



Reference Manual

High Potential Standards - HPS



 Albemarle



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OUR PURPOSE

Albermarle leads the world in transforming essential resources into critical ingredients for mobility, energy, connectivity, and health. We partner to be pioneers in new ways of moving, feeding, connecting, protecting, and thinking about people and the planet. We are committed to building a more resilient world.



ALL THE ELEMENTS FOR A BETTER WORLD

VALUES

CARE

We improve the safety and support the well-being and resilience of our communities, employees, and environment.

CURIOSITY

We continuously learn and are comfortable taking informed risks to innovate.

COLLABORATION

We work together, value each other and encourage diverse thought to drive better outcomes.

HUMILITY

We share the credit and value the ideas of others to achieve goals together.

ACCOUNTABILITY

We act with courage to take ownership for what matters and responsibly deliver results.

INTEGRITY

We do what we say with honesty and transparency for the benefit of all.



LIFE-SAVING RULES



WORK PERMIT

I obtain permits before work begins and abide by the controls.



LOCK OUT TAG OUT

I identify, isolate, and test all energy sources before work begins.



LINE BREAK

I verify control of hazardous energy before line break.



ELECTRICAL

I only use proper, inspected and protected electrical equipment.



CONFINED SPACE

I obtain authorization by permit prior to entering a confined spaces.



WORKS AT HEIGHT

I work safely at heights, using appropriate fall protection.



PPE

I wear all the prescribed Personal Protective Equipment (PPE).



BYPASSING SAFETY CONTROLS

I obtain authorization before overriding, modifying or disabling safety controls.

Safety is everyone's responsibility.
Know the rules. Follow the rules. Save lives with the rules.

SCAN



SURVEY

Scan your surroundings for potential hazards.



CONSIDER

Consider all interactions with the surroundings for routine and contingency tasks.



ACT

What actions and controls will I take to prevent an incident?



NOTIFY

Warn/signal/segregate immediately to avoid exposing other collaborators.

SCAN... IF YOU DON'T IDENTIFY THE HAZARDS, THE RISK OF INJURY INCREASES.



ENERGY WHEEL

Temperature

Sparks - fire/ Welding - polishing - cutting/ Heat load/ Hot surfaces/ Steam/ Cooling load/ Cold surfaces/ Cold substances/ Extreme weather conditions/ Indoor climate.

Chemical

Flammable and combustible substances – pyrophoric - that spontaneously react - water reactive - explosive, atmosphere - oxidizing - toxic - corrosive - carcinogenic organics, mutagenic - environmentally toxic/ Inert gases/ Absence of oxygen/ Odorous substances/ Lubricants/ Solids - dust - fibers/ Liquids - aerosols - mist - droplets/ Gases - vapors - fumes.

Biological

Viruses/ Bacteria/ Mold - Fungi/ Parasites/ Animals/ Insects/ Plants/ Organic materials and oil/ Hygiene/ Blood pathogens/ Smoking/ Alcohol and drugs.

Radiation

Ionizing - radioactive source/ Ultraviolet light (sunlight, welding)/ Infrared (IR)/ Visible light (too bright, too dark)/ Radio/ Microwave/ Beacon/ Laser/ Wifi.

Sound

Tools, percussion equipment/ Exhaust system/ (safety) Relief system/ High-speed gas leakage/ Moving parts/ Surface scraping/ Unbalanced rotating parts/ Pneumatic hissing/ Worn parts/ Cavitation.

Gravity

Height differences/ Scaffolding/ Platforms (ladder)/ Man-lift/ Basket/ Trenches/ Banks/ Multiple levels - floors - surfaces/ Slippery surfaces - uneven - messy/ Heavy objects/ Lifting (suspended load) / Retractable doors/ Loose materials at heights.

Motion

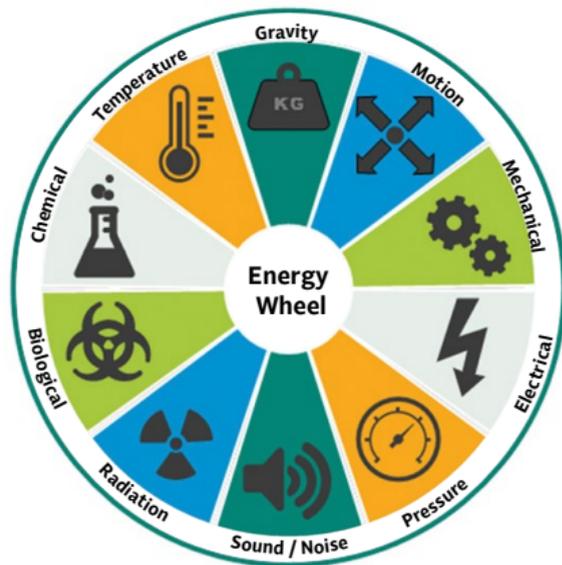
People on the move/ Rotating parts and/or moving equipment/ Pinch points/ Transit/ Tools (manual), mobile equipment/ Manual, mechanical lifting and hoisting/ Ergonomics: posture, repetition, manual handling of loads - equipment, twisting, turning, reaching overhead or stretching, pull-push/ Wind - water flow/ Folding doors, windows.

Mechanical

Compression/ Material under induced tension (pulling)/ Elasticity/ Tools (manual) - Mobile equipment/ Torsion/ Rotation/ Oscillation/ Vibration/ Full-body vibration/ Cavitation/ Friction/ Angular and sharp objects/ Pinch points/ Soil pressure - slopes/ Rock fragmentation, concrete.

Electrical

Low-high voltage electric circuit/ Power tools/ Static electricity/ Lightning/ Electromagnetism/ Electric Panel/ Extensions/ Connectors/ Distribution boxes.



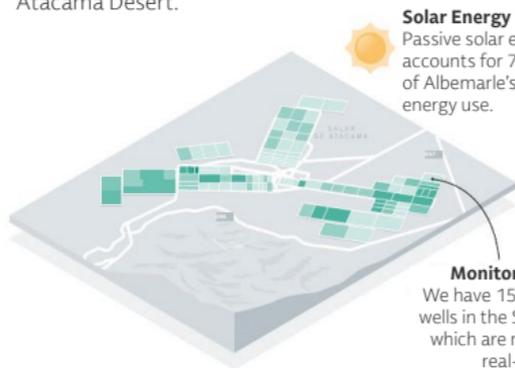
Pressure

Pressurized gases and steam/ Pneumatic/ Pressurized liquids/ Hydraulic/ High-pressure cleaning/ Blasting or sandblasting/ Vacuum/ Pressure-safety relief valves/ line breaking - opening.

INFOGRAPHIC OF THE SALAR AND LA NEGRA PROCESS

Salar de Atacama Plant

The production process begins with treating the natural brine (which is ten times saltier than seawater) obtained by pumping from the core of the Atacama Salt Flat. It is placed in outdoor ponds, which are subjected to the intense solar energy of the Atacama Desert.

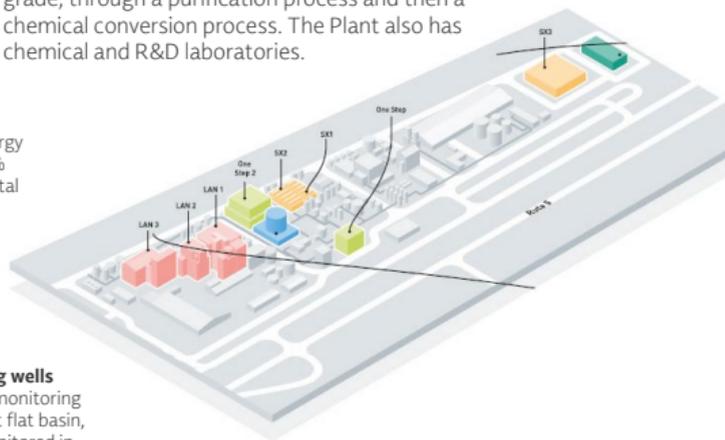


Solar Energy
Passive solar energy accounts for 78% of Albemarle's total energy use.

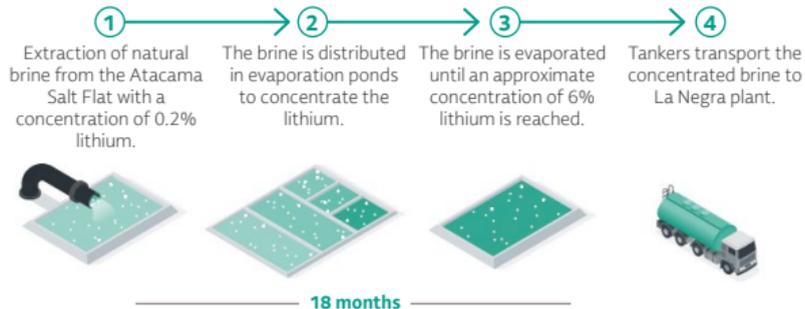
Monitoring wells
We have 150 monitoring wells in the Salt flat basin, which are monitored in real-time.

La Negra Chemical Plant, Antofagasta

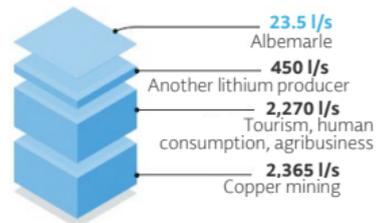
La Negra Chemical Plant adds value to lithium and produces lithium chloride, lithium carbonate, technical and battery grade, through a purification process and then a chemical conversion process. The Plant also has chemical and R&D laboratories.



Production Process: Salar de Atacama Plant



Freshwater rights in the Atacama Salt Flat







HIGH POTENTIAL STANDARDS

At Albemarle, the values of Care and Accountability represent the commitment to employees' physical and mental well-being, whether from the company, collaborating companies, or visitors to our sites.

The High Potential Standards (HPS) complement our Life-Saving Rules, whose purpose will be to protect people's integrity and life at work. The High Potential Standards are 15 critical safety procedures whose rules and preventive controls must be known and followed correctly in the tasks, whether operational, maintenance, or support.

This reference manual on High Potential Standards has been designed as a quick guide on the essentials we should consider for each HPS. This is fundamental for the safe planning and execution of the works.

If you have doubts about how the High Potential Standards apply, raise your hand and consult this quick response guide before proceeding.

1



Energy Isolation and Lockout



OBJECTIVES AND SCOPE

Establish the minimum requirements to avoid injuries to personnel due to unexpected energization, startup, or release of energy stored in equipment and processes during an intervention, whether for maintenance, repair, inspection, or other purposes.

This procedure applies to the company's employees, contractors, vendors, or those who work permanently, part-time, or occasionally on Albemarle's sites.



DEFINITIONS



Protected person: Personnel other than those who have carried out the initial isolation and who must be protected by the lockout.



Equipment owner: The person who normally operates the equipment. In most cases, these will be production operators, but in some cases, they may be maintenance technicians, laboratory technicians, or other employees.

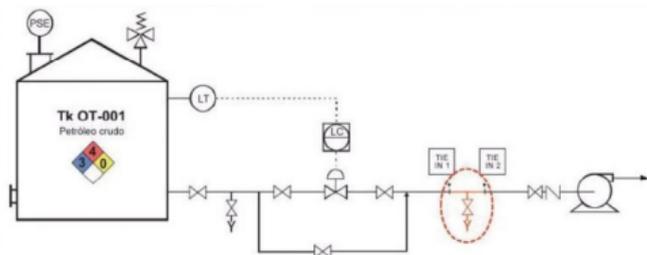


Representative: The person who normally operates the equipment. In most cases, these will be production operators, but in some cases, they may be maintenance technicians, laboratory technicians, or other employees.

ENERGY LOCKOUT AND ISOLATION PROCESS

1

Identify all the energies associated with the system or equipment being intervened. Use the drawings (P&ID).



2

Identify the isolation points and have the lockout devices being used handy.

3

Install the lockout devices, chains, cords, or others and the tags at the points to be locked out.



4

Take all the keys to the site's lockouts and place them inside the group's lockout box.

5

Complete Energy Lockout Identification Registry “RIBE” (Energy Lockout Identification and Registration).

ALBEMARLE

REGISTRO DE IDENTIFICACION DE BLOQUEO DE ENERGIA (RIBE)

SECCION DE IDENTIFICACION DE BLOQUEO DE ENERGIA (SIBE)

SECCION DE IDENTIFICACION DE BLOQUEO DE ENERGIA (SIBE)

SECCION DE IDENTIFICACION DE BLOQUEO DE ENERGIA (SIBE)		SECCION DE IDENTIFICACION DE BLOQUEO DE ENERGIA (SIBE)		SECCION DE IDENTIFICACION DE BLOQUEO DE ENERGIA (SIBE)		SECCION DE IDENTIFICACION DE BLOQUEO DE ENERGIA (SIBE)		SECCION DE IDENTIFICACION DE BLOQUEO DE ENERGIA (SIBE)	
No. de Orden	Nombre de Operador	No. TAG	Motivo de Bloqueo de Energia	Fecha de Bloqueo	Fecha de Liberacion	Estado de Bloqueo	Estado de Liberacion	Fecha de Bloqueo	Fecha de Liberacion
1									
2									
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6

The lockout must be verified (Zero-energy test).

SHIFT ELECTRICIAN

Lock the Group Lockout Box with departmental tag and complete the RIBE.

BLACK
LOCK



CHIEF OPERATOR/ SHIFT SUPERVISOR

Lock the Group Lockout Box with the departmental tag, complete the RIBE, and perform the zero-energy test.

BLACK
LOCK

7 Install lockouts and register those who are going to intervene the equipment in the RIBE.

ALBERMARLE / CONTRACTOR STAFF

Any collaborator and/or contractor who intervenes directly in the work must lock the group lockout box with personal tag and is noted in the RIBE.



LOCK COLOR BY AREA

- | | | | |
|--|---|--|--|
| | BLACK
Departmental Lock for Maintenance/ Operations/ Engineering and Project
More than one shift | | GREEN
For Mechanics - Personal Use - One shift |
| | BLUE
For Operator's Personal Use
One shift | | YELLOW
For Contractors - Personal Use
One shift |
| | RED
For Electricians and Instrumentalists - Personal Use
One shift | | ORANGE
For Engineering and Project - Personal Use
One shift |
| | PURPLE
For Process Engineering - Personal Use
One shift | | LIGHT BLUE
For Longer Projects - Personal Use
One shift |

PERSONAL TAG-OUT



DEPARTMENTAL TAG-OUTS



EQUIPMENT OUT OF SERVICE TAG-OUT



Once the maintenance or repair of the equipment has been completed and the RIBE has been completed correctly, the removal of the locks must be performed in the following order:

- Contractors or Albemarle personnel who performed the maintenance or repair.
- Shift Electrician (lockout box lock).
- Chief operator or Shift Supervisor.
- Plant Operator
- Shift Electrician (Lockout box lock)

CLAMPS OR TONGS

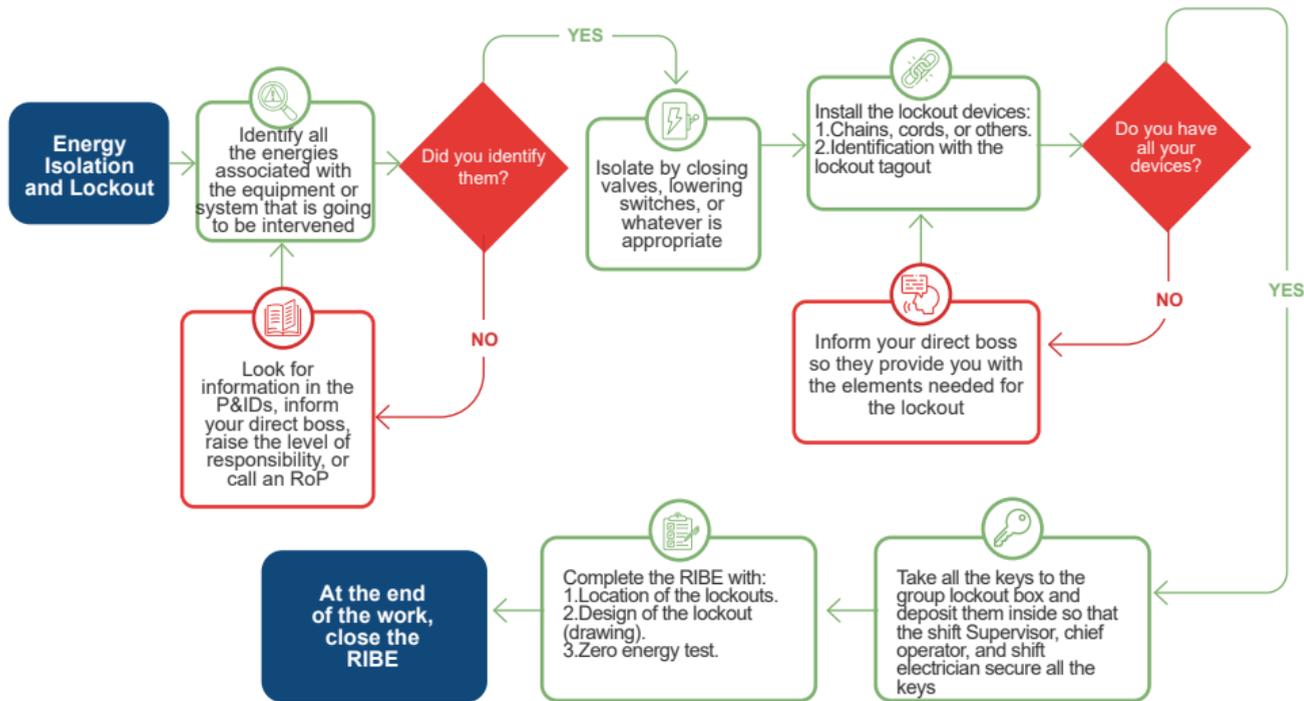


In parallel with the lockout removal sequence, the Chief Operator shall:

- Inspect the work area to ensure all equipment protections have been implemented.
- Make sure to clear the place and inform all personnel who participated in the isolation and lockout activity that the equipment's power will be restored and all the lockouts and tag-outs have been removed.
- Make sure that the maintenance or repair work has been completed.



ENERGY LOCKOUT AND ISOLATION PROCESS FLOW-CHART



2



Confined spaces



OBJECTIVES AND SCOPE

The purpose of this procedure is to establish the minimum requirements that guarantee the health and safety of workers when they have to work in a confined space, as they may have risks due to entrapment, the presence or generation of toxic, flammable, explosive gases, or due to oxygen deficiency.

This procedure applies to the company's employees, contractors, vendors, or those who work permanently, part-time, or occasionally on Albemarle's sites.



DEFINITIONS



Confined Space:

- An enclosed or partially enclosed space that is not designed in principle or is not intended to be occupied by people.
- It has a restricted entry and exit according to location, size, or means.
- It may present a risk to the health and safety of any person who enters due to one or more of the following factors: Its design, construction, location, or toxic, oxygen deficient, or flammable atmosphere due to the materials or substances it contains, and/ or the work activities that are carried out, processes and/or mechanics present.



Permanent Observer: A person trained to control the entry of workers, maintaining permanent contact with them.



Emergency brigade staff must be aware that work is being done in a confined space; for this, they must sign the SWP.



The rescue staff are the only ones who can enter the confined space to perform a rescue.



Before entering a confined space, the worker has to go to the procedure room for a preventive health check.



A fixed or portable warning sign must be installed, indicating work in a confined space.



A gas analysis should be performed to allow entry into confined spaces. The conditions must be monitored and checked every 2 hours.



People who enter must wear a monogas detector permanently while inside the confined space.



There must be a permanent observer, who must be located at the confined space's entrance to control workers' entry and exit.



Lights with a low-voltage battery (24 volts or less) should be used to minimize the risk of electrocution and explosion.



If it is necessary to use a voltage of 220 v, a 25A 30MA differential protector must be provided.



For work in confined spaces, people who enter must have a rescue system, tripod, lifelines, safety harness, retractable system, or another similar system, which allows them to be quickly removed in case of an emergency.



These rescue systems must be available where the confined space work is performed.

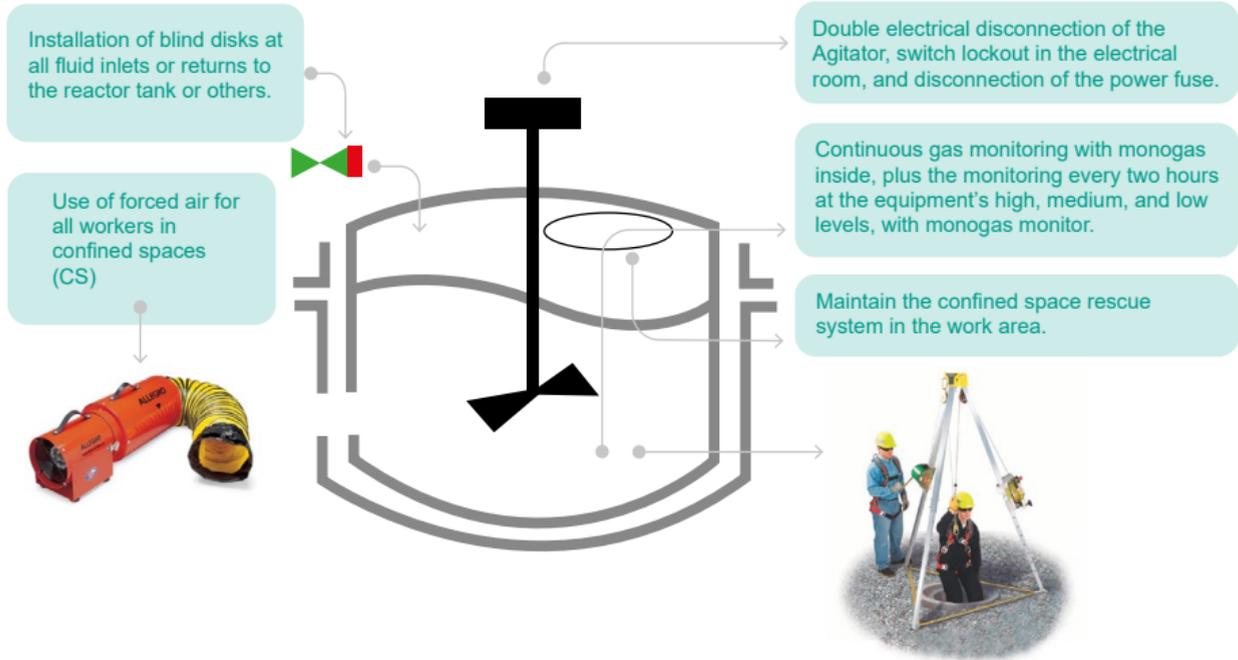


All the permits and requirements, such as SWP and JSA-SCAN, must be in order before entering the confined space, and the documents must be at the workplace and available for inspection.

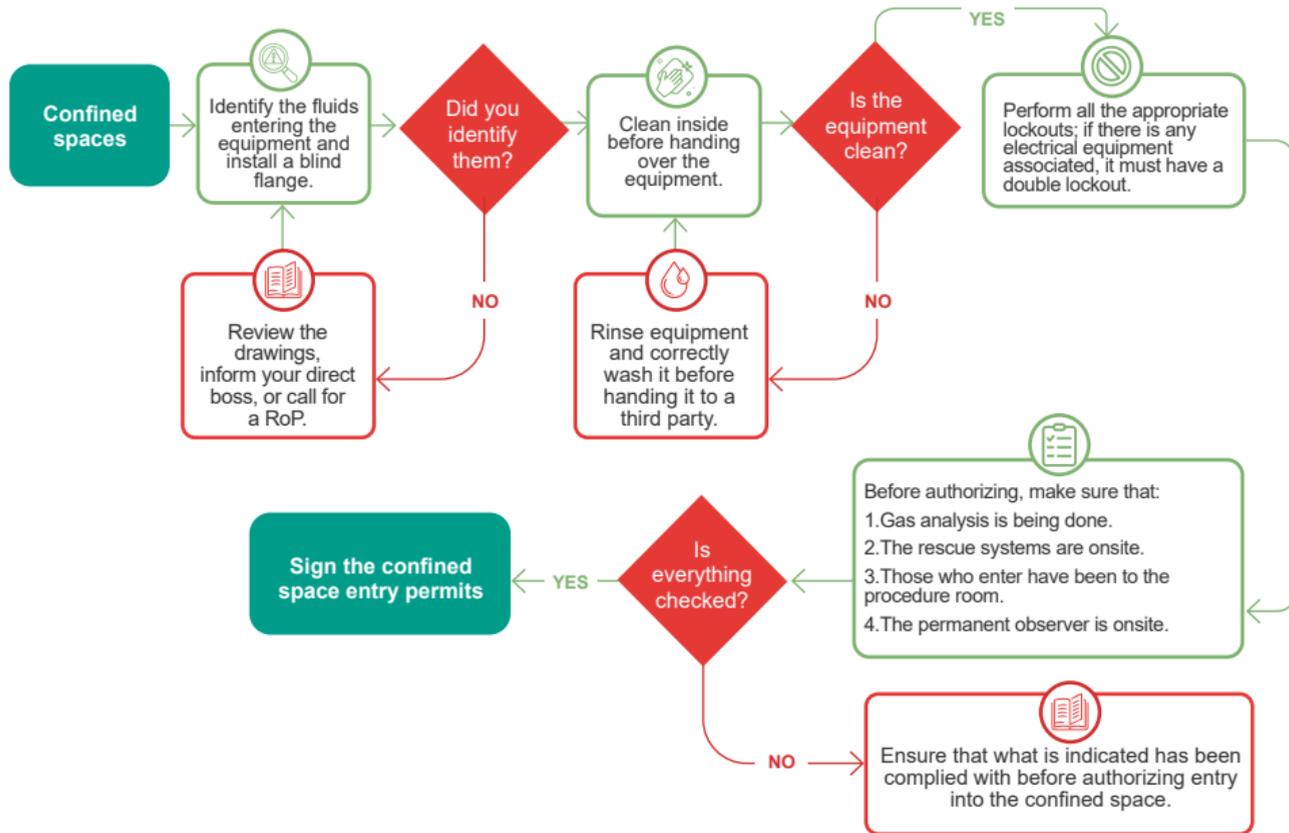


There must be a rescue plan for confined spaces, assigning roles and responsibilities, risk analysis, inventory, and location of the confined spaces.

ENTRY REQUIREMENTS FOR A CONFINED SPACE



FLOW CHART FOR CONFINED SPACES



3



Hot works



OBJECTIVES AND SCOPE

The objective of this procedure is to define the minimum requirements for carrying out work that involves open flames or sparks that could cause a risk of fire or explosion and that could affect the integrity of the workers or the facilities.

This procedure is applicable to Albemarle workers, contractor companies, subcontractors who work permanently, partially or occasionally in Plants.



DEFINITIONS



Hot work: any work where a tool or apparatus produces open flames or sparks. Hot work includes but is not limited to, welding, cutting, burning, grinding, open flames, motors, molten metal, opening equipment containing pyrophoric materials, machinery, or other equipment capable of creating a source of ignition, but

also the use of non-intrinsically safe electronic and lifting equipment, such as man lifts, unless specifically approved for use in covered areas.



Classified Areas: Area that contains flammable vapors, liquids and/or gases, combustible dust, and fibers, which can cause fire or explosions if subjected to a source of ignition. Classified areas are defined in terms of Class, Division, and Group.



Heavy hot work: is any work where a tool or appliance produces flames or sparks, such as welding, cutting, burning, grinding, open flames, engines, molten metal, opening equipment containing pyrophoric materials, machinery, or other equipment capable of creating an ignition source.



Light hot work: Activities involving electrical devices, the opening of the electrical cabinet, the spark tests of a container, and other explosion-proof or intrinsically unsafe equipment in areas classified as potentially flammable and/or explosive.

CLASSES OF CLASSIFIED ZONES IN PLANT

ZONE 0

An area where an explosive atmosphere, product of the combination of air and flammable substances in form of gas, vapor, or mist is present continuously or for prolonged periods.

ZONE 1

An area where an explosive atmosphere, product of the combination of air and flammable substances in the form of gas, vapor, or mist may occasionally occur in normal operation.

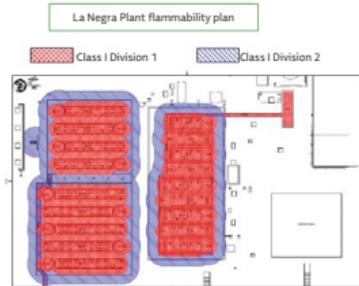
ZONE 2

An area where an explosive atmosphere, product of the combination of air and flammable substances in the form of gas, vapor, or mist, is unlikely to occur in normal operation, but if it does, it will persist for a short period of time.

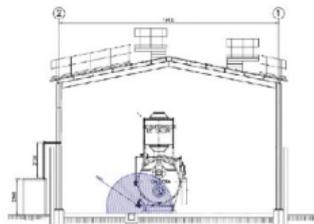
Class I, Division 1: Class I, Division 1 areas are those where the hazardous environment is present during normal operations, may be present continuously, intermittently, periodically, or during routine repair or maintenance operations, or those areas where a breakdown in machinery or equipment releases hazardous fumes along with the simultaneous failure of electrical equipment. Examples: liquefied petroleum gas (LPG) and natural gas facilities, among others.

Class I, Division 2: Class I, Division 2 areas are those where volatile liquids or gases are handled, processed, or used normally. These liquids or gases are confined in sealed containers that could contaminate the environment with the hazardous material in case of rupture or deterioration.

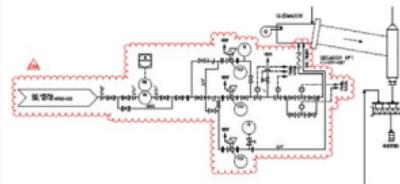
SX PLANTS



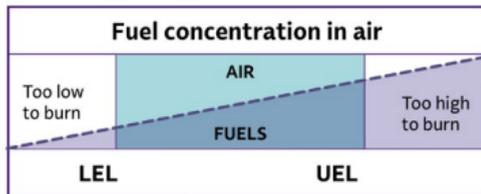
BOILERS



DRYERS



Lower Explosive Limit LEL vs. Upper Explosive Limit UEL



Continuous monitoring of the LEL (Lower Explosive Limit) is **mandatory for all heavy and light hot work in areas classified as potentially flammable or explosive**. Continuous monitoring refers to performing the measurement of flammable vapors throughout the hot work. An initial reading of 0% LEL is required before the authorization of the permit. If, during hot work, the continuous monitoring detects 10% LEL or more, it should be stopped immediately.



All hot work will be prohibited in areas where fire extinguishing systems are in poor condition or out of service, without having a contingency plan, or the support of a fire truck to cover the risk. Work can only be carried out when the fire extinguishing system has been repaired and enabled.



During the execution of hot work, specific and appropriate PPE, according to the task, will be used. Eye and body protection, such as face shields, safety glasses, hoods, respirators, and appropriate protective suits, will be used according to the level of hot work to be performed.



Safety devices, such as flashback arrestor valves, chains, and any other needed in oxy-cutting equipment or gas cylinders, should be checked.



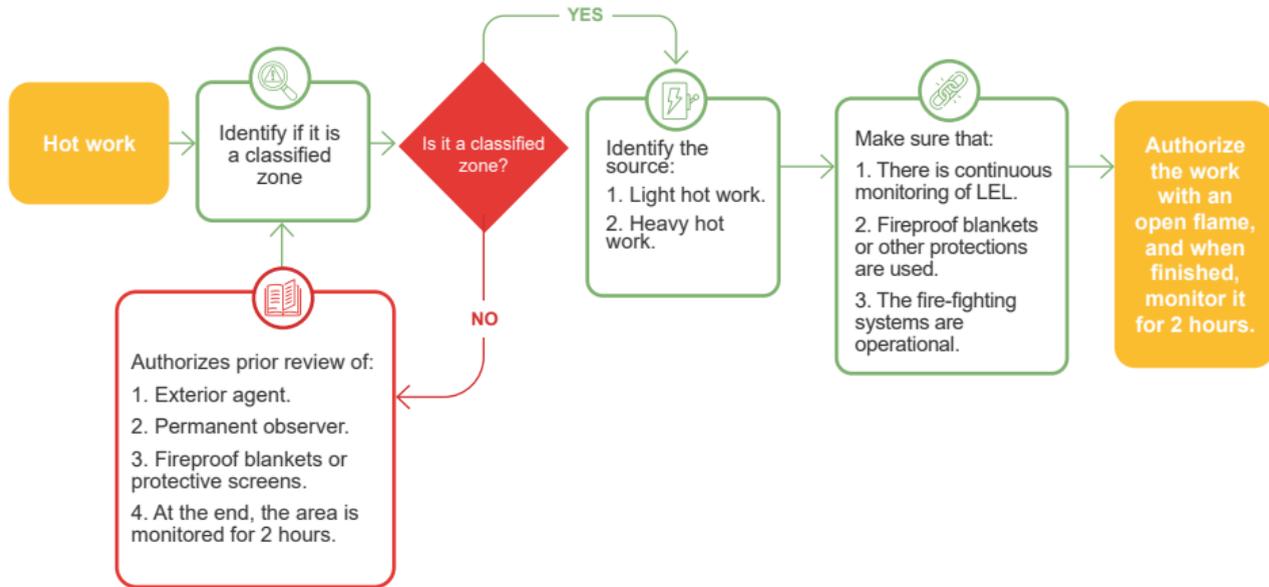
At the end of hot work, it is a mandatory requirement for the person performing the task to make a preventive check for the continuous one-hour period onsite; subsequently, a second hour of responsibility of the field operator should be considered.



The permanent observer must have means of communication, such as a radio transceiver, telephone, or alarm, and will immediately notify the shift Supervisor to activate the emergency response team (emergency brigades) when a fire threat is detected.



FLOW CHART FOR OPEN FLAME WORK



4



Line opening



OBJECTIVES AND SCOPE

The purpose of this procedure is to establish the minimum requirements to be followed during the breaking and/or initial opening of a piping system or equipment containing some fluid, such as water vapor, fluids with temperature, hazardous substances, and/or high pressures. It also applies to interventions in an undrained system (when there is no drainage at the line breaking point). The requirements in this procedure complement the ones in isolation and lockout.



DEFINITIONS



Intervention of lines: Initial opening of lines (primary line intervention), piping systems or equipment by disconnecting flanges, opening valves, removing gaskets, blind flanges, blind disks, and plugs, or by opening ports and accessing a line mechanically.



Breaking of the process (line break / first break): Rupture of process and utility lines (Plant utilities), hoses, connections and containers to the atmosphere by mechanical separation of two pieces of equipment

(i.e., separating two flanges and removing a plug). The flanges, pumps, hatches, threaded pipe, fittings, plugs of exchanger tubes, valves, pipes, hoses, sanitary fittings, or other types of fittings/openings.

Note: Opening a bleed, drain, or vent valve is not considered a mechanical line break.

The breaking is the interruption of the process; however, the concept of breaking is associated with the mechanical separation of the pipe or equipment, as appropriate through a planned task.



Line opening: The opening of a process line through a controllable device such as a valve, for example, when opening a drain, is a line opening.



Securing: A line opening that has been closed with an airtight device such as a blind plug, lid, or flange.



Primary energy isolation device: The energy isolation device closest to the process rupture (first interruption), e.g., a valve.



Verification of de-energization: A method used to verify that the system is without power.

CLASSIFICATION OF HAZARDOUS SUBSTANCES - ALBEMARLE

 CLASS 1 HIGH-RISK CHEMICAL SERVICES	 CLASS 2 HAZARDOUS CHEMICAL SERVICES	 CLASS 3 HAZARDOUS CONDITION SERVICES	 CLASS 4 LOW-RISK CHEMICAL SERVICES
<ul style="list-style-type: none"> • Highly flammable materials with flash point < 23°C. • Highly toxic materials. • Highly reactive materials. 	<ul style="list-style-type: none"> • Flammable liquids with flash point < 60°C. • Strong and weak acids and bases. • Moderate and weak acids and bases. • Solids with a risk of exposure to personnel if released. 	<ul style="list-style-type: none"> • Flammable and combustible liquids not included in class 1 or 2. • Equipment or pipes at a service temperature above 54°C. • Equipment or pipe at a service pressure greater than 150 psig (10.3 barg) • Weak acids and bases. Bases that were not classified as Class 2. 	<ul style="list-style-type: none"> • Water and diluted solutions with similar characteristics. • Non-combustible and non-toxic liquids such as saline solutions. • Non-flammable gas service. • Lubricating oil, grease, or mineral oils.

NOTE: For "Class 1" highly hazardous substances, the permit for the line breaking and/or opening must be authorized and signed by the Plant manager. **The following table indicates the approval level for the line breaking and/or opening permit.**

PERMIT APPROVAL LEVELS

Chemical Class	Can be done:	Authorization Level
2 and 3	A and B	1. Operator
2 and 3	A or B	2. Shift manager
2 and 3	Neither A nor B	3. Head of Area or Superintendent (in replacement)
1	-	4. Plant manager

A: Check the isolation.

B: Check the de-energization.

NOTE: For highly hazardous substances “Class 1”, the permit for breakage and/or opening of lines must be authorized and signed by the Plant manager. The following table indicates the approval level for the breakage and/or opening of lines permit.

Before intervening on a line or equipment, the supervisor in charge of the work must:



Contact the operator responsible for the area being intervened, who authorized the work, and verify that ALL precautions or safety measures have been taken to isolate the work. These include isolating valves to prevent flow, stopping pumps, lockout/ tagout, draining, flushing, and ventilating the system to make the intervention safe.

Before making a break and/or opening of lines, you must:

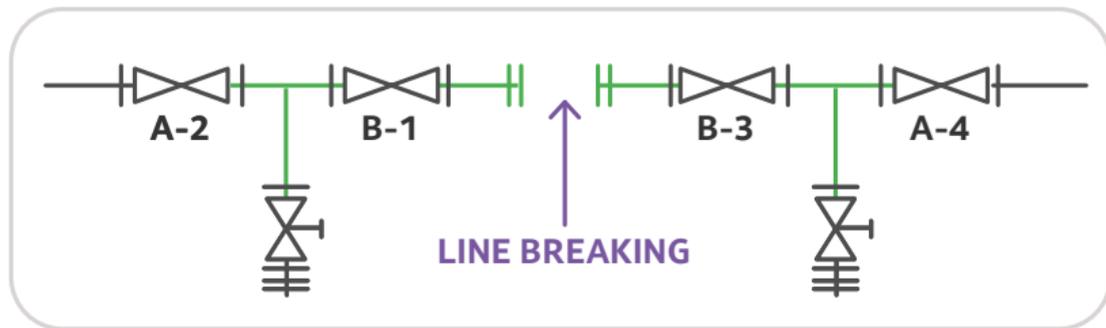


Wash the equipment: Flushing is the system's continuous or cyclic filling and draining. Select a washing method compatible with the process and appropriate for removing residual chemicals from the system.



Use specific PPE: Choose the specific PPE and ensure they are used according to the hazardous substance in the system or tank. A face shield should always be worn. Indicate the necessary PPE on the safe work permit and the JSA-SCAN Energy Wheel.

DOUBLE LOCK-OUT AND BLEED



GREEN = ENERGY CLEARED

B-1 + B-3 = **PRIMARY EID**

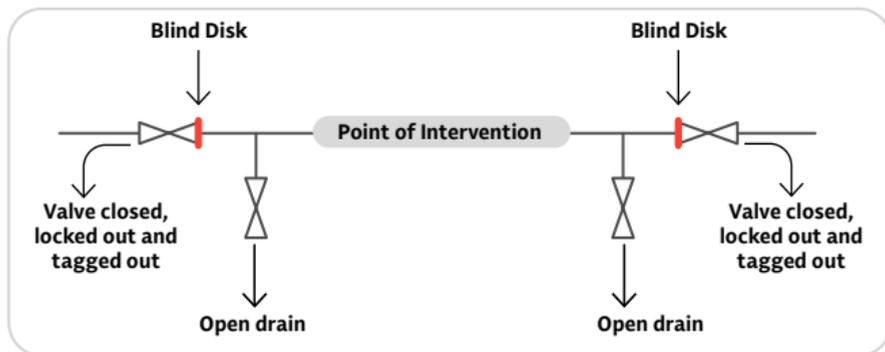
A-2 + A-4 = **SECONDARY EID**

C-1 + C-2 = **DRAINS**

EID: Energy Isolating Device

Drain valves should be closed and tagged out but never locked out.

INSTALLATION OF BLIND DISKS



Drain valves must be closed, tagged out, but never locked out.

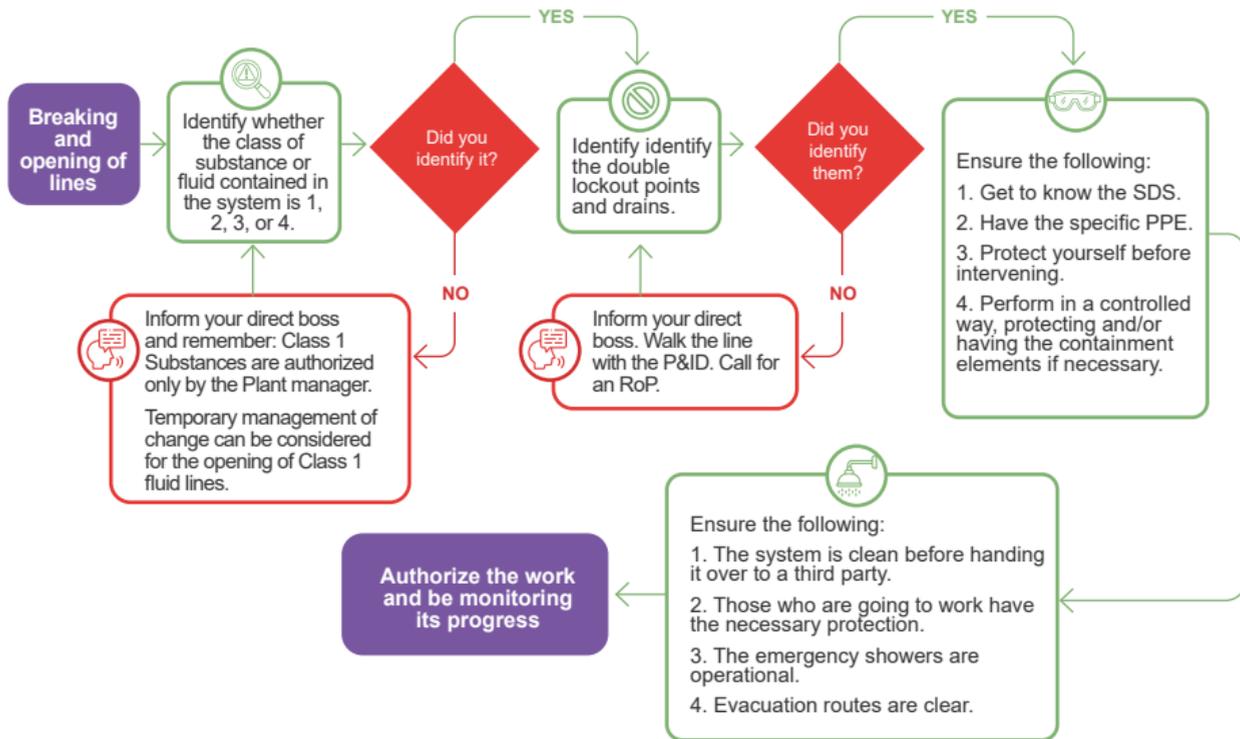
WHEN IT IS NOT POSSIBLE TO ACHIEVE THE DOUBLE LOCKOUT ... LOER (LINE OPENING EXCEPTION REQUEST)



When it is not possible to achieve the required double lockout, there should be a previous safety analysis that formally defines how the task will be approached.

A **Line Opening Exception Request - LOER** analysis must be led by the Shift Supervisor to resolve all the aspects that allow the task to be done while protecting people and the environment.

FLOW CHART FOR LINE OPENING



5



Works at height



OBJECTIVES AND SCOPE

The purpose of this procedure is to define the height at which fall protection is required so that the work can be performed safely. Establish personal systems for fall arrest in the requirements and technical specifications that this equipment must comply with.

This procedure applies to the company's employees, contractors, vendors, or those who work permanently, part-time, or occasionally on Albemarle's sites.



DEFINITIONS



Full Body Harness (FBH): This is a full-body industrial harness or restraint harness to stop a person's free or severe fall. It is an obligation for all personnel working at a height of 1.2 meters. The harness is a component

of the fall arrester system and can comprise synthetic fiber bands, adjustment elements, hoops, and other pieces arranged and adjusted suitably on a person's body.



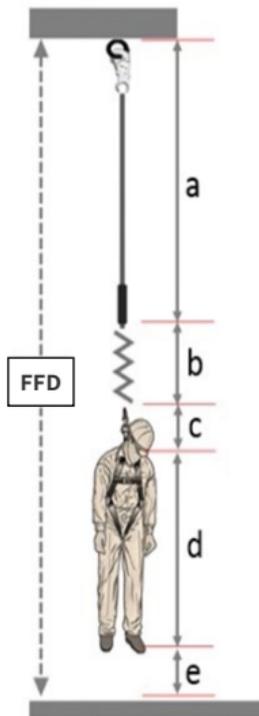
Lifelines: These are components of a fall protection system/equipment, consisting of a nylon rope or galvanized steel cable, certified as lifelines, installed horizontally or vertically, stretched and fastened at two or three anchoring points to grant mobility to personnel working in elevated areas.



Fall arrester system: This is a set of devices that act during a fall and after its arrest.



Retractable line: A fall-arrester device with an automatic locking function and a mechanism for tensioning and retracting the tied element.



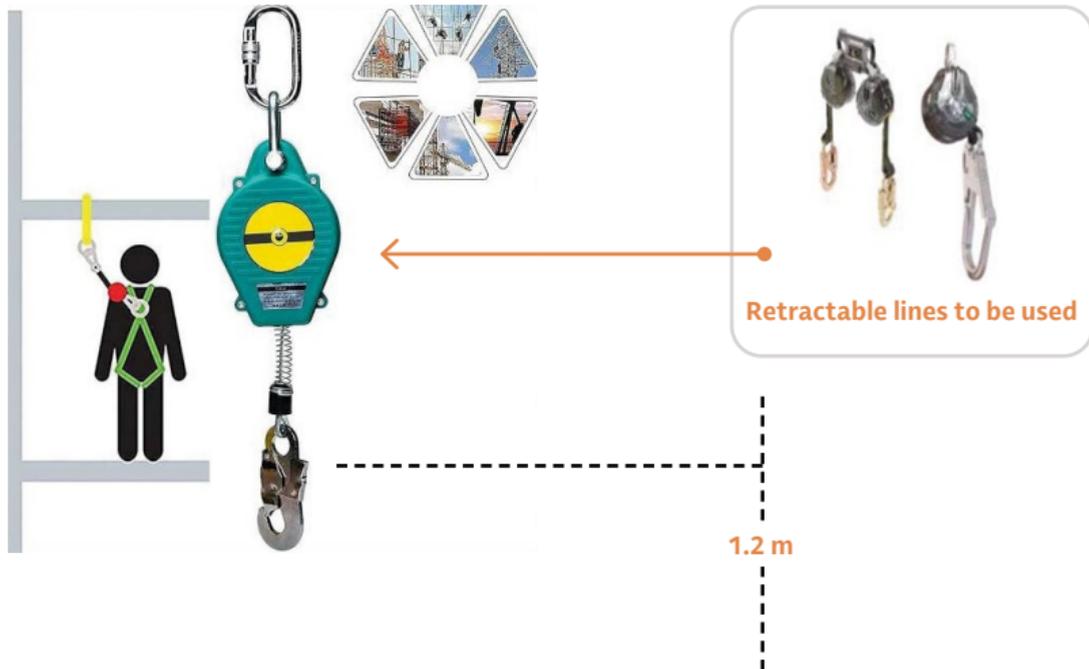
Calculation of the free fall distance

- a) Hook-to-hook lifeline length
1.80 m +
- b) Shock Absorber extension
1.10 m +
- c) Elongation or stretching of the harness
0.30 m +
- d) Average height of the user to the dorsal ring
1.70 m +
- e) Safety distance for prevention
0.30 m

FFD = FREE FALL DISTANCE equivalent to 5.20m

$$\text{FFD} = a + b + c + d + e$$

PROTECTION FROM 1.2 TO 6 METERS





INSPECTION



Rings for positioning works

Dorsal ring

Each employee should check their own fall protection equipment daily before each use by checking:

Harness

Inspect the fiber by bending it into an inverted "V" shape with your hands in a 6- to 8-inch stretch. Look for damaged edges, frayed fibers, discontinuous seams, cuts, or chemical damage.

Pay special attention to the part around the buckles and the D-ring.





Workers should be trained according to their specific role in relation to work at physical height.



The Personal Fall Arrest System (PFAS) should be used whenever personnel work in positions where their feet are 1.2 m above the ground or work surface level.



For works above 6 m. in height, traditional systems such as lines with shock absorbers are allowed.



All personal fall arrest equipment and systems must be used as designed, per the manufacturer's specifications and regulatory standards, and guides for selecting and controlling personal protective equipment for works with fall risk.



All PFASs must be compatible with each other, harness, lifelines, and retractable lines.

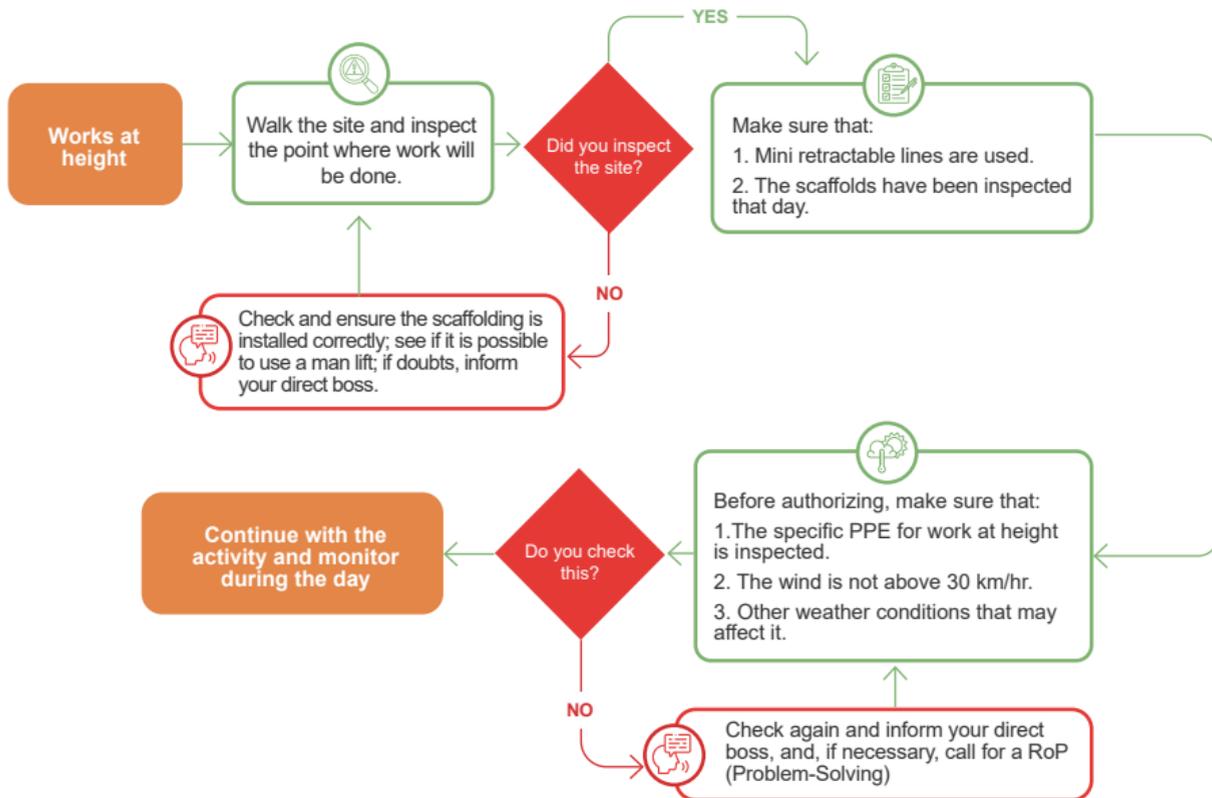


People must be able to perform work at a physical height. For this, it is mandatory to have the pre-occupational or occupational examination by the respective Mutual Insurance Company specific to perform this task.



Inspect all scaffolds or work platforms at height and ensure they have the daily inspection by the person in charge or responsible for the scaffolding.

FLOW CHART FOR WORK AT HEIGHT AND PERSONAL FALL ARREST SYSTEM



6



Light vehicles



OBJECTIVES AND SCOPE

The objective of this procedure is to eliminate or control the occurrence of serious or fatal accidents from driving light vehicles.

This procedure applies to the company's employees, contractors, vendors, or those who work permanently, part-time, or occasionally on Albemarle's sites.



DEFINITIONS



Vehicle: A machine that allows people, animals, and/or things to be moved from one place to another. Within this category are cars, vans, and trucks.



Driving: The action and effect of driving, carrying, transporting, or displacing people, animals, or things.



Defensive driving: Driving considering the unsafe behaviors of other drivers and adverse environmental conditions.



The requirement to drive a light vehicle as part of the duties must be expressly indicated in the employment contract, job description, or written internal authorization.



Current legal regulatory requirements: All drivers must have a valid municipal or international license. The suspension or expiration of the municipal license immediately disables the issued internal license.



Have an up-to-date, rigorous psychosensotechnical exam performed by the mutual insurance company or another accredited body.



Have a defensive driving course from the mutual insurance company or another accredited body.



Any driver of a light vehicle who, by medical prescription, is undergoing treatment with a legal substance or any medication that, in a doctor's opinion, significantly alters their psychomotor conditions, should report their condition to their direct supervisor.



No driver of a light vehicle may be under the influence of alcohol or illegal drugs.



Every driver must wear a seat belt and control their mandatory use by passengers.



Every driver is responsible for their vehicle, its maintenance, upkeep, and checks, and must immediately inform their Direct Supervisor of any anomaly detected or accident in which they are involved.



Vehicle lights must be used both during the day and at night on Albemarle's premises.



Respecting the speed limits and all traffic signs on Albemarle's sites and public roads is mandatory.



Wedges (two) are mandatory both on level ground and on slopes, except in places where a wedge is built into the ground.



The inspection of the vehicle must be carried out daily and registered by the driver at the beginning of their working day before starting the engine.



External vehicles must have an authorized pass or be on the list of vehicles authorized for entry, which will be requested or verified on the sites.



Any vehicle that does not have authorization to enter must be parked offsite.



The load of the vehicles may not exceed the maximum weights and dimensions that the technical characteristics of the vehicle or equipment allow.

LIGHT VEHICLES ARE CLASSIFIED AS:

- Cars (taxi).
- Vans.
- All-terrain or Sub, Station Wagon, or similar type Vehicles, with or without 4-wheel drive.
- Carry All.
- Vans and people carriers for transporting cargo up to 3,500 kg.
- Minibuses or vans for personnel transport, with a capacity of fewer than 17 seats, excluding the driver.
- Buses for personal transport, with a capacity of more than 17 seats, excluding the driver.
- Emergency and Rescue Vehicles: Ambulances, fire fighters, and rescue vehicles.
- Other vehicles classified as light vehicles by the Health and Safety Department.



MINIMUM EQUIPMENT:

1. EXTERNAL AND INTERNAL ROPS (ROLLOVER PROTECTION SYSTEM)
2. REVERSE ALARMS
3. REAR WINDOW PROTECTIVE MESH AND SECURITY FILM
4. SAFETY WHIPS
5. WEDGES AND NUT LOCKS
6. BEACONS
7. REFLECTIVE TAPE

7



Lifting and lifting accessories



OBJECTIVES AND SCOPE

The objective of this procedure is to establish the minimum standards for operations with lifting equipment and accessories to eliminate or control the occurrence of serious or fatal accidents from this operation.

This procedure applies to the company's employees, contractors, vendors, or those who work permanently, part-time, or occasionally on Albemarle's sites.



DEFINITIONS



Rigger: Communicates by signals or radio transmitter with the crane operator. The Rigger must be certified and authorized in writing by a competent body.



Crane: Equipment with original design, authorized for lifting maneuvers to load and unload materials.



Accessories for lifting maneuvers: All the support elements used for lifting maneuvers will be determined before use. Slings, chains, shackles, hooks, etc., will have certified quality.



Hoisting: An activity that involves lifting or lowering a load by maneuvers.



Rigging: Overhead crane-type lifting equipment without a cabin, commanded by a remote button control.



Overhead crane: Equipment that allows lifting and moving heavy loads.



The SWP (safe work permit) applicant will sign as the person in charge of the maneuver, shift supervisor, or chief operator of Albemarle, Maintenance Supervisor, Capital Project, or Projects.



The Equipment Operator must submit and make a Lifting Plan for each type of Lifting to be performed to the person in charge of the maneuver, shift supervisor, or chief operator of Albemarle, Maintenance Supervisor, Capital Project, or Projects.



The Equipment Operator must have a municipal and internal license, which enables them to drive or operate the corresponding equipment on the sites.



Driving or operating a crane, boom truck, or any lifting equipment is strictly forbidden without the corresponding municipal license and internal license authorizing it.



Any lifting equipment operator who, by medical prescription, is undergoing treatment with legal substances or any medication that, in the opinion of a doctor, significantly alters their psychomotor condition, must report their condition to their direct supervisor.



All cargo lifting maneuvers with portable cranes must be carried out by specialized personnel, with direct supervision of the person responsible for the maneuver to carry out effective control in the field, plan the maneuvers, and strictly comply with the equipment manufacturer's instructions.



The crane operator must always be assisted by a signalman (Rigger).

The hand signals must be clear and precise, conforming to a recognized system or code.



Any load equal to or greater than one ton, which involves cargo lifting maneuvers, will require the SWP, and for those maneuvers of loads less than 1 ton that involve critical conditions, such as height, confined spaces, crossing work areas, among others, a JSA- SCAN will be prepared.



All the support elements used for lifting maneuvers (slings, chains, shackles, hooks, etc.) will be determined before use and will have certified quality.



No support element for lifting and load movement may be out of specification. Check the applicable technical standards indicated in the manufacturer's operations manual.



All lifting accessories must be checked before each maneuver, leaving a written record of this.



It is strictly forbidden to carry out lifting maneuvers above live electrical lines, hazardous fluids, equipment in operation, or those susceptible to damage due to the detachment of the load.



Before starting the maneuver, the area must be fenced off with solid barriers, cones, and warning chains to prevent the accidental entry of personnel through the hoisted cargo area.



The maneuvering area must be free of obstacles for turning the equipment.



The maximum speed in wind gusts for lifting maneuvers should not exceed 35 km/hour. It is measured with an anemometer on the equipment, crane, or by personnel in charge of the task.



Every operator must carry out pre-use checks of the overhead cranes or rigging they are going to work with during the shift to verify that the mechanical and operating conditions are as safe as possible and follow the equipment's working design.



The operator must announce by horn their intention to execute a movement. The rigging must have automatic audible alarms to operate the equipment. Loads must not be moved above other workers.



It is forbidden to pass or transit under any suspended load. This action will be considered a severe breach of the safety regulations.



The equipment will be parked in places authorized and marked for them.



Lifting equipment must have its maximum lifting capacity clearly marked.



Lifting equipment must have operational maximum load limiters.



Lifting equipment must have an equipment maintenance program.



Loads should never be left suspended. When the operator must leave the controls, these should always be left on the floor. Caution should be taken when the equipment stops being used that the hooks are left up to the upper limit switch.

8



Equipment *guards and protections*



OBJECTIVES AND SCOPE

The purpose of this procedure is to establish minimum standards for the protection or fixed guards of machines and/or motorized equipment to control the risks and mechanical hazards.

This procedure applies to the company's employees, contractors, vendors, or those who work permanently, part-time, or occasionally on Albemarle's sites.



DEFINITIONS



Machine or Equipment: An apparatus for the application and use of energy, which may have fixed and movable parts, each with a specific function.



Danger Zone or Danger Line: This is any dangerous area or point inside or around a machine where the presence of an exposed person poses a risk to their health or safety. Its outline is the danger line.



Safety Distance: This is the minimum distance between a presence detection device and the danger line, which guarantees that this line will not be reached before the dangerous machine or element has ceased to be dangerous.



Guards for Machines: Means of protection that prevent or hinder the access of people or parts of their body to the danger point or area.



Any person who has access to work areas with risks/hazards related to moving parts or parts of machinery or equipment must be adequately protected by protective elements or guards against moving parts or mechanisms.



All risks and hazards associated with moving parts or mechanisms of machinery and equipment must be eliminated.



A guard is a fixed barrier that must enclose the danger zone to prevent a worker's hand or other part of his body from being placed around, under, through, or on the guard to reach the dangerous parts of the machines that are in motion.



The guards must protect workers who perform a service or maintenance of the machines, whether building, installing, assembling, adjusting, inspecting, modifying, or maintaining.



When protections are built without technical specifications, they can create new risks for the operator and others, such as sharp points, protruding bolt heads, rough surfaces, splinters, cutting elements, etc.



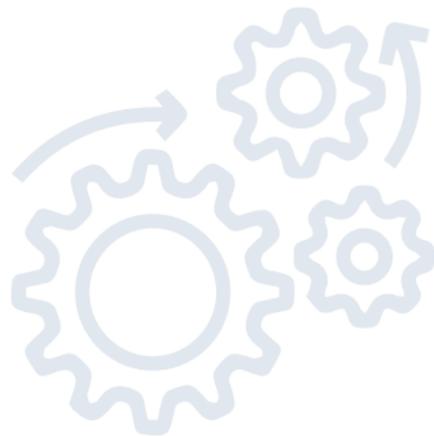
In the design and construction of the protections, the necessary openings must be provided and/or considered so that the daily or regular maintenance of the machinery can be carried out.

✓ The protections must not obstruct production nor reduce or affect the efficiency or performance of the operator. On the contrary, they must guarantee the safety of the operator so that they increase their performance.

✓ The protections must be built in such a way that they are securely attached so that they do not come loose or move with the vibrations of the machinery or cause interference with moving parts of the machinery.

✓ There may be conditions involving residual hazards that require warnings, training, or instruction. The warnings of the risks or hazards of the machines can be indicated by signs and/or signals and must be in Spanish and English.

✓ The protections must always be considered as an integral part of the machine. The protections must be clearly visible and maintain the design line of the machine or equipment. The protections must not hinder or impede the lighting or ventilation.





SUITABLE MATERIALS FOR THE MANUFACTURE OF PROTECTIONS

- **WIRE MESH**
- **PROFILES**
- **FOLDED METAL**
- **PERFORATED METAL**
- **METAL PIPES OR TUBES**
- **METAL TAPES OR STRUCTURES**

CRITICAL POINTS IN MACHINES AND/OR EQUIPMENT

The three most relevant (dangerous) areas or elements that contribute in the generation of accidents and that must be protected are:

Transmissions

A set of mechanisms whose mission is to transform or transmit motion from the motor or energy source to the machine.

Moving Parts

This critical area refers to parts where energy transfer occurs, taken from the initial transmission system to the point of operation, namely, rotating or oscillating parts, moving heads, cams, feed rollers, etc.

Point of Operation

The area of the machine/equipment where work is performed on a material being processed, or where there is an associated hazardous area during the operating cycle of a machine.

9



Machinery and mobile equipment



OBJECTIVES AND SCOPE

The purpose of this procedure is to establish minimum standards for the operation of machinery and mobile equipment to minimize the risks that may occur in operations.

This procedure applies to the company's employees, contractors, vendors, or those who work permanently, part-time, or occasionally on Albemarle's sites.



DEFINITIONS



Machine or mobile equipment: Mobile construction equipment is mainly used for the horizontal transfer of construction materials or waste. Some of the most commonly used machinery in construction are trucks (dump, box, tanker, etc.), backhoe loaders, diggers, forklifts, bobcats, and front loaders, among others.

RESPONSIBILITIES

Supervisors: Control, supervise, comply with, demand, and verify strict compliance with this procedure and some other specific ones as appropriate, in addition to disseminating it among the people in their team.

Provide the necessary conditions and means for the full compliance of this procedure.



Every machine or mobile equipment operator must be monitored, confirming that they comply with the provisions of the current legislation and that the corresponding certifications of each operator are complied with for

each machine or equipment that operates on the sites.



Only employees and Contractors who are duly authorized and accredited by each site may drive, operate, or test motorized vehicles or equipment on Albemarle property.



Everyone who drives vehicles or operates equipment should be aware of the inherent risks in this activity and the safety measures to control these risks, strictly applying them in their work.



Every driver or operator must verify, at the beginning of their working day, the proper functioning of the equipment, machinery, and control elements with which they must carry out their work.



No person may drive or operate equipment or machinery when they are in poor physical condition or under the influence of alcohol, drugs, or medication that alters the necessary skills for driving.



The driver or operator of a vehicle or motorized equipment is prohibited from handing it over to a person who does not possess an internal driving license.



Every driver or operator is responsible for their equipment or mobile machinery, for its good maintenance, upkeep, and checks, and must immediately inform their Direct

Supervisor of any anomaly detected or accident in which they are involved.



All drivers or operators must respect the traffic signs, whether permanent or occasional, that are onsite.



The lights of the machinery and mobile equipment must be used both during the day and at night onsite.



It is prohibited to leave mobile equipment or machinery with the engine running without the driver inside; therefore, the driver must ensure, before leaving the cab, that its brakes are on and engaged, and when the terrain is uneven, safety wedges/ chokes are used.



Equipment must be operated following what is indicated in the operation manuals, avoiding maneuvers against people, the equipment itself, and the loads being moved at all times.



It is forbidden to transport containers which contain combustible liquids or high-pressure gas cylinders in the buckets of the front loaders, bobcats, and backhoes. Likewise, the transportation of people in the buckets of this equipment is prohibited.



Tankers that transport fuels and hazardous substances must be certified by the SEC (Superintendency of Electricity and Fuel). Signaling requirements as per NCh 382.



Heavy machinery that enters sites must have a certification from the manufacturer, its representative, or a certified company. The certification must consider mechanical, electrical, hydraulic, and pneumatic aspects. It must also have its respective Checklist. The equipment that do not follow the standards will NOT be allowed to enter.



THE FOLLOWING EQUIPMENT IS CONSIDERED HEAVY MACHINERY:

- Front Loader
- Fork Lift
- Excavators
- Backhoe
- Motor Grader
- Bulldozer
- Wheel dozer
- Roller
- Bobcats
- Trucks for transportation, tankers, hazardous substances, others
- Drilling machines



THE REQUIREMENTS TO MEET WITH WILL BE THE FOLLOWING:

- **Maximum age:** 10 years, including year of manufacture.
- **Odometer or hour-meter (Mechanical or Electrical):** 30,000 hours.
- **Air conditioning** in good condition.
- **Amber or blue beacon.**
- **Reversing alarm.**
- **Wedges.** Marked with equipment registration plate.
- **Logo of the company they belong to,** located on both sides of the equipment.
- **Certification in mechanical,** electrical, and hydraulic conditions, awarded by a certified company.
- **Safety whip with a red flag,** flashing red light, located on the left side (driver). With a minimum height of 1.5 meters above the roof (when applicable).

10



Electrical *safety*



OBJECTIVES AND SCOPE

The following electrical regulations have been prepared to establish the rules and procedures that guarantee the correct application of Electricity in Albemarle's equipment, systems, and facilities and prevent accidents to people and material damage. The provisions of these Electrical Regulations are mandatory for the electrician staff and service users in Albemarle on any shift or day of the year. The application and control of their compliance falls upon the supervisors in general, and in particular, to those responsible for the Maintenance areas.

The objective of this Electrical Regulation is to have a standard for electricians who operate and maintain Albemarle's industrial plants, considering the requirements of Article N° 25 of the Mining Safety Regulation (SD 132), which states: "Notwithstanding the existence of the Health and Safety Regulations required by the country's legislation, mining companies must prepare, develop, and maintain internal regulations specific to critical operations, which guarantee the physical integrity of workers, the care of facilities, equipment, machinery, and the environment."

This procedure applies to the company's employees, contractors, vendors, or those who work permanently, part-time, or occasionally on Albemarle's sites.



No person may install, modify, operate, adjust, repair, or intervene in High and Low Voltage electrical equipment and installations at the Albemarle Company without having been instructed and authorized by the Electrical Maintenance Supervision of the sites.



Electricians in general, both from the company and from E.S.C. (external service companies), including Supervisors, must have approved training for each voltage level, following the requirements established by the Maintenance Supervision and Health and Safety Management, as part of the duties inherent to the roles they perform.



All electrical personnel, during their work activities, should not carry on their body or clothes, metallic objects or conductors of

electricity, such as watches, bracelets, earrings, rings, chains, clothes with metal buttons or clasps, belts with metal buckles, keys hanging from their clothes, or metal pencils.



The responsible supervisor must inform all staff about the risks inherent to the activities being carried out, the health and safety measures, and the correct working methods (referred to Article 21, SD 40). Likewise, the person responsible for the work must clearly and precisely instruct their personnel regarding the activities to be carried out, the safety measures that must be adopted, and the risks present in each task.



The electrical personnel, instrumentists, or operators of electrical equipment may not alter, modify, or remove any installation, operation, or safety device that has not been expressly authorized by the Electrical Chief or whomever they appoint as their replacement.



A written or electronic register of updates must be kept in the electrical rooms, highlighting daily information on the most important jobs executed by the electrical personnel during their shifts.



Any intervention to electrical equipment and installations must be requested, coordinated, and validated by the electrician responsible for the area or whoever replaces them.



The electrician responsible for the area will coordinate, with the person in charge of the works, the de-energization, energization, and the lockouts applied to the equipment involved in the works being carried out.



A single-line diagram of the electrical circuits must be kept available in each electrical room.



Each area must keep an updated file with all the technical information of their electrical equipment, installations and their operating manuals.



Every electrical room must be located and built to protect it against water or flooding, destruction by ground movements, or cave-ins.



The electrical rooms must be provided with clearly marked evacuation routes, which can be used in emergencies by personnel who are temporarily or permanently inside.

EMERGENCY PROVISIONS:

The following signs with warnings and instructions, made from a durable material, should be displayed wherever necessary and be fixed in appropriate places:



- a. A sign prohibiting unauthorized persons from entering places specially designed to contain energized electrical equipment or facilities.



- b. A sign prohibiting any person not authorized by the Company from operating or intervening electrical appliances or any element of the facility.



- c. A sign indicating the instructions on the procedures to be followed in cases of fires in premises where electrical devices are located.



- d. A sign indicating how to provide first aid to those who come into contact with energized conductors.



- e. A sign specifying the person to whom any accident or dangerous event of electrical origin should be notified and how to contact them.



- f. A sign identifying, on the surface, the place where there are buried cables and electrical equipment.



Primary containment



OBJECTIVES AND SCOPE

The objective of this procedure is to have a planning tool that allows responding in a uniform and rational way for the initial containment against accidents that may occur in the handling of waste and/or hazardous substances, measured according to the minimum impact they may have on the safety of people, the environment, and the company's assets.

This procedure applies to the company's employees, contractors, vendors, or those who work permanently, part-time, or occasionally on Albemarle's sites.



DEFINITIONS



Containment: The action taken to keep a Hazardous Substance inside its container.



Primary containment: Primary containment refers to ordinary operations (Tanks, containers, pipelines, trucks, tanks, etc.). It requires the use of appropriate equipment, accessories, materials, and/or storage containers and the use of equipment.



Spill: Abnormal accumulation of liquid or solid that escapes due to the container's rupture.



Leak: Accidental leakage of a liquid or gas from the container holding it.



Control: Action to eliminate or limit the development of an incident, to avoid or minimize its consequences.



The person who discovers a spill or leakage of any waste or hazardous substance **SHOULD NOT**, for any reason, try to control it on their own. Their action, if the conditions allow it, "will be to make a confinement dam" and report immediately.



Immediately inform the direct supervisor, shift supervisor, area manager, or plant operator of the situation observed via radio, telephone, or other available means.



Carrying out (only if required) the evacuation of the affected area without rushing, acting calmly, and following the instructions given by the shift supervisor, chief operator, or the emergency brigade.



When someone comes into contact with any dangerous substance, they should immediately go to a safety shower or eyewash station, which they must identify before starting work.



Carry the elements to minimize injuries in case of contact with dangerous substances, such as diphtherine.



The containers must be compatible with the hazardous waste or substance's (RESPEL or SUSPEL in Spanish) physicochemical properties, volume, and weight to collect waste or hazardous substances. The stability of the operation must be guaranteed for the loading and unloading cycles.



Hazardous waste must be identified and labeled according to the classification and type of risk established by the Official Chilean Standard NCh 2190/2019, 1411/4 2000, and treated according to the current SD 148.



The hazardous waste and hazardous substances storage yard will be equipped with portable fire extinguishers in accordance with the stored fuel load and what is indicated in the current regulations, SD 594, SD 43, and D.148.



Have a primary containment kit in the areas where hazardous substances are stored, hazardous waste yard, and operational processes that use a hazardous substance to be able to control an event where it is necessary to contain a spill.



When starting to control the leakage or spillage of the hazardous waste or substance, this can be done by installing plugs, clamps, or other containment elements that must be outlined on the hazardous substance or waste's Safety Data Sheet.



Containing a spill requires performing certain actions, which will be carried out by the emergency brigade and operations personnel together with the HSE area.



A weekly inspection must be carried out in the area that handles hazardous substances, a task done by Operations, proceeding to perform the containment of any leak and subsequent repair of the pipe, flange, equipment, TKS, and others.



**INSPECTIONS OF
PROCESS LINES**



**KNOW AND APPLY THE
EMERGENCY PLAN**



**CONTAINMENT AND CONTROL
OF SPILLS AND/OR LEAKS**



**HAVE THE ELEMENTS FOR SPILL
CONTROL**

12



Fire-fighting systems



OBJECTIVES AND SCOPE

The objective of this procedure is to define acceptable frequencies and test protocols for fire pumps and water-based and other fire extinguishing systems at Albemarle Plants and the minimum requirements for emergency showers and eyewash stations installed in the Plant.

This procedure applies to the company's employees, contractors, vendors, or those who work permanently, part-time, or occasionally on Albemarle's sites.



DEFINITIONS



Fire-fighting water network: A set of equipment and accessories used to take and distribute water to the facility protection systems.



Fire-fighting foam network: A set of equipment, pipes, and fittings used to conduct and distribute foaming solutions to foam-forming equipment to protect the facilities.



Sprinkler: Nozzle for dosing water or fire-fighting foam as a curtain aimed at a specific area.



Emergency Shower: A device specifically designed and intended to supply the rinsing fluid in volumes sufficient for said fluid to cascade into the whole body.



Eyewash/Face: A device that is used to supply fluid to irrigate both the face and the eyes simultaneously.



Do not intervene in any fire network system unless it is in an emergency and its use is required.



The maintenance, testing, and inspections of fire-fighting systems must be carried out by trained personnel through training and experience.



Records of inspections, tests, and maintenance of the system and its components, fire network, showers, and eyewash stations should be kept and made available to the competent authority when required. The original logs should be kept for the system's lifetime.



Construction drawings, original acceptance test records, and manufacturer's maintenance notifications should be kept to ensure proper care of the system and its components.



Inspection, testing, and maintenance activities must be carried out safely, evaluating cases such as confined spaces, protection against falls, and special risks when working with dangerous substances, which should be warned to those who perform these tasks.



To ensure the mechanical integrity of the primary fire extinguishing systems and fire water supply equipment in production facilities, the standards published by the US National Fire Protection Association are taken as a reference. (NFPA 25: Standard for inspecting, testing, and maintaining water-based fire protection systems).



The fire, shower, and eyewash systems should be used only in case of any emergency, and their use in other activities is prohibited.



The ANSI (American National Standards Institute) standard establishes the requirements for eyewash stations and showers used in the urgent treatment of the eyes or body of a person exposed to harmful materials. It covers the following types of equipment: Emergency showers, eyewash stations, face washing stations, and combined stations.



The emergency showers connected to pipes and autonomous ones must have the capacity to supply rinsing fluid with a minimum flow of 75.7 l/min (20 gpm) for a minimum of 15 minutes. If shut-off valves are installed in the supply line for maintenance purposes, devices must be provided to prevent unauthorized shut-off.



This must be located in an accessible area no more than 10 seconds from the place of possible risk and must be on the same level.



The emergency shower will be activated weekly for a sufficient period to ensure proper operation.



The temperature of the supplied Rinsing Fluid. The main factors in providing first aid are continuous and timely watering of the affected tissues during the recommended watering period.



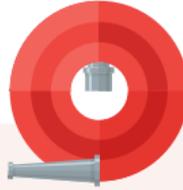
A pressure of 40 PSI is recommended. However, the standard only specifies that the flow rate should not be harmful to humans.

Any modification or alteration of the fire-fighting or emergency system must be reviewed by a management of change with the approval of the site management.



FIRE EXTINGUISHERS

- Water + Additives
- Automatic Dust
- CO₂
- Kitchen F
- Metal Type D
- Portable chemical dust



PROTECTION SYSTEMS

- Automatic Fire Detection
- Fire hydrants
- Pressure Groups
- Moisturizers
- Carbon monoxide



SIGNS

- Emergency lighting
- Fire Doors
- Luminescent Signage



Fire protection systems



Showers and eyewash

13



Excavations *and trenches*



OBJECTIVES AND SCOPE

The objective of this procedure is to have a method that allows excavations and trenches to be made safely to meet the requirements for all activities that involve these, identifying possible interferences with services that contain or potentially contain live lines, such as electricity, water lines, gas, telephone, communications, hazardous substances, or that provide structural support.



DEFINITIONS



Excavation: Any man-made cut, cavity, trench, or depression in the earth's surface. Excavations produce unsupported soil conditions. All excavations carried out with machinery and any manual excavation more than 30 centimeters deep require an excavation permit.



Protection system: A method of protecting people from landslides, material that could fall or roll from an excavation, or the collapse of adjacent structures. Protection systems include support systems, slope and bank systems, shield systems, and other systems that provide the necessary protection.



Shield (Shield system): A structure that can withstand the forces imposed by a collapse and thus protect the people inside. Shields can be permanent structures or designed to be portable and advance as the work progresses.



Ramp: An inclined walking or working surface used to access from one point to another and is built with earth or structural materials such as steel or wood.



Trench: A narrow excavation made under the ground's surface in which the depth is greater than the width, and this width does not exceed 4.5 meters.



Slope: An artificial or natural slope that prevents material from falling into trenches or excavations. In the Plant, the maximum slope angle will be 53°.



Prospection: Excavations carried out manually, with an electrically isolated shovel (fiberglass), to locate any existing underground services (interference).



Obtain the Excavation Permit at least 48 hours in advance to be able to review the plans indicated by the permit format.



Before starting an excavation, it should be checked if there are drawings of the area or sector being intervened, indicating the location of electricity, gas, drinking water, process water, or brine lines. If the document exists, the excavation permit must be made based on this information.



If there is no plan for the area being intervened, drill holes or manual excavations should be made to detect the presence of lines. If this activity is not possible, a sector survey must be done using Georadar.



Before starting the activity, the area being intervened must be demarcated and coordinated using salt, chalk, slaked lime, ropes staked to the ground, or any effective method for demarcation.



Open excavations with a depth of 30 cm or more must be protected by a warning barrier, which must be installed a minimum of 1.5 meters from the edge of the excavation

toward the outside. Wet the area where digging is being done to avoid pollution.



If a trench or excavation endangers the stability of a building or wall, reinforcements must be installed.

Excavations and trenches adjacent to excavations that have been filled in, or

those subject to vibrations from mobile equipment, fixed equipment, trains, or others, must be secured by an appropriate support or shoring system.



In any excavation of 1 or more meters in depth, where there are no access ramps and the entry of a worker is necessary, and access ladders must be provided,

which must extend at least 1 meter over the upper base of the excavation and be properly secured to prevent its movement.



Walkways must be provided in all excavations where workers must or are authorized to cross. These must be made of boards of uniform size joined by crossbeams; the walkway platform must have a minimum width of 60 cm. and be supported 45 cm. on each side. The walkways must have upper and intermediate railings.



Workers should be protected from excavated materials or other materials and equipment that may pose a risk by exerting a load on the edge of the excavation or by falling or rolling into it.



Visual inspections provide qualitative information about the excavation site in general, the soil adjacent to the excavation, the soil forming the sides of the open excavation, and the soil sampled from the excavated material.



No one will be allowed access under loads moved by mobile equipment or near vehicles being loaded by mobile equipment. Workers exposed to vehicle traffic in the excavation area will wear high-visibility vests with reflective tapes.



It is forbidden to dig with machinery while personnel are in the excavation at a distance equal to or less than the arm's length of the fully extended back-loader.



It must be verified that there is no accumulation of gases in excavations where there is equipment or mobile equipment with internal combustion engines.





It is strictly forbidden for all company personnel, contractors, subcontractors, and workers to start excavation work without the excavation permit and an JSA-SCAN.



The access of any worker to the excavation area is strictly prohibited when the mechanical equipment is in operation.



- It is forbidden to keep the equipment running without the operator inside.
- It is forbidden to allow other people to climb on the equipment or operate it without proper authorization.
- It is forbidden to leave the equipment in places where other specific equipment for excavation is operating.
- It is strictly forbidden to start excavation work without clearly identifying where the power lines, pipes, or others pass through.



A work permit will be required for the following tasks:



- Any excavation carried out from floor level to 30 cm. of depth.
- Excavations inside the facilities with public or private utility lines, pipes, or buried utility lines.
- Any area where there may be underground water and brine channels.
- Any excavation that runs parallel to or intersects a road or highway, either of the project or public road, which may alter the evacuation of personnel or block the entrance or exit of roads to the work of the camp, offices, main work areas, etc.
- The excavation permits must be generated before the excavation is carried out. When a road has to be closed due to an excavation, the excavation and layout permits must be submitted the day before the start of the work.

14



Drilling and boring



OBJECTIVES AND SCOPE

The purpose of this procedure is to establish the minimum controls that allow reducing the risk associated with events with the potential to generate fatalities due to falling drilling steels or contact with high-pressure hoses, during drilling and boring activities.

This procedure applies to the company's employees, contractors, vendors, or those who work permanently, part-time, or occasionally on Albemarle's sites.

- Impact and/or crushing by falling of drilling steels during their change and/or movement.
- Exposure and/or contact with high-pressure hoses (uncontrolled release of energy).



DEFINITIONS



Telescopic handler: Self-propelled mobile equipment on wheels equipped with a hinge arm with variable reach intended for handling loads, which is suitable for moving over uneven terrain.



Drilling Steels: Accessories used in drilling, such as tricone bits, drill rods, bits, hammer, shoe, drill collar, adapters, and casing.



Drill bar: This steel tube transfers the thrust and rotation from the bore's rotation unit to the drill bit.



Equipment or bore: This is any equipment that provides a service in the operation, such as a tanker, boom, drilling bore, and fixed and mobile tools.



Platform: A work area that is intended to carry out drilling work where the boring equipment, shed, cyclone, tools, and/ or accessories for drilling, in general, are installed, etc.



Workers should be trained according to their specific roles for the bore and drilling rigs.



All workers participating in the work must include at least the operation of the equipment, parts, and pieces, specific tools for changing steels, associated risks, parameters, and safety systems of the equipment.



The area where there is a risk of crushing, being hit by falling drilling steels, or by the uncontrolled release of energy (for example: bar change, fuel filling, handling of steels, etc.) must be segregated off and restricted, where only the personnel

involved in the activity can enter. To enter the area, the responsible supervisor must authorize it, and the segregation of the perimeter must be evaluated according to the risk assessment. The use of hazard tapes for work will not be authorized.



Before starting drilling activities, the drilling rig must be checked with the “Rig Reception and drilling rig equipment installation,” which must be authorized by Albemarle’s WTI and HSE.



The equipment maintenance must follow a maintenance program provided by the manufacturer associated with the critical components of the drilling and boring equipment. Structural verification of the equipment must be carried out daily by the driller in charge of the drilling bore, identifying the pressurized lines, safety mesh controls, shackles, winches, rod-handler, coupling and uncoupling keys, or according to the equipment checklist, considering the most critical elements of the equipment, before its use.

Any item that is worn out or outside the standard must be changed or replaced immediately.



The equipment must have a handling and control system distant from the lifting area of the bars, preventing external personnel from being exposed to falling objects. The handling or control system must have a system that prevents it from being activated unexpectedly.



Drilling equipment must have cabs with rollover protection (rops), except drilling machines that require a material fall protection system (fops). Along with this, they must have at least 3 emergency stop systems.

A safety system must be implemented to protect the cab from rock projections and compressed air hoses near it (e.g., grill, security film, and others). The equipment must have INTERLOCK for the automatic stopping of the bar when opening the grill that gives access to the drill rods.



It is forbidden to intervene or tamper with the equipment's safety devices.

Self-propelled equipment must have transversal and longitudinal inclinometers inside the cab, and be visible for the operator.

In addition, the maximum slope angle table of the equipment must follow the manufacturer's specifications, to ensure the stability of the equipment.

15



Inspection of minor tools



OBJECTIVES AND SCOPE

The objective of this procedure is to provide a detailed methodology for the review, inspection, and labeling of minor hand tools that will allow us to minimize process security breaches, losses, damages, and shutdowns, among others.

All portable tools should be properly inspected and maintained so that they are in a safe condition. This standard contains the minimum requirements for the inspection of tools and equipment, including:

- Types of inspection
- Frequency of inspections
- Competencies and training requirements
- Preservation of documents

This procedure excludes items used in offices which must comply with their specifications and be in good

condition, such as scissors and letter openers, among others.

This procedure applies to all Albemarle operations, contractors, and subcontractors, whether permanent, occasional, or temporary, as well as vendors or other similar.



DEFINITIONS



Portable tools: they are devices activated by an energy source (electric, pneumatic, or hydraulic) that generate a rotational or reciprocating movement in the tool associated with them.



Manual or hand-held tool: A generally metallic utensil made of steel, wood, fiber, plastic, or rubber, which is used to perform construction or repair tasks more appropriately, simply, and with the use of less energy.



All tools and equipment must be kept safe by proper maintenance, storage, handling, or operation.

Equipment and tools must be:

- Commercially available products designed and certified for their use and purpose.
- The equipment and tools must have the manufacturer's logos attached and intact, e.g., Manufacturer's manuals, operating instructions, safety warnings, load capacities, etc.
- All safety instructions, operating instructions, and documentation associated with an equipment or tool must be in Spanish.



Homemade tools may not be used unless they meet the following conditions:

- The tools available for purchase in the market are unsuitable or do not work for the specific job.
- They must be designed and tested according to best engineering practices.
- They must be approved by the management of the respective site.
- They must be inspected following the requirements mentioned in this procedure.
- They must have up-to-date preventive maintenance following the maintenance program.



Sites must determine what should be inspected and how functional testing should be performed.

End users must be instructed on specific requirements of the equipment or tool, if applicable.

In general, pre-use inspections do not need to be documented. The main exceptions are forklifts and similar equipment, electrical extensions, and cables that supply energy, which must have a documented inspection prior to use.

REGULAR INSPECTIONS



Tools and equipment (except hand tools) must be inspected regularly.

The inspection frequency may vary depending on local laws and regulations, but it must comply with the minimum inspection requirements.

- Qualifications of the people making the regular inspections.
- Documentation requirements, review formats.
- Article 139 of the Mining Safety Regulation establishes the obligation of every worker to verify at the beginning of their working day the proper functioning of the mechanical equipment and elements with which they must carry out their work.



TOOL DEFECTS

- If a tool or piece of equipment is found to be defective during any of the aforementioned inspections, it must be labeled and taken out of service immediately.
- Tools and equipment that can be repaired must be labeled and separated to ensure they are not used before repairs are made.
- Repaired tools and equipment must be tested and verified by a competent person before reuse.
- Tools and equipment that cannot be repaired must be destroyed and disposed of.
- Training is required before executing any of the activities related to the inspection and/or labeling of tools (initial training) or when there is a change in the applicable procedure or regulations.
- This training should be updated at least every three years or whenever the procedure is modified.
- The mining safety regulation establishes mandatory inspection of tools.

NFPA DIAMOND, IDENTIFICATION OF HAZARDOUS SUBSTANCES

HEALTH HAZARD

- 4 - DEADLY
- 3 - EXTREME DANGER
- 2 - HAZARDOUS
- 1 - SLIGHTLY HAZARDOUS
- 0 - NORMAL MATERIAL

OXIDANT – OXY
 ACID – ACID
 ALKALINE - ALK
 CORROSIVE – COR
 DO NOT USE WATER 
 RADIATION RISK 

SPECIAL HAZARD

FLAMMABILITY HAZARD

- 4 - EXTREMELY FLAMMABLE
- 3 - CAN IGNITE AT AMBIENT T°
- 2 - CAN IGNITE WHEN HEATED
MODERATELY
- 1 - IT MUST BE PREHEATED TO BURN
- 0 - NORMAL

- 4 - IT CAN EXPLODE
- 3 - IT CAN EXPLODE BY
SHOCK OR HEAT
- 2 - POSSIBILITY OF VIOLENT
CHEMICAL CHANGE
- 1 - UNSTABLE IF HEATED
- 0 - STABLE

INSTABILITY HAZARD



WASTE SEGREGATION, COLLECTION AND FINAL DISPOSAL



**Hazardous
Industrial
Waste**



**Non-hazardous
Industrial
Waste**



**Household
Waste**



Cardboard recycling:

Any type of cardboard that is not contaminated with hazardous substances.



Textile:

All types of textiles, whether PPE or replacement clothing that are not contaminated with hazardous substances.



Recycling of bottles and caps:

All kinds of crushed plastic bottles without lids and beverage lids.



Glass and/or earthenware:

All types of glass and/or earthenware that are not contaminated with hazardous substances.

**Paper recycling:**

White paper without a staple.

**Recycling of non-contaminated pipes:**

Place HDPE, stainless steel, or other material pipes that are not contaminated on a pallet.

**Scrap metal:**

For all types of metal debris, the material must be clean, without traces of contamination with substances or others.

**Waste oil recycling:**

Used oil or other oil placed in closed bins or drums.

**Recycling of film:**

Film from the packaging process or another activity.

**Wood recycling:**

Unused pallets or other type of uncontaminated wood.



COLOR CODING, SALAR AND LA NEGRA

Color coding for tool inspection

Bi-monthly Color Code					
January - February	March - April	May - June	July - August	September - October	November - December
Green	Yellow	Red	White	Blue	Black





DELIVERY RECORD

NAME _____

ID N° _____

DELIVERY DATE _____

COMPANY _____



SIGNATURE



Operate Safely –
With People At The Center