

GLOSSARY OF HSE TERMS & DEFINITIONS

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Term	Definition
Accident	An accident is a work-related incident which has resulted in an actual injury to worker(s), occupational illness, damage (loss) to assets or harm to the environment.
Air Purifying Respirator	A respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.
As Low As Reasonably Practicable (ALARP)	As Low As Reasonably Practicable involves balancing reduction in risk against the time, effort and cost of achieving it. This level represents the point, objectively assessed, at which the time, difficulty and cost of further reduction measures become unreasonably disproportionate to the additional risk reduction obtained. It represents a performance that is at least equal to that required by regulation and exceeds it to a level that can be realistically afforded.
Barrier	A protective measure put in place to prevent situations that could cause harm to people, property or the environment. Barriers may be physical (protective devices, isolation, separation) or non-physical (procedures, warnings, training, drills)
Biological Hazard	Contact between a person and a biological agent, usually by inhalation, skin contact, skin absorption or ingestion
Business Area	A strategic geographically located, revenue generating business unit. Current locations are: Corporate, Projects, High Level, Whitecourt, Edson, Grande Cache, Crossfield, Bonnyville, Battleford, Athabasca, Calgary, and Saskatoon.
Charge	A charge is a legal action commenced by a regulatory authority under health, safety or environmental legislation which alleges a violation or breach of a requirement (s) of a legislative act, regulation or permit.
Chemical Exposure	Contact between a person and a chemical, usually by inhalation, skin contact, skin absorption or ingestion.
Health, Safety, Environmental (HSE) Policy	The statement of executive or senior management, the intent of which sets the direction and principles for HSE in CPES activities. Compliance to the HSE Policy is mandatory
Non Compliance Incidents	Non compliance incidents results from exceeding of limits or non-compliance with conditions found in legislative acts and regulations, of other authorizations such as operating permits, certificates of approval, licenses, etc. A non compliance incident may lead to a charge.

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Confined Space	<p>Confined Space means an enclosed or partially enclosed space that meets the conditions of (I) and (III):</p> <ul style="list-style-type: none"> (I) Is not designed or intended for human occupancy except for the purpose of performing work. (II) Has restricted means of access and egress, regardless of its size or depth, above, below, or at ground level, or the provision of first aid, evacuation, rescue or other emergency response service is compromised, and (III) May become hazardous to an worker entering it due to its <ul style="list-style-type: none"> ▪ Design (poor natural ventilation) ▪ Construction (is not constructed for prolonged human occupancy) ▪ Location ▪ Work activities ▪ Atmosphere (be subject to developing an oxygen deficient, flammable or toxic atmosphere) ▪ Or any other hazards relating to it <p>The intent of this definition is to include some but not all excavations.</p>
Consequence	A negative or positive result of one's choice of action.
Controlled Product	A substance or mixture whose physical, chemical or biological properties meet the prescribed criteria defined under WHMIS.
Direct Loss	Direct loss refers only to the material loss that results from an incident, including costs of repairs, remediation and response; it does not include any costs associated with loss of use, loss of profit or business interruption.
Eco-Efficiency	Business activity that creates economic value while reducing ecological impact and resource use.
Emergency	An emergency is a present or imminent event that requires prompt coordination of actions to protect the health, safety, or welfare of people, limit damage to property and the environment and minimize impacts on the business and corporate reputation.
Emergency Response Plan	An Emergency Response Plan (ERP) is a written detailed program of actions to minimize the consequences and effects of an emergency. Planning for medical emergency response is an integral part of the overall plan, which aims to minimize the consequences of an acute illness or injury.
Employee	An employee is any person engaged in work activities for CPES and who is on the CPES payroll.
Employment	Employment means all work or activity performed in carrying out an assignment or request of CPES or a reportable contractor, including related activities not specifically covered by the assignment or request.
Entry	Refers not only to complete body entry, but also to partial entry when only the head

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	is inserted (i.e. breaking the plane of the confined space).
Equipment Failure / Damage (EF/D)	Are work-related incidents which involve a worker-used piece of equipment or vehicle on any location which results in damages excluding normal wear and tear (such as minor paint scratches, paint chips, mechanical wear and tear, etc.) regardless of the responsibility for cause. “Failure” as used here, means for example, cable clamps allowing cable to slip through. “Equipment Failure Damage” as used here, includes any damages to vehicles while being operated off roadways, on leases, facilities, plants or right of ways. Any damages sustained by vehicles while vehicle is being used as a “Tool” (e.g. during lifting operations by a picker). Any damage sustained by vehicles while unattended in parking lots, on streets, garages, etc. Any damage to equipment or tools (including ATV’s, sidebooms, dozers, excavators, cranes, forklifts, packers, misc. equipment, etc).
Environmental Aspect	An element of the company's activities, products, or services which can interact with the environment. Environmental aspects include the following: <ul style="list-style-type: none">▪ Emissions to air▪ Relates to water▪ Waste management▪ Contamination of land▪ Use of materials and natural resources▪ Other local environment and community issues A significant environmental aspect is an environment aspect that has or can have a significant impact on the environment.
Ergonomic Hazard	Ergonomic hazards are situations related to the interface between people and their working environment with potential to cause harm to health. Most often these involve body posture and movement, information and controls, cognitive aspects or environmental factors. Consequences may include discomfort, pain, repetitive strain injury, or psychological stress.
Ergonomics	Ergonomics is a multidisciplinary activity dealing with the interactions between people and their total working environment.
Escalation Factor	A condition that leads to increased risk due to the loss of threat barriers or the loss of recovery preparedness measures. Escalation factors include such things as abnormal operating conditions, operating outside the design envelope, mechanical failure of barriers, weather extremes and tides, human error, etc.
Exposure	Contact between a person and a hazard; for chemical and biological hazards, usually by inhalation, skin contact, skin absorption or ingestion. Consequences result from a combination of the magnitude, frequency and duration of exposure.
Exposure Hours	Exposure hours are the total number of hours of employment including overtime and training but excluding leave, sickness and other absences. Exposure hours may be estimated if necessary.

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Exposure Monitoring	Measurements of exposure carried out on a regular basis to a specified protocol to quantify the degree of exposure as compared to an established level of control. Measurements are also used to check if exposure conditions have changed.
Fall Arrest Devices	Personal protective equipment which provides a means of arresting the fall of a worker and which, subsequent to the arrest of the fall, does not by itself permit the further release of or lowering of the worker.
Fall Protection	Equipment used to protect a worker from falling. This includes: <ul style="list-style-type: none">▪ Guard rails around work area▪ Safety nets▪ Fall arrest devices▪ A safety harness securely attached to an anchor point▪ Other means of protection meeting legislation in the particular jurisdiction
Fatality	A fatality is a work-related death resulting from an injury or illness, regardless of the time intervening between the incident and death. Death from natural causes is not considered as work-related for the purposes of these standards. Fatalities include work-related "non-accidental" deaths, including deaths outside normal working hours where there is reason to suspect a relationship between the death and events or exposures at work. These could include deaths where there has been toxic exposure during work activities, suicides where the predominant cause is determined to be work factors, homicides arising from work situations and heart attacks due to unaccustomed or unusual over-exertion. Third party fatalities captured in reporting statistics include those resulting from work-related activities where company or contractor management controls which should have been in place failed or were lacking. Third party fatalities include those resulting from assault, sabotage or theft.
Fine	Sum of money fixed as penalty for an offence (i.e. punishment by Fine)
First Aid Case (FA)	Any one-time treatment and subsequent observation of minor scratches, cuts, burns, splinters, illnesses and their related symptoms and so forth, which do not ordinarily require medical care by a physician. Such treatment and observation are considered first aid even if provided by a physician or registered professional medical personnel. The following are considered to be first aid treatments: <ul style="list-style-type: none">▪ Application of antiseptics during the first visit to medical personnel treatment of first degree burns▪ Application of bandages during any visit to medical personnel▪ Use of elastic bandage during the first visit to medical personnel▪ Removal of foreign bodies and embedded in the eye, if only irrigation is required▪ Removal of foreign bodies from a wound, if the procedure is uncomplicated (i.e. using tweezers, etc)▪ Use of non-prescription medications and administration of a

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	<ul style="list-style-type: none"> ▪ Single dose of prescription medication on the first visit for minor injury or discomfort ▪ Soaking therapy during an initial visit to medical personnel, or removal of bandages by soaking ▪ Application of hot or cold compresses during the first visit to medical personnel ▪ Application of ointments to abrasions to prevent them from cracking or drying ▪ Use of whirlpool bath therapy during the visit to medical personnel negative x-ray diagnosis ▪ Observation of injury during a visit to medical personnel ▪ Administration of tetanus shots or boosters
Fit Test	The use of a qualitative or a quantitative method to evaluate the fit of a specific make, model, and size of respirator on a worker.
Guidelines	Statements which provide recommendations for engineering design, operation and management of our activities and business. Compliance with Guidelines is recommended, but not mandatory.
H2S Monitoring	Either of the following as selected by the Business Unit for the activity and hazards: <ul style="list-style-type: none"> ▪ Continuous monitoring in the immediate vicinity of the work using a properly calibrated and maintained H2S monitoring device (personal, portable or fixed) ▪ Intermittent measurements taken before and during the work using a properly calibrated and maintained electronic H2S monitoring device or colorimetric detector tubes suitable for the range expected to be encountered
Hazard Analysis Critical Control Point (HACCP)	Hazard Analysis Critical Control Point is a prevention-based food safety program recommended by the Canadian Restaurant and Food Services Association.
Hauled Potable Water	Water to be used for human consumption which is delivered in bulk for offloading into equipment on site (excludes bottled potable water).
Hazard	A situation that has the potential to cause harm, including illness and injury, damage to property, products or the environment, production losses or increased liabilities, Hazard can be thermal, chemical, biological, radiation, kinetic, electrical, climatic, etc.
Hazardous Atmosphere	Any atmosphere that is oxygen-deficient, contains substances exceeding occupational exposure limits, presents a fire/explosion hazard, and/or contains an airborne toxic or disease-producing contaminant in concentrations deemed to be hazardous.
Hazardous Biological Agent	Biological material, microbial, animal or plant, capable of causing significant adverse health effects in an exposed person.
Hazardous Chemical	A chemical that is capable of causing significant adverse health effects in an exposed person.

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Hazard Assessment and Control	A hazard management document that demonstrates that the hazards have been identified, assessed, are being properly controlled and that recovery preparedness measures are in place in the event control is ever lost.
Health Hazard	The potential to cause harm to health. Health hazards may be biological, chemical, physical, ergonomic or psychological in nature.
Health Impact	A health impact refers to any change in health risk (positive or negative) in the community that is reasonably attributable to a project. Health impacts are immediate, short and long term changes in the health of a population that may occur at any time during the total lifecycle of a project. Health impacts include both direct (e.g. the introduction of infectious disease) and indirect effects. Indirect effects occur through intermediate factors that influence the determinants of a population's health (e.g. changes in dietary habits resulting in heart disease and diabetes, inability to obtain health care because of increased demand due to the project).
Health Impact Assessment	A method of assessing a project's potential health impact on a community.
Health Risk	A measure (qualitative and/or quantitative) of the potential harm to health in terms of magnitude and likelihood. Health Risk is the product of the severity of harm to health and the chance that a specified activity will produce exposure capable of producing that harm (Health Risk = Hazard x Likelihood of Exposure).
Health Risk Assessment	Health Risk Assessment (HRA) is a process that identifies the health hazards in the workplace, assesses the risk to health, defines the type and degree of analysis required and determines the degree of control required to manage health risks.
Hot Work	Any work that produces enough energy to be a potential source of ignition.
HSE Case	An HSE Case is documentation to demonstrate that all significant hazards associated with a particular operation have been identified and that all attendant risks have been reduced to ALARP.
HSE Critical Activities	Activities that have been identified by the Hazards and Effects Management Process as vital to ensure the physical integrity of the asset, prevent incidents, and/or mitigate adverse HSE effects.
Immediately Dangerous to Life and Health Atmosphere (IDLH)	An IDLH atmosphere is one that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape. An IDLH atmosphere shall be assumed in any of the following situations: (a) structural fire fighting (b) an untested confined space (c) an area where a known hazardous contaminant is present at or above published IDLH concentrations (d) an area where a known hazardous contaminant is present at an unknown concentration (e) an area where there is an oxygen deficiency

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	(f) an area where, in the opinion of a qualified person, the condition presents a potential IDLH atmosphere.
Illness	An illness is any abnormal condition or disorder, other than one resulting from an injury, caused by exposure to environmental factors associated with employment. It includes acute and chronic illnesses or diseases that may be caused by inhalation, absorption, ingestion, or direct contact, as well as repetitive strain cases (e.g. carpal tunnel syndrome) and other potentially "ergonomically induced" conditions. Illnesses are deemed to have occurred on the date of diagnosis, for purposes of reporting and statistical tracking. Illness reporting is mandatory only for active employees. Some conditions may be classified as either an injury or an illness, but not both, depending on the nature of the event causing the condition. For example, a loss of hearing may be due to an explosion (an instantaneous event and thus an injury), or due to long term exposure to high levels of industrial noise (thus an illness).
Incident	An unplanned and/or unwanted event or chain of events, which has or could have resulted in injury or illness and / or damage (loss) to assets or the environment, or which may have an impact on the public. "Incident" denotes near miss events, potential incidents and accidents. The extent of near miss and potential incident reporting and investigation is determined by the seriousness of the incident (i.e. its rating as determined from the Hazard Assessment Matrix, see Ranking matrix s-01).
Indirect Cost	Indirect costs are consequential damages to assets not being managed by CPES, as well as emergency and clean-up costs, and lost production or opportunity, etc.
Injury	Any cut, fracture, sprain, amputation, etc. which results from a single instantaneous work-related incident. One-time exposures to chemicals are also considered injuries. Note that animal bites or insect stings are normally considered work related injuries, however repeated or extended exposure may result in disorders that are considered occupational illness. Work-related incidents, including overexertion, that aggravate a pre-existing condition are injuries.
Job Type	Defined set of work duties or activities with similar associated potential chemical or biological exposures. (E.g. Foreman Operator, Welder, Labourer).
Lockout	A process that prohibits the operation of equipment and the switch or controls which activate the equipment.
Lower Explosive Limit (LEL)	The minimum concentration of gas, vapour or dust or any combination of these at ambient temperatures in air at which the propagation of flame occurs on contact with a source of ignition. Also referred to as LFL (Lower Flammable Limit) in some industry standards.
Long Term Contractor	Contractors hired by a Business unit to work at a location for an extended period of time (e.g. more than three consecutive months).
Lost Time Injuries (LTI)	Lost time injuries include fatalities, permanent total disabilities and lost workday cases resulting from work-related injuries. Note that lost time injuries exclude restricted work cases.

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Lost Time Injury Frequency (LTIF)	The lost time injury frequency is the number of lost time injuries per 200,000 Exposure Hours worked during the period. Thus: LTIF = (LTI/ Exposure Hours) x 200,000.
Lost Workday Case (LWC)	A lost workday case is any work-related injury or illness which renders the injured or ill person temporarily unable to perform any regular job or restricted work on any calendar day after the day on which the injury or illness occurred, including cases where employment is terminated or after job completion. A single incident can give rise to several lost workday cases, depending on the number of people affected as a result of that incident.
Lost Workdays	The number of lost workdays is the total number of calendar days on which the injured or ill person was temporarily unable to work as a result of a lost workday case. In cases of fatality or permanent total disability no lost workdays are recorded. In cases of termination or completion of job, lost workdays continue to be counted until the affected person is able to return to work; estimates are acceptable.
Management	Includes executives, managers and first-line supervisors
Material Safety Data Sheets (MSDS)	Material Safety Data Sheets (MSDS) are technical documents required by WHMIS that contain detailed prescribed information on various health and safety aspects of a controlled product.
Maximum Use Concentration (MUC)	The maximum concentration of a contaminant for which a given type of respirator may be used. For the purposes of this standard the MUC is the Protection Factor (as assigned per CSA Standard Z94.4-02 Selection, Use and Care of Respirators) multiplied by the OEL
Near Miss (NM)	A near miss is an incident, which under slightly different circumstances could have resulted in injury, illness and/or damage (loss) to assets, the environment or reputation.
New Substance	Any substance which is imported manufactured or marketed which is not on the "Domestic Substance List" published by the federal government.
Notification	Notification is a communication to advise senior management and other parties that an incident of a certain category has occurred.
Objectives	Specific areas of performance requirements which the company sets out to achieve in support of the commitment and policy. Objectives are generally long term and are quantified whenever practical.
Occupational Exposure Limit (OEL)	The maximum airborne concentrations of substances to which workers may be exposed for specific lengths of time as defined by the relevant legislation or as set internally by CPES Energy Services in the absence of a regulated exposure limit.

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Operating Location	The location where the particular activity being addressed occurs.
Order	An order is a directive from regulatory authorities for non-compliance with a health, safety or environmental regulation or a permit. Typically the directive is referred to as a Ministerial Order or a Director's Order.
Over Exposure	Exposure that exceeds the OEL for a particular chemical, the recommended limit for a particular biological agent, or is likely to result in adverse health effects.
Oxygen Deficiency	A condition based on an oxygen concentration or partial pressure below which a person may be adversely affected. Each authority having jurisdiction may establish an alternative definition.
Penalty	A penalty is disciplinary action against a company by a regulatory body in the form of money (fine), enforced community work. Imposed studies and/or imprisonment, resulting from a breach of law, rule or contract.
Perishable Food	Food that is capable of supporting the growth of pathogenic micro-organisms or the production of toxins.
Property Incident (PI)	Work-related incidents which involve any company owned/leased property (yards) or facilities (Buildings, fences) that result in damages or loses including any acts of security, theft or vandalism to vehicles, equipment, property or facilities but excluding normal wear and tear (such as minor paint scratches, mechanical wear and tear, etc.) Any work related incidents which involves any client owned/leased property (leases, plants, yards, fences, vehicles/equipment, etc.) facilities (buildings, pipelines, pipes, etc. that results in damages or losses including any acts of security, theft or vandalism.
Self Contained Breathing Apparatus (SCBA)	A self contained positive pressure or pressure demand respirator supplied with clean respirable air from a compressed air cylinder.
Security Incident	Incidents that threaten the security of people at CPES facilities, CPES property, information or reputation.
Security Measures	Security measures are actions designed to minimize the effect of threats. Generally, measures should be: Cost effective: take into account security exposure and the cost of implementing security measures. Practical: they do not impede business operations unreasonably. Effective: they neutralize/minimize the risk(s) in question.
Security Risks	A security risk is a potential source of harm/damage to Strike employees, contractors, property, or information.

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Serious Incident	<ul style="list-style-type: none"> ▪ An injury or incident that results in death ▪ An injury or incident that requires hospitalization of a worker for more than two days ▪ An unplanned or uncontrolled explosion, fire or flood that cause injury or has the potential to cause serious injury ▪ The collapse or upset of a crane, derrick or hoist ▪ The collapse or failure of any component of a building or structure necessary for the structural integrity of the building or structure
Severity	Severity is calculated as the total lost workdays (estimated where necessary) resulting from incidents which occurred during the reporting period, divided by the total of lost workday cases. Severity represents the average days lost per lost workday cases. Severities for illnesses and injuries are reported separately.
Significant Incident	<ul style="list-style-type: none"> ▪ An injury that causes a worker to be injured to the extent that medical aid treatment is required ▪ An above ground or underground utility contact (i.e. power lines, pipelines, cables, etc.) ▪ Unplanned release of hazardous substances or gases ▪ A near Miss (unplanned happening), where no injury or damage was evident, but which under slightly different circumstances, had the potential to cause a serious incident as defined below ▪ Environmental damage where flora and fauna would take longer than six (6) months to recover. ▪ Contamination of any water way, source or body that has the potential to cause harm to plant or animal life. ▪ Property, vehicle or equipment damage that does or is expected to exceed \$5,000.00 ▪ Any vehicle or equipment upset or roll over. <p>Any credible report of harassment, violence, negligent/destructive/inappropriate use of vehicles, equipment, property or the environment</p>
Special Event	An occasional function provided CPES where food services and on-site preparation occurs and involves employees, contractors or the general public.
Spill	A spill is a release of a liquid pollutant to land or water, as defined by Business Units.

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Standards	Statements which provide the minimum requirements for engineering design, operation and management of our activities and business. The requirements of all applicable legislation are taken as standards. Compliance with Standards is mandatory.
Substance Abuse	The inappropriate possession, use or sale of alcoholic beverages, illicit drugs, prescription drugs, over the counter drugs or any other mind altering concoctions.
Tagout	A process of placing a car seal or similar device on equipment controls or placing a tag on the control device of the equipment that includes instructions not to operate the equipment and a process to identify when and by whom the tag was placed
Targets	Detailed and agreed to short-term (generally) performance requirements, quantified where practical, which need to be met to achieve objectives.
Third Parties	Third parties, or the public, are persons or organizations that are not employed by nor contracted to Strike.
Threat	Those factors which have the potential to release a hazard and produce a top event.
Threshold Limit Value(TIV)	The maximum airborne concentration of substances to which, it is believed, nearly all workers may be exposed day after day without adverse effect as determined by the responsible committees of the American Conference of Governmental Industrial Hygienists (ACGIH)
Total Reportable Injuries (TRI)	Total reportable injuries are the sum of fatalities, permanent total disabilities, permanent partial disabilities, lost workday cases, restricted work cases and medical treatment cases resulting from work related injuries.
Total Reportable Injury Frequency (TRIF)	The total reportable injury frequency is the number of total reportable injuries per 200,000 exposure hours worked during the period. Thus: TRIF = (TRI/Exposure Hours) x 200,000
Workplace Hazardous Materials Information System (WHIMIS)	The Workplace Hazardous Materials Information System is the national system of identification and management of hazardous substances in the workplace. Regulatory control is by the (federal) Hazardous Products Act and the Hazardous Materials Information Review Act; and within each province/territory by the relevant local Occupational Health and Safety Act, or the Canada Labour Code



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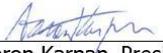
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WHMIS Labels	Controlled products offered for sale must include a WHMIS supplier label containing prescribed information. Facilities must also have worksite labels and/or placards in areas where exposure to controlled products may occur.
Work Camp	One or more buildings and accompanying lands, established on a temporary basis, to accommodate employees or contractors involved in Strike activities.
Worker	Refers to both CPES (including management) and contract employees.

APPROVED:


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