

PROPANE

Peru: Open-chain hydrocarbon which has three (3) carbon atoms.

Chile: Organic chemistry compound containing 3 carbon atoms. It is one of the main components of liquefied gas and is also used, in combination with air (Propane air), as a substitute for natural gas.

Bolivia: Gas, one of the components of natural gas. Hydrocarbon that can be found in small quantities in natural gas. It consists of three carbon atoms, and eight hydrogen atoms; and takes a gaseous form under normal conditions. It is used as an automotive fuel, for cooking and heating. Under atmospheric pressure, propane liquefies at -42°C .

ENVIRONMENTAL PROTECTION

The set of human, social, technical, legal and economic actions, whose purpose is to protect influential areas. This is done by conducting Hydrocarbon Activities in such a way as to prevent the areas deterioration to harmful levels which affect the ecosystem, health and threaten human welfare.

CATHODIC PROTECTION

A technique for preventing corrosion of a metal surface by converting this surface into the cathode of an electrochemical cell.

MONITORING PROTOCOL

In Environmental Protection in Hydrocarbon Activities, it is the document that establishes specific mandatory procedures to be followed by the different companies performing these activities, so that they obtain comparable results.

PSIA

Pounds per square inch absolute. The reference point is zero (0) pounds of absolute pressure or a total vacuum (0,0 psig = 14,7psia).

PDVSA (Petróleos de Venezuela S.A.)

Venezuela: Venezuelan State Oil Company



QUALIFICATION (OF OIL COMPANIES)

A judgement, under prior review, of the technical, legal, economic and financial capacity of an oil company to initiate its contractual obligations, depending on the characteristics of the requested area, anticipated investment required and strict compliance with environmental protection standards.

BURNER

Apparatus for facilitating the combustion of coal, liquid motor fuels or gases in places with boilers or other thermal facilities.

FIELD BURNER

Device for safe and controlled burning of gas that is not being used for commercial or technical reasons. Usually used in the case of accidents such as overturned trucks and more generally when it's not possible to transfer or remove vapors.

VAPORIZING BURNER

Burner that also vaporizes liquid LP Gas before burning it. It is also often referred to as an "auto-vaporizing liquid burner".

KEROSENE

A medium light oil derived from oil refining, intermediate between diesel and gasoline, used for lighting and heating and also for jet plane engine fuel and turbo-charged propeller engines.

KILOCALORIE

A thousand calories. A unit of heat used in the chemical process industry.

KILOGRAM

Unit of mass from the International System of Measurements. It is equal to the mass of the international kilogram prototype stored at the International Bureau of Weights and Measures in Paris.



BRANCH/OFFSHOOT

A secondary pipeline, connected to the original pipeline, which allows the Transport of Hydrocarbons to different points than those on the original pipelines route.

PIPE SCRAPER

Tool used to: a) Separate products (separating pipe scrapers, sphere); b) Perform internal pipe cleaning (cleaning pipe scrapers) c) Inspect the degree of corrosion, defects and their location on the Transportation System Line (smart pipe scrapers) d) Determine the spatial location of the Line (Inertial Navigation pipe scrapers).

RECIPIENT

Any recipient, including cylinders, tanks, portable tanks and cargo tanks, used to transport or store LP gas.

PITCHED RECIPIENT

Recipient that meets the ASME requirements, designed to be used underground, installed above the minimum depth required for underground service and covered with earth, sand or another material; or a recipient that meets the ASME requirements, designed for surface use, installed above the level and covered with earth, sand or another material. Includes cylinders, tanks, portable tanks and cargo tanks used to transport or store LP Gas.

MOBILE RECIPIENT

A recipient that is permanently installed and connected to a vehicle, for distinct motor fuel supply uses.

PORTABLE RECIPIENT

Recipient designed to be moved easily, different to those designed for fixed installations. Portable recipients, designed to be transported, include drums, cargo tanks and portable tanks. Recipients that are designed to move easily from one point to another, but are essentially devoid of product are called portable storage recipients.

LP GAS DISTRIBUTION NETWORKS

Networks that manage the flow of LP Gas from the recipient to the point of consumption.

REFINERY

Bolivia: A complex comprised of facilities in which crude oil is separated into light and heavy fractions which are converted into usable products or inputs.

Chile In the oil industry, it is a unit that transforms crude oil into derived or refined products. In an oil refinery, the main processing unit performs primary distillation, and it defines the size of the remaining units. The main derivatives are liquefied gas, gasoline, kerosene, diesel oil, fuel oil, solvents and asphalt. Existing

refineries in Chile are the Aconcagua Refinery, Bio Bio Refinery and Gregorio Refinery, belonging to the ENAP group.

Mexico: Work center where crude oil is transformed into its derivatives. This transformation is achieved through the processes of: atmospheric distillation, vacuum distillation, hydrodesulfurization, thermal disintegration, catalytic cracking, alkylation and catalytic reforming, among others.

Peru: A plant in which oil, natural gasoline or other sources of Hydrocarbons are converted into liquid fuels. This may include the development of different products that are not fuels, like Lubricants, Asphalts and Tars, Solvents, etc.

REFINERY WITH A HYDROSKIMMING SCHEME

A refinery with a setup that only includes distillation, reform and some hydrotreating.

HYDROCARBON REGISTER

Peru: A unified constitutive register where people involved in Hydrocarbon Activities enroll.

COMPREHENSIVE INTERNAL SAFETY REGULATIONS

Developed by the Authorized Company, these are regulations containing rules and provisions relating to each Hydrocarbon Activity, in order to regulate ongoing work, for it to develop in optimal safety conditions.

PRESSURE REGULATOR

Device designed to reduce and maintain constant outlet pressure at a nominal value, within certain specified limits.

HIGH PRESSURE REGULATOR

Pressure regulator for use with liquid or vapor LP Gas service, designed to reduce the inferior pressure of a recipient to more than 1.0 psig.

AUTOMATIC CHANGEOVER REGULATOR

Integral two stage regulator that combines two high pressure regulators and a second stage regulator in the same unit, designed for use in multiple cylinder facilities.

SINGLE STAGE REGULATOR

Pressure regulator to be used with LP Gas vapor, designed to reduce the pressure of a recipient to 1.0 psig or less.

LINE PRESSURE REGULATOR

Pressure regulator, to be used with LP Gas vapor, that doesn't include a protection device for excess pressure, designed for installation inside a building to reduce the nominal entry pressure from 2-psi to 14 inches of water(4 kPa) or less.

FIRST STAGE REGULATOR

Pressure regulator used with LP Gas vapor, designed to reduce the pressure of a recipient to 10.0 psig or less.

FIRST STAGE REGULATOR

Pressure regulator used with LP Gas vapor, designed to reduce outlet pressure of the first stage regulator to 14 inches of water (4 kPa) or less.

GAS/OIL RELATIONSHIP

Volume of gas produced by a well for every cubic meter of oil produced simultaneously

FAVORABLE TECHNICAL REPORT

Peru: A report issued by OSINERGMIN to indicate that a facility or Mode of Transportation complies with the requirements

set out in their standards.

RESERVES

Argentina: Consist of the estimated volume of crude oil, natural gas, liquid natural gas, and other associated substances considered to be commercially recoverable from known accumulations, in accordance with prior knowledge and under existing economic conditions, using established operational practices and following the laws and regulations in force at the time. The information needed to estimate these reserves is obtained from geological interpretations and/or engineering data available at the time of the estimate.

POSSIBLE RESERVES

Hydrocarbon Reserves where the chance of recovering hydrocarbons is lower than those that are Proven and Probable.

PROBABLE RESERVES

Estimated Hydrocarbon Reserves, with a low degree of probability, insufficient to determine if the Hydrocarbons can be recovered.

PROVEN RESERVES

Peru: Quantities of hydrocarbons, estimated on a specific date, whose existence is demonstrated with reasonable certainty by geological and engineering information, and which can be recovered under existing economic conditions, methods of operation and governmental regulations.

Venezuela: Volumes of gaseous hydrocarbons that are estimated to exist in wells, with reasonable levels of certainty and may be produced under existing technological and economic conditions.



SATURATION

Volume of oil or gas in a rock with respect to the volume of water.

FLOATING ROOF SEAL

In Hydrocarbon Storage, it is the mechanism that seals the space between the edge of the floating roof and the Tank cylinder.

SAFETY

The safety discipline is the combination of technical standards and applicable national and international provisions, aimed at preventing, eliminating or controlling the possible causes of accidents, environmental damage, industrial hazards and occupational diseases which a worker is exposed to in Facilities, in Hydrocarbon Activities and their areas of influence.

SECURED AGAINST EXPLOSION

A facility or element constructed in such a way, that when gases are eventually introduced, any gas explosion produced, can't spread to the outside. This type of element doesn't have to be watertight or water-proof. These elements or facilities are also called "anti-explosive".

SEPARATOR

Device placed between the well and the tank courtyard to separate the crude oil, natural gas and water.

SERVICE

In Pipeline Hydrocarbon Transportation, it is the Service provided by the Dealer through the Transportation System for the Pipeline Distribution of Hydrocarbons, it is the Service provided by the Dealer through the Distribution System.

FIRE PROTECTION SERVICE

Organization or service that has trained personnel to operate equipment for fire control and other emergencies. The service is related to the type, size and location of the facility.

FIRM SERVICE

In Pipeline Hydrocarbon Transportation, it is the condition that the Dealer will provide an uninterrupted flow of Hydrocarbons, up to the contracted volume, subject to the Contract of Carriage.

INTERRUPTIBLE SERVICE

In Pipeline Hydrocarbon Transportation, it is the condition that the Dealer can interrupt the flow of Hydrocarbons at their discretion, subject to the Contract of Carriage.

OUTDOOR SERVICES AND AREAS

In Hydrocarbon Refining and Processing, they are systems for the generation and distribution of industrial services needed for the operation of processing units, such as vapor, electricity, treated and untreated water, as well as, storage systems, effluent treatment, burners, etc. which are located outside the Processing Units.

TAG SYMBOL

Colombia: Symbol that is put together with the distributors brand on cylinders, which constitutes, for all intents and purposes, the identifying image of the new LP Gas service plan, through the branded cylinders, which are the property of the distributor. The tag symbol is defined by CREG in a separate resolution.

SYNDICATE

Association of workers that fulfil their roles in the same place or entity formed for the study, improvement and protection of their common interests.

DISASTER

Any unexpected event that causes severe damage to equipment and facilities used for Hydrocarbon Activities, or considerable losses in the production process, etc. Among the main disasters that may require claims reports are the following:

- Fires
- Explosions
- Earthquakes
- Oil Spill
- Chemicals Spills
- Aerial Disasters
- River Disasters
- Land Disasters
- Epidemics / Extensive Poisoning
- Attacks / Sabotages
- Terrorist attacks
- Civil unrest, riots.

Argentina: Unexpected and violent contingency that affects the normal functioning of a system, destroys property and/or produces victims. This term is also used for fires of infernos.

SEISMOGRAPH

Apparatus used for detecting and measuring seismic waves.

ENVIRONMENTAL IMPACT ASSESSMENT SYSTEM (SEIA):

Chile: Consists of a set of procedures involving the owner of a project or activity and the environmental authority, in an Environmental Impact Statement or an Environmental Impact Study, to demonstrate that the project complies with environmental standards, or that it tackles the environmental impacts it generates. The authority, for their part, must check and ensure compliance with those standards and assess the relevance and quality of proposed measures. This is done prior to the execution of the project.

VAPOR HANDLING SYSTEM

In Hydrocarbon Storage, it is the system designed to capture and process liquid vapors displaced during filling operations.

COLLECTION AND RE-INJECTION SYSTEM

In Exploitation of Hydrocarbons, it is the set of pipes, equipment and facilities used by the Contractor to collect and transport the Hydrocarbons that they produce, to the Receiving Point or the inspection

point, or to be re-injected into the fields.

VAPOR RECOVERY SYSTEM

In Hydrocarbon Storage, it is the system designed to capture and retain, without processing, the liquid vapors displaced during filling operations.

TRANSPORT SYSTEM

Set of movable and immovable property, including all pipes, works, equipment and facilities required for Pipeline Hydrocarbon Transportation.

LP GAS TRANSPORT SYSTEM

Colombia: Set of pipelines and other associated assets required to carry out LP Gas transportation, between a Receiving Point and a Carrier's Delivery Point, which are remunerated through deposits regulated by CREG.

FIXED TANK SYSTEMS

Ecuador: Fixed or stationary tank and recipient, which, given its overall volumetric capacity, size and weight, should remain fixed in place and will not change its location, condition or place. The stationary tanks for residential use come in 0.3, 0.5, 1, 2, 2.8, 4, 5 and 7 m³ sizes. Larger tanks are generally used in industrial installations or bottling units. These are filled on site and therefore have a number of accessories which offer security, protection and service.

RISKY SITUATION

A situation that can arise from an explosion or a sudden burst of fire, such as: inappropriate ventilation in confined spaces, lack of drainage or dykes to control spills, lack of emergency ventilation in Hydrocarbon Storage Tanks, among others.

LANDOWNER

Argentina: The owner of the land where search operations, exploitation and hydrocarbon transportation are carried out.

INERT SUBSTANCE

Chemically non-reactive substance (gas).



TANK

Peru: Any type of storage with a capacity exceeding 277 liters (60U.S.gal).

PRESSURE TANK

Used for liquids with a vapor pressure greater than or equal to 0,914 kg/cm² abs (13 psia) at sea level. Can be horizontal cylinders, vertical cylinders, spheres, spheroids or spheroids with a dome, at ambient or chilled temperatures.

ATMOSPHERIC TANK

Storage Tank that is designed to operate at pressures ranging from atmospheric pressure up to pressures of 1.0 psig (760mm Hg to 812 mm Hg) measured at the top of the Tank.

ATMOSPHERIC TANK WITH A FIXED ROOF

A tank that can have a self-supporting roof or columns, the surface of the roof can

be dome or cone shaped. The Tank operates with a space for vapors, which changes when the liquid levels are varied. The fixed roof Tank is used to store liquids that are not required.

ATMOSPHERIC TANK WITH A FLOATING ROOF

A tank whose roof floats on the surface of the liquid, eliminating the space for vapors. The main types of floating roofs are: simple covered roofs with pontoons, double covered roofs with pontoons, and in-

ternal floating roofs, which in turn can be divided into rigid internal floating roofs and floating sheets.

MECHANICAL INTEGRITY TEST

Evaluation of different components of a Well, such as cementation, coating pipes, injection pipes and plugs, to verify that the injected water isn't flowing to unforeseen formations.

NONDESTRUCTIVE TESTS

Tests for the inspection of steel pipes in order to find imperfections using radiography, ultrasound or other methods that do not damage, stress or even break the material.

HOT TANK

Tank operated at higher temperatures than 1218C (2508F).

STORAGE TANK

Any recipient with a Liquid capacity exceeding 277 liters (60gal U.S.), used in fixed facilities that is not used for processing.

LOW PRESSURE TANK

Storage designed to maintain an internal pressure that is greater than 0,035kg/cm² but less than 1,055 kg/cm² (0,5-15,0 psig), when measured at the top of tank.

CARGO TANK

Recipient for the carriage of liquids, that is permanently installed on a vehicle.

STATIONARY TANK

Colombia: Recipient used to provide Liquefied Petroleum Gas supply domestically, with a capacity greater than 46 kilograms (kg) of LP gas, for storage of this fuel on the premises of the end user, which can be of Type 1 or Type 2, and which complies with the current Technical Regulations issued by the Ministry of Mines and Energy.

BURIED TANK

A tank or recipient that is completely buried under ground level of, is covered with solid material and is exposed to occasional pressure caused by the thrust or weight of the material around it.

MOBILE TANK

A recipient used for temporary activities.

CARGO TANK

Recipient used to transport LP Gas as liquid cargo, which is mounted on a conventional truck chassis which is an integral part of a freight transport vehicle. Also called a "cistern".

REFRIGERATED TANK

Tank that stores Liquid Hydrocarbon at a temperature below air temperature, with or without the aid of cooling, by evaporating the contents of the tank or through the circulation of a cooling system.

TRAILER TANK

A vehicle without its own means of propulsion, equipped with a cargo tank and constructed in such a way that when it is hauled by a tractor truck, part of its weight is distributed over the propellant vehicle.

SURFACE TANK

One whose lowest side is level with or on the ground on which it is installed.

FIXED SURFACE TANK

A tank whose side walls and ceiling are in direct contact with the atmosphere. They can be Atmospheric Tanks or Pressure Tanks, which can also be refrigerated or not.

CLOSED TANK

Tank that is wholly or partially on the ground level, that is fully covered with earth, sand or another suitable material.

RATE OR BASIC RATE

In Pipeline Hydrocarbon Transportation, it is the maximum price that the Dealer will bill for Transportation, on a Basic Service.

TCF

Trillion cubic feet.

T TEST TUBE

In LP Gas facilities, this is a T-shaped accessory which is used to run a hermeticity test. It has an interior female wire (HI) and an HE plug.

PROTECTIVE CEILING

In LP Gas facilities, it is the cover made of non-combustible material that protects the cylinder valves and the Pressure Regulator of the LP Gas Equipment from water, sun, etc.

FLOATING CEILING

The ceiling of a Storage Tank that floats on the surface of the stored liquid.

DOME SHAPED CEILING

Ceiling with a spherical shaped part that is supported by fixed crosslinked structures.

CRITICAL TEMPERATURE

Bolivia: The temperature above which a gas can't be liquefied, regardless of its pressure.

AUTO-IGNITION TEMPERATURE

The temperature at which a mixture of flammable vapors ignites spontaneously; without the need for an external ignition source.

TERMINAL STORAGE

Bolivia: Facilities used by the Wholesale Distributor for storage and sales of products derived from hydrocarbons. For LP Gas, facilities used by the Wholesale Distributor for storage, bottling and sales to retailers.

TONS OF OIL EQUIVALENT

Bolivia: Method to calculate the calorific or working value of different sources of energy in terms of a tonne of oil.

FIRST AID ENCLOSURE

Enclosure designed for urgent or preventive medical care, which has basic diagnostic equipment, instruments for minor surgery, drugs and materials for basic treatment.

TOXICITY

Ability of a substance to cause adverse effects to living organisms.

TOXIC

Substances and preparations which if inhaled, ingested or if they penetrate the skin, may cause serious, acute or chronic risks and even death.

TRANSPORT

Pipeline Hydrocarbon Transportation

CARRIER

Peru: In Pipeline Hydrocarbon Transportation, it is the Person or company who performs the Transport service. Is also the Person or company engaged in the transportation of fuels, from the Refineries to the Supply Units, on to other Supply Units, to Sales Establishments and to Direct Consumers, with their own transportation or using that of third parties. It is forbidden to trade fuels with third parties.

TRANSFER

Operation involving the movement of LP Gas or Liquid Fuel from one tank to another.

MEDICAL TREATMENT

Treatment administered by a professional under the orders of a medical practitioner, in cases of injury, wounds and prolonged disease, that require hospitalization or prolonged outpatient treatment.

TRACEABILITY

The possibility of tracking the history, use or location of an item or an activity through registered documentation. If applied to calibration, it is the quality of a measure which refers to national or international standards, through an unbroken chain of comparisons. When referring to data it is the possibility of following the different steps, counting and collecting information about a measurement or evaluation of an element, process or service.

TREPAN

Tool used to breakdown rocks in order to drill underground to search for oil.

RISER PIPE WITHOUT AN ANODE

Transition set where the installation of polyethylene or polyamide piping or tubing, underground or on the ground level in the exterior of a building, is permitted.

COATING PIPES

Piping that is introduced into the drilled hole and is cemented thus obtaining protection of the wells' walls to allow the flow of fluid from the field to the surface.



SUPPLY UNIT

Facility in a fixed property, at which Fuel and Other Hydrocarbon Derivatives are received, stored, transferred, mixed, mixed with additives and ordered. They are also called Sales Units or Terminals.

FILLING UNIT

Venezuela: A facility duly approved by the Ministry of Popular Power for Energy and Petroleum, for storage, bottling and sale of LP Gas in cylinders and in bulk to distributors or consumers, in accordance with applicable technical standards.

LP GAS BOTTLING UNIT

Special independent establishment at which a Bottling Company stores LP gas, in order to bottle it in cylinders or transfer it to Tank Trucks.

Colombia: Physical infrastructure, comprised of one building, which enables a Distributor of bottled LP Gas to use their own cylinders, or universal cylinders during a transition period, and/or loading tanks intended to serve stationary tanks located in homes of end users. Its technical characteristics must match those established in current Technical Regulations issued by the Ministry of Mines and Energy, and must have current approval of the competent authorities.

SUPPLY UNIT OR PUMP SUPPLY UNIT

Typically includes a pump, motor, measuring computer, hose and gun. The objective of the unit is to deliver fuel from the storage tank to a method of transport or

a recipient, either for sale or to control the Fuel delivery.

BULK UNIT

Facility whose primary purpose is the storage of LP Gas prior to further distribution. LP Gas is received by cargo vehicles, tank wagons or through pipes, and then distributed for delivery in portable recipients (bottled), in cargo trucks, or through pipelines. This type of unit is generally used for residential, commercial, agricultural, institutional and industrial sectors or for storage of products ahead of delivery to the end user.

PROCESSING UNIT

Facility where the natural characteristics of hydrocarbons are changed in order to break them into different compounds; as well as subsequent changes to convert them into fuels required by industry and the transport sector. It includes facilities where impurities are extracted from the Natural Gas, hydrogen sulfide, carbon dioxide, carbon, water, and harmful components.

HYDROCARBON PROCESSING UNIT

Generic term used for those industrial plants processing Hydrocarbons and their derivatives, which may or may not be combustible fuels.

PROCESS UNITS

Facilities where an integrated sequence of physical or chemical operations are per-

formed, such as separation, purification or conversion of Hydrocarbons or their derivatives, forming an integrated section of a Refinery or Hydrocarbon Processing Unit. For example, units that perform distillation, reforming, catalytic cracking, alkylation, polymerization, etc.

UNIT OF LP GAS PRODUCTION

Facility in a fixed property, in which Hydrocarbons may be subject to transformational processes in order to produce propane, butane or a mixture thereof. This includes Refineries and Units Processing Natural Gas Condensate.

SALES UNIT, STORAGE UNIT OR TERMINAL

See Supply Unit.

HYDROCARBON PROCESSING UNIT

Generic term used for those industrial facilities that transform Hydrocarbons into their derivatives, fuels and non-fuels.

LP GAS DISTRIBUTION UNIT

Bolivia : Generic name for Retail Distribution Units , which exclusively store and sell LP Gas in cylinders. The LP Gas Distribution Units are classified according to their daily sales volumes as follows: a) Type "A" Companies, which sell more than 2001, 10kg cylinders per day b) Type "B" Companies, which sell up to 2000, 10kg cylinders per day c) Type " C " Companies, which sell up to 1000, 10kg cylinders per day d) Type " D " Companies, which sell up to 500, 10kg cylinders per day

e) Type " E " Companies, which sell up to 200, 10kg cylinders per day. f) Type " F " Companies, which sell less than 101, 10kg cylinders per day. This type of company exclusively supplies rural areas. (*) Or their equivalent in cylinders with a larger or smaller capacity.

BOTTLING UNIT

Bolivia: The facility at which LP Gas is bottled, taken from storage tanks and put into cylinders of different sizes.

Colombia: A physical infrastructure of facilities and equipment where a distributor bottles LP Gas in cylinders.

LP GAS BOTTLING UNIT

Special and separate property, at which a bottling company stores LP gas to bottle it in cylinders or transfer it to Tank Trucks.

PETROCHEMICAL UNIT

An integrated Unit or part thereof, separate from the refinery, where starting with Hydrocarbons or derivatives obtained through chemical reactions, other simple and complex derivatives are produced.

UPSTREAM

Argentina: Expression that describes the segment of the industry concerned with the extraction of the product up until it is processed industrially. In the case of oil/gas this includes, exploration, drilling, exploitation and even delivery to refineries, process units or fractionation units.

Peru: Expression that covers the segment of the industry that is occupied with everything from extraction of the product until its arrival for industrial processing.

USER

A natural person or a legal entity that deals with the Dealer or the Transport or Distribution services.

UVCE

Explosive outbreak of a flammable gas cloud, which is found in an ample space and whose pressure wave reaches a maximum pressure of about 1 bar in the ignition zone.



TANK WAGON

Vehicle without its own means of propulsion, equipped with a cargo tank that is transported by railway.

Mexico: Wagon train used to transport liquids.

FIELD VALUATION

The process of calculating levels of reserves and production potential of a newly discovered oil field, usually by drilling a delimitation well.

AUTOMATIC QUICK CLOSING AND REMOTE CONTROL VALVE

Valve that closes instantly and automatically when a risky situation arises. It may also be controlled by a system (e.g. a pneumatic system).

BLOCK VALVE

Element that merges into the piping and can close the passage of fluid totally.

EXCESS FLOW VALVE

Valve whose purpose is to close when the fluid flow exceeds chosen limits.

ESCAPE VALVE

Automatic pressure release mechanism triggered by the current pressure on the valve. The valve opens in proportion to the increase in pressure against the opening pressure. It is mainly used in Liquid storage Tanks.

PRESSURE ESCAPE VALVE

Generic term that applies to Escape valves, Safety valves or Safety Escape valves.

SAFETY OR PRESSURE ESCAPE VALVE

Valve to eliminate excess pressure inside tanks or pipes, taking it to the correct levels.

INTERNAL INSTANT CLOSING VALVE

See "Automatic Quick Closing and Remote Control Valve"

VAPORIZER

Device which receives LP Gas in liquid form and adds sufficient heat to convert the liquid into a gaseous state. It is not a recipient.

ELECTRIC VAPORIZER

Vaporizer whose heat source is electricity.

DIRECT FLAME VAPORIZER

Vaporizer in which the heat, supplied by a flame, is applied directly to some type of heat exchange surface in contact with the liquid LP Gas being vaporized. This classification includes submerged combustion vaporizers.

ELECTRIC DIRECT SUBMERSION VAPORIZER

Vaporizer in which an electric element is directly submerged in the LP Gas liquid and vapor.

INDIRECT ELECTRIC VAPORIZER

Submersion vaporizer in which the electric element warms an interface solution where the LP Gas heat exchanger is submerged, or heats a hot intermediary pool.

WATER BATH VAPORIZER

Vaporizer in which a vaporizing chamber, pipes, coils or other heat exchange surfaces that contain the liquid LP Gas to be vaporized, are submerged in a water bath - a combination of water/glycol or other non-combustible means for transferring heat at a controlled temperature, which is heated by an immersion heater that is not in contact with the heat exchange surface of the LP gas.

INDIRECT VAPORIZER

Vaporizer in which the heat supplied by vapor, hot water, soil, the surrounding air or other means is applied to a vaporization chamber or a pipe, serpentine or other heat exchange surface containing liquid LP gas to be vaporized. Heating of the medium used is done far away from the vaporizer.

LP GAS DISTRIBUTION VEHICLE

Bolivia: A vehicle set up in accordance with the Bolivian Standard NB-441-90, used to distribute LP gas cylinders from the Distribution Unit to the end user.

VEHICLE FOR CANISTER TRANSPORTATION

Bolivia: A vehicle set up in accordance with the Bolivian Standard NB-441-90, used for transporting LP Gas canisters from the bottling Unit to the Distribution Unit.

VEHICLE WITH A TANK

A vehicle equipped with a cargo tank which may be a: truck tank, carriage tank, trailer tank or a wagon tank, intended for the transportation of liquids by road or rail.

BURNING RATE

Fuel consumption rate in a stationary flame, due to rate of chemical reactions during combustion.

FLAME RATE

The advancing speed of the flame front, where that flame is propagating or progressing.

NET SALES

Sales, less direct taxes on sales.

VENTILATION

Ventilation piping that each Tank should be provided with.

Argentina: Operation to reduce pressure in piping, tubes or recipients evacuating gas to the atmosphere.

VACUUM-PRESSURE VENTILATION

Particular type of ventilation used in Tanks to reduce breathing losses and protect the Tank from external ignition sources. Normally closed, but opens to enable slight pressure variations inside the tank.

VIBRATION

Seismic Survey Technique that uses large vehicles equipped with vibrating plates to produce shock waves.

VISCOSITY

Viscosity is the opposition of a fluid to tangential deformation. A fluid that has no viscosity is called an ideal fluid. Viscosity is only manifested in moving liquids.

VOLATILE

Term describing substances with a low molecular weight that evaporate at normal temperatures and atmospheric pressure.

BOTTOM VOLUME

The volume that remains in the tank when the Liquid has reached the lowest pumped level. It is usually expressed as the distance from the lowest liquid level to the base of the tank.

NET TANK VOLUME

The available volume, equal to the total tank volume, less the Bottom Volume and the Top Volume.

TOP VOLUME

The space left in the upper part of the Storage Tank to allow for expansion of the content during temperature changes, in order to provide a safety margin to prevent overflowing during filling operations. It is usually expressed as the distance from the maximum liquid level to the top edge of the cylinder.

TOTAL TANK VOLUME

The total geometric volume of the interior of a Storage Tank, including the so-called Bottom Volume and Top Volume.



WOR

Water Oil Ratio. Used in the Exploration and Exploitation of Hydrocarbons.

WORKOVER

Repairing and rebuilding of a pit. The entire operation carried out at a well after its termination, in order to improve or restore production.



YPFB - YACIMIENTOS PETROLÍFEROS FISCALES BOLIVIANOS

Bolivia: State owned oil and gas company.

YPF S. A. - YACIMIENTOS PETROLÍFEROS FISCALES S.A

Argentina: Company that is predominantly state owned, dedicated to the oil related activities of exploration, exploitation, extraction, refining and sales of derived products.

YPF GÁS S. A.

Argentina: Company that is predominantly state owned, dedicated to sales and distribution of bottled and bulk LP Gas.



ZONE OF INFLUENCE

An area that delimits the scope of risk if a terrible accident were to occur, based on the Risk Studies.

HAZARDOUS ZONE

Any zone located inside and/or around a team of workers where the presence of an exposed worker subjects him to health or safety risks.

SAFETY ZONE

Area located within the minimum safety distances.

TOLERANCE ZONE

Zone of values within which a measurable characteristic conforms with its specification.



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MULTILINGUAL GLOSSARY OF OIL LIQUEFIED GAS (LP Gas)

This Glossary is the property of AIGLP and its members

It can be modified or updated, once the suggestions are sent to aiglp@aiglp.org and are approved by a committee.



Asociación Iberoamericana
de Gas Licuado de Petróleo
Associação Ibero-Americana
de Gás Líquido de Petróleo