

Self-manage health  
and safety at work

STAG 9

Self-Training and Competency Assessment  
Guide

# Self-manage health and safety at work

## STAG 9

### Self-Training and Competency Assessment Guide

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I work here, at the Ingenio Adolfo Lopez Mateos.

This guide belongs to me and it is very important to me. If for some reason it gets lost and you find it, please return it to my work.

My name is:

---

I work in:

---

I work as:

---

I like to be called:

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# INTRODUCTION

This Self-Training and Competency Assessment Guide (STAG) on self-manage health and safety at work aims to contribute to make of the *Ingenio Adolfo Lopez Mateos* a safe workplace.

The STAG ensures that people working in the mill are able to eliminate, reduce or isolate the different types of risks in the mill and act in accordance with established standards. The generation and application of proposals to improve safety conditions at work, are the core expected results, along with a safe performance of trained people.

Identify and address risk generating sources is the basis of safe work . The ILO SafeWork Programme was useful to classify the different hazards, which were grouped into seven categories: 1) physical; 2) biological; 3) space conditions and dangerous work; 4) chemical; 5) mechanical; 6) electrical; 7) ergonomics. Each risk is addressed by asking how to eliminate, reduce or isolate it, depending on the situation of the generating source and the economic and technical possibilities of the mill. It was complemented with aspects of standards to be complied by people facing hazards.

This work endeavoured to cover the most significant risks in the mills, covering processing and handling areas of sugar. It is a guide that addresses the risks. The target audience is all the staff of the sugar mill.

Typical situations and examples of risks that are mentioned in the guide, come from the mills that have participated in its elaboration. *Ingenio President Lopez Mateos* was the main reference for this guide, while other mills provided complementary inputs. References are not exhaustive nor limiting to a specific area. They focus on critical and common aspects in the different areas. It is a transverse approach useful to all staff at the mill.

The guide begins with the standard of competence agreed by managers in charge of safety and health at work of the sugar mills, enriched by contributions from specialists on the field of the ILO and the Secretariat of Labour and Social Prevision of Mexico.

There are two sections in the guide: self-assessment and explanation. The self-assessment section begins with the expected results, measured by key indicators of the area, both in processing (cost, quality) and social aspects (accidents, absenteeism). Generic associated knowledge is addressed, referring to knowledge related to the set of defined performance. Base performances, what should be avoided and outstanding performances are presented as well. This is the core of self-evaluation. Improvement proposals that have arisen during the application of self-evaluation have been incorporated.

In the explanation section, you will find the same structure as in the self-assessment chapter with questions and exercises answered and, in some cases, extended in content. This allows to counteract the responses obtained in the self-evaluation and the expected and indicated ones by the standard.

# WELCOME



Hello, let me introduce myself, I am Benigno, facilitator of the mill and I have been assigned the pleasant task of helping you in your training. To achieve this, the Guide “Self-training and Competency Assessment (STAG)” will be very helpful. It is a very important part of the Master Plan of Comprehensive Modernization of the Sugar Industry in the labor aspect, which was agreed by employers’ and workers’ representatives.



Hello, I am Miguel, worker of this Mill, I would like to know who prepared it?

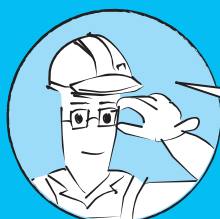
It was prepared by experts on the subject, belonging to one of the Mexican sugar mills participating in the project, with the support of national and international organizations.



I am Flor, and work in this mill, mmm ... this STAG, What’s the use of it?



It helps you to develop the technical and behavioral skills necessary to perform your duties properly, to improve productivity and quality of life in the mill.



We ask you to read and work this Guide, according to the instructions given by your facilitator. When you are sure you can demonstrate what is asked in the Evaluation chapter, ask your facilitator to formalize your evaluation.

This STAG was prepared with the support of the International Labour Organization (ILO) through its Country Office to Mexico and Cuba, Safe Work Program (SafeWork) and the Interamerican Centre for Knowledge Development in Vocational Training (ILO/CINTERFOR). The National Chamber of Sugar and Alcohol Industries (CNIAA), the Union of Sugar and Allied Industry in Mexico (STIASRM) and the National Council for Standardization and Certification of Labor Competencies (CONOCER) contributed as well.





These are the icons you'll find in STAG, below I explain its meaning and usefulness.



**Self-assessment.** Refers to the part of the STAG where you evaluate yourself to identify how much you know or remember and what you do at work.



**Explanation.** This is the section where you compare your answers to the self-evaluation. This work is collective: you compare each answer in group.



**Improvement proposal.** You should make a suggestion to improve the work you perform and / or your work environment. A proposal corrects or improves a situation that may jeopardize the process, the product or the person or increases the performance of a component. The person who makes the proposal, is responsible for following-up, monitoring and reporting the result.

# WHERE ARE YOU?



A COMPETITIVE AND SOCIALLY RESPONSIBLE MILL		
KEY COMPETENCE	KEY SUB-COMPETENCE	GUIDE
Generate value to the stakeholders of the organisation	Generate economic value to stakeholders	1
	Generate social value to stakeholders	2
Work with efficiency and quality	Plan the work	3
	Understand results of measurements	4
	Work and control with efficiency and quality	5
	Apply self-maintenance	6
Work with standards of quality and food safety standards	Work with quality systems	7
	Work with food-safety standards	8
Prevent health and safety risks in work and contribute to environmental sustainability	Self-manage health and safety at work	9
	Contribute to environmental preservation	10
Team work	Collaborate with team work	11
	Participate in continuous improvement teams	12
Contribute to welfare and social commitment	Practice comprehensive health	13
	Contribute to quality of life at work and personal life	14



# COMPETENCY STANDARD



**You are competent when:**

**You achieve the following base performance:**

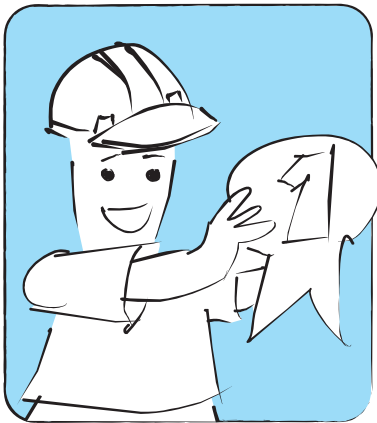
- Identify the risk factors and possible consequences.
- Identify the risk generating sources in the different departments of the Mill, according to the working process of sugarcane industrialization.
- Eliminate, control or minimize the effects of risk factors in the work area.
- Perform activities according to safety, health and emergency standards and procedures established in the mill.



**You avoid:**

- Start a job without first having received the appropriate equipment and tools, personal protection equipment, health and safety instructions as well as indications on how to perform the work assigned to you.
- Work long hours without breaks.
- Work without being updated in safety standards and procedures.

- Modify the personal protection equipment and use it incorrectly.
- Carry out activities in risk situations with anger, illness, haste, fatigue or stress.
- Ignore safety and health measures.
- Use personal accessories (chains, watches, rings, earrings) and removable objects.
- Use fire-fighting equipment when not necessary (for other tasks).
- Eat little and badly, and not drinking enough water during the day.
- Failure to follow medical recommendations.



### You get the following outstanding performance:

- Participate in the programs of the Joint Committee on safety and health at work, the fire-fighting, evacuation, first aid brigades and civil protection programs.
- Support colleagues who make mistakes and expose themselves to unnecessary risks at work.
- You attend and participate permanently in the training programs on safety and health at work.
- You attend regular medical review.
- You suggest actions to improve safety and health and help in their compliance.

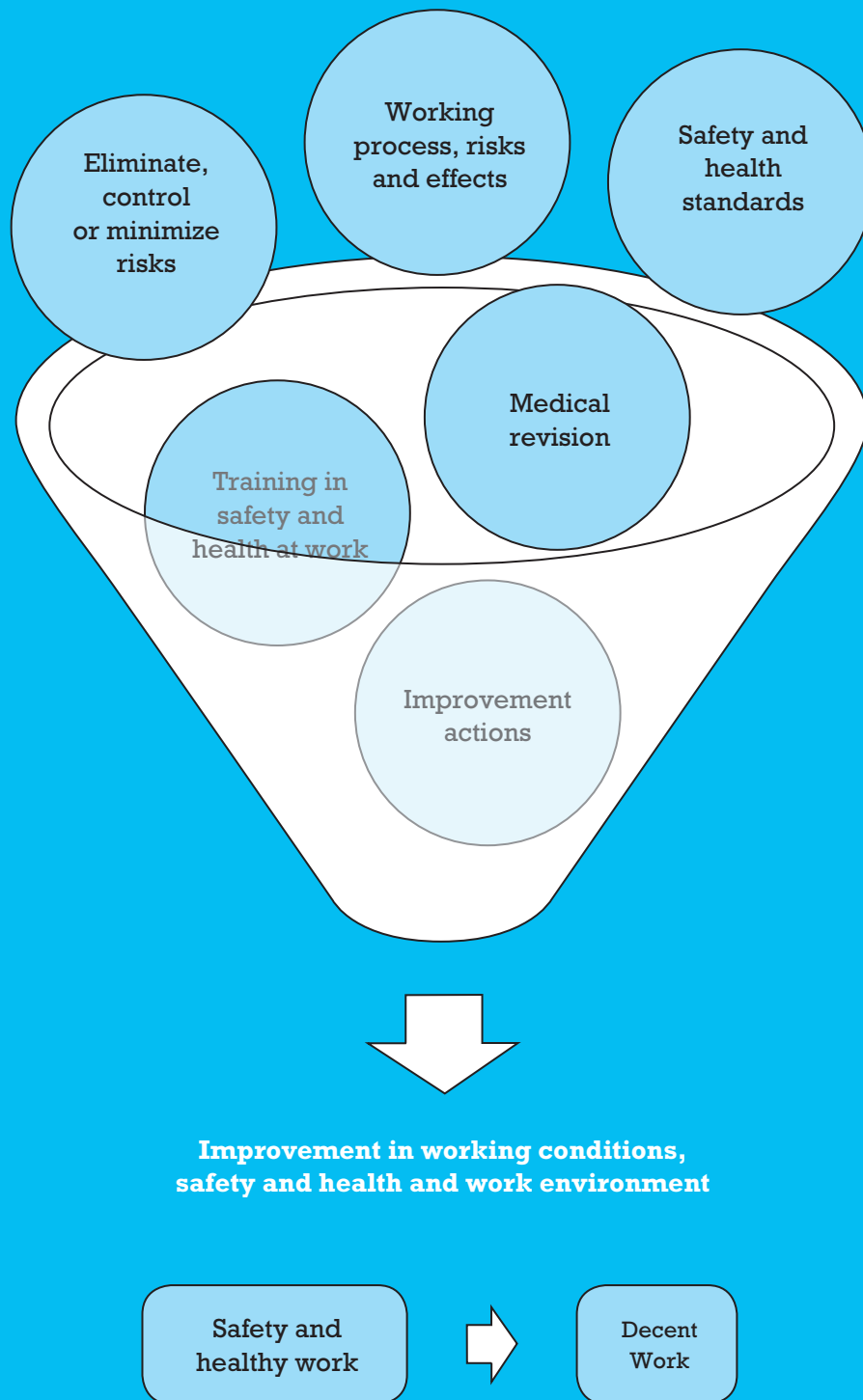


### You know:

- Health at work.
- Working conditions and their impact.
- Risks, dangers and their classification.
- Occupational accident, classification and causes.
- The occupational disease and its causal factors.
- Work process and risk generating sources.
- Risk factors and possible consequences.
- Preventive and protective measures (visualization of risks, signs, PPE).



# MAP OF CONTENT







### STAG sequence

As from the daily activities you perform, let us identify the risks that surround you and we will qualify them. Then we will reflect upon them, on how to take them into account.

### RISK FACTORS

Physical risk

FR1

Chemical risk

FR2

Biological risk

FR3

Safety risk

FR4

Mechanical risk

FR5

Electrical risk

FR6

Ergonomic risk

FR7

Psycho-social risk

FR8

Sanitary risk

FR9

Ecological risk

FR10

### PREVENT RISK

**1**

Identify risk factors, generating sources and their possible consequences for health and integrity.

**2**

Eliminate risk, control it at the source, minimize the risk by designing safe work systems.

**3**

Perform the tasks according to safety standards and participate in their implementation, using personal protection equipment.

# 1. SELF-ASSESSMENT



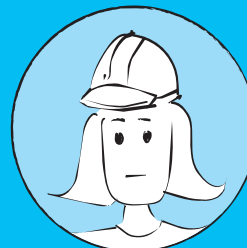
Before starting your  
Self-assessment  
let me tell you  
how to use this Guide.

We know you are an experienced  
person and you already know much of  
what this Guide mentions.  
Therefore, we want you to answer  
these questions and when you think  
you do not know the answer you go to  
the same subject in the  
Explanation chapter.

Do not worry. To help you in  
understanding this Guide you can go  
to the facilitator at the enterprise.  
He is a person like me to whom you  
may ask to explain  
and clarify your doubts.

Ok. Generally, during my  
training things are explained  
to me and then I am evaluated,  
and here you begin  
with the most difficult part,  
evaluate ourselves

And if in that part I do  
not understand, what  
can I do?



## 1.1. Expected Results



The mill relies on you and your learning.  
Your progress will be reflected in indicators  
shown below.

The benefit is yours, of the mill and of the  
Community as well. Let's do it together!

**GUIDE AND PRACTICE + IMPROVEMENT PROPOSALS = EXPECTED RESULTS**



Complement the results with some present figures of the mill where you work at and those that you consider should be the expected ones for 2012.






INDICATOR	RESULT 2011	RESULT 2012	DESCRIPTION OF SITUATION
Number of accidents			
Days of disability due to risks of work			
Number of risks Identified in your area of work			
Number of prevention and protection measures applied in your area of work			
Auditing the accomplishment of safety measures			
Health prevention measures for the workers			

## 1.2. Importance of self-manage safety and health at work



Self-manage safety and health is important.  
How do you benefit from it?

Mark with a ✓.

 <p>In my physical, mental and social care.</p> <input type="checkbox"/>	 <p>In preventing negative consequences for my health because of poor working conditions.</p> <input type="checkbox"/>
 <p>In the adaptation of my work environment to my physical and mental needs.</p> <input type="checkbox"/>	 <p>In my protection in risks at work.</p> <input type="checkbox"/>
 <p>All the already mentioned</p> <input type="checkbox"/>	



What is the importance of self-manage safety and health at work in relation to the goals of the mill?

Complete the sentence with the words shown below.

- Absenteeism
- Frequency
- Working conditions
- Welfare
- Productivity
- Health and safety

With the improvement of \_\_\_\_\_ through the application \_\_\_\_\_ measures the severity of \_\_\_\_\_ and occupational diseases and work injuries is reduced. It prevents \_\_\_\_\_ loss due to occupational diseases and avoidable disabilities, it reduces the \_\_\_\_\_, \_\_\_\_\_ is improved and morale of workers.

### 1.2.1. Workers' participation



What is necessary to install a safety and health management system at work?

In the right column please mark with a X what is stated is a right or duty.

Be informed and trained on possible risks and preventive measures.	
Comply with the application of safety and health measures and cooperate with the employer to comply with them.	
Inform your supervisor on a serious and imminent danger and reasons to leave work.	
Be consulted and participate in the application of safety and health measures.	
Protect your safety and health as well as of your colleagues.	
Select your representatives at the Joint Committees of safety and health.	
Get out from a serious and imminent danger and not being punished for that.	



What do you think of the following statement?

Write a T if you think it is true or F if you think it is false.

A fundamental principle in risk assessment and in the implementation of preventive measures is the cooperation between the employer, workers and their representatives.

☐

## 1.3. Associate knowledge

### 1.3.1. Health at work



Using your own words, what do you think is the objective of health at work.

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In columns A and B different levels for assessing risks at work and the application of preventive measures are shown.

Surround with a circle the correct option (column A or column B).

OPTION A
1. Eliminate the risk
2. Control risk in the source
3. Minimize the risk by designing safe work systems
4. Give PPE

OPTION B
1. Give PPE
2. Minimize the risk by designing safe work systems
3. Eliminate the risk
4. Control risk in the source



Mark with a ✓ the prevention and protection measures that we should implement in the mills.

Protective measures against physical, chemical and biological agents	
Protective environmental measures	
Design, construction and maintenance of facilities	
Comfortable facilities and other social services	
First aid and emergency actions	
Information, training and consultation to workers	
All the abovementioned	

### 1.3.2. Work conditions



With your words, please tell us what work conditions are.

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What do you think of the following statement?

Write a T if you think it is true, or a F if you think it is false.

Work helps us to meet many of our needs; however, depending on the conditions in which it is performed it may be a risk to our health.

☐



Mark with a ✓ those factors involved in working conditions.

The health risk of physical, chemical and biological agents present in the working environment	
The general conditions of the infrastructure of the mill	
The working procedures	
The duration of the working day and forms of remuneration	
The organization of work	
The pace of work during the harvest season	
Social services and welfare	
All the abovementioned	

What consequences have poor working conditions on workers' health and in productivity of the mill?

Mark with a ✓.

- |  |   |
|--|---|
| <input type="checkbox"/> Occupational injuries.  | <input type="checkbox"/> Occupational diseases. |
| <input type="checkbox"/> Poor quality.           | <input type="checkbox"/> Economic losses.       |
| <input type="checkbox"/> All the abovementioned. |   |



### 1.3.3. Risk, hazard and their classification



Using the words below, please complete the concept of risk and danger.

- Danger
- Probability
- Hazard
- Worker
- Dangerous Agent

Risk is the \_\_\_\_\_ that, due to exposure to a \_\_\_\_\_ at work, a \_\_\_\_\_ suffers a particular \_\_\_\_\_. While the \_\_\_\_\_ is a situation inherent with capacity to cause injuries or damages to health, is anything that may cause harm.



Circle the different risks in the following drawing.





Write the letter that corresponds to each risk

Risks associated to sanitary conditions, latrines, kitchens, bathrooms, drinking water, rest areas and others conditions that can cause infectious diseases		A. Physical risks
Risks that can cause muscle-skeletal disorders by poor design of work stations and equipment, dynamic and static physical posture		B. Chemical risks
Hazards causes by earthquakes, floods, fires, hurricanes that occur in the vicinity of the mill		C. Biological risks
Risks in machinery, panels, CCM, substation and facilities than can release electrical energy through the body of the worker		D. Security risks
Risks in machinery, dynamic equipment and tool, that due to its function can cause entrapment, bruises, amputations cuts		E. Mechanical risks
Risks caused by the intense work pace, the length of the working day, very hierarchical relationships, poor communication, monotonous work, form of remuneration, supervision levels		F. Electrical risks
Infections, toxic or allergic causes by vermin (rodents), insect bites, viruses, bacteria		G. Ergonomic risks
Natural or synthetic substance such as dust, liquid, smoke, gas, vapor, mist and dew, which can contaminate the environment and produce toxic irritant effects, explosives and flammable		H. Psychological risks
Aggressive agent which occurs in the environment of job. Noise, vibration, heat, cold, light, ventilation, abnormal pressures, radiation		I. Health risks
Risks associated with facilities conditions (floors, stairs, corridors) and activities carried out under conditions and special sites, as working in heights or confined spaces		J. Ecological risks

### 1.3.4. Occupational accident and its causes



Using your own words, please write what an occupational accident is.

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Look at the following photographs and indicate possible causes that may generate an accident.



1



2



3



4



5



6

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Please tell us why do you think the person in the drawing fell down.



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Using the words shown below, complete the following sentences.

• Disabling

• Not disabling

• Incident

The \_\_\_\_\_ is a dangerous occurrence that did not affect a worker.

The \_\_\_\_\_ accidents needs basic medical attention and then the worker can return to his work.

Functions are disrupted in the company when a \_\_\_\_\_ accident occurs and the worker may be injured for life, partially or fully.





What are the procedures that you consider most important in case of an accident?

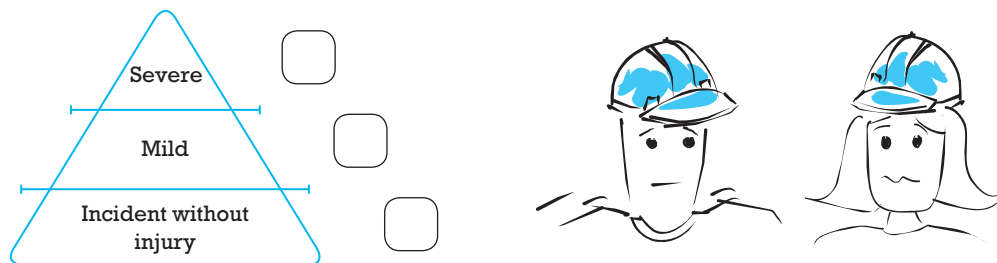
Mark with a ✓.

You immediately report the accident to your supervisor	
You give detailed information of what happened to the person in charge	
You give recommendations to help prevent accidents	
You comply with the corrective and preventive actions	
You reintegrate to work when the supervisor tells you	
You comply with all medical recommendations	



Which is the relationship?

Put the numbers in the pyramid according to severity of accident 100, 1, 10.



What does the pyramid mean? Write briefly.

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Give an example of an incident without injury in your work area:

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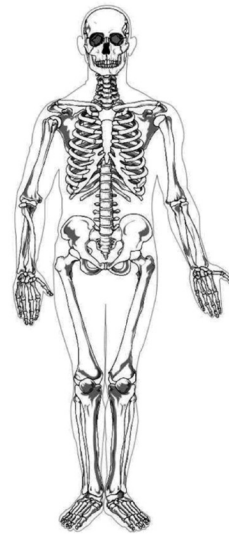
In which part of the body the most common injury resulting from accidents in the mills are located?

In drawing A, with a circle enclose the location of the external damage and its type (cut, burn, blow).

In drawing B, with a circle enclose the location of the internal and skeletal most common damage.



A



B

### 1.3.5. Occupational disease



What are occupational diseases?

Underling the right answer(s).

- Diseases that are caused by occupational actions.
- Highly specialized diseases.
- Slow and gradual deterioration in health due to exposure to harmful conditions.



Choose the correct word and complete the sentence below.

- Contaminants
- Determinating
- Distractors

A disease is produced when some causal agents, called \_\_\_\_\_; exist; other contributing factors determine the severity of the harm.



Mark with a ✓ the contributing factors you consider most important in your work environment. Complete with examples each factor and discuss them with your colleagues.

IMPORTANT	CONTRIBUTING FACTORS	EXAMPLE
	The type of contaminant	
	Physical and chemical properties	
	The exposure time to contaminant (frequency, duration)	
	The amount and concentration of contaminant	
	The simultaneous presence of several contaminants	
	The individual characteristics of exposed worker	





What are the harms (occupational diseases and accidents) that occur more often in the mills?

Underline the clauses that you consider the most important.

Comment the causes of the damage that you pointed out as most important.

a) occupational deafness, fatigue hearing.

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b) Allergies, itching or lesions on the skin.

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c) Fungi in the skin.

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d) Infectious diseases.

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e) Dehydration, physical exhaustion, body temperature.

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f) Poisoning, headache, vomiting, dizziness and body aches.

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g) Fractures, dislocation, sprain and shocks.

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h) Injuries, entrapment and amputations.

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i) Electrical shock and burns.

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j) Stress, anxiety, irritability, fatigue.

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k) Lacerations, back injuries, muscle aches.

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l) Other damage (foreign body in eyes).

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Which are the three posts that suffer most damage (accidents or diseases) in the mills?

Choose three of the list. Mark each one with a ✓.

Batey and machete workers	
Drivers of trucks and tractors	
Thread turners or crane operators	
Operators of feeder tables and auxiliary equipment operators as cajoling, loaders or front loaders	
Firemen and ashworkes	
Clarifier operators, lime firefighters and operators of filter rum	
Operators of sugar hoppers, weighers, packaging and sewer workers	
Motor equipment dockers, cranes and hoists	
Turners, electricians, mechanics and instrumentalists	
Storekeepers and load workers	
Others	

### 1.3.6. Work process and risk generating sources



Read the following statements and write an example for each.

When work processes are well designed and instructions, procedures and standards are complied with, the possibility of an accident is minimized.

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All work processes can cause an accident.

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If in a process technical failures exist and are not taken into account it is likely that an accident occurs sooner or later.

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The source of risk may also be organizational, lack of planning is the cause of many occupational accidents.

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Competencies (skills, knowledge, attitudes, values) or lack of them are vital part of the performance of work processes, so it is very important to train human resources in accordance with the processes, this also prevents accidents.

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Now draw an example for each of the following statements.

Space and work environment are a gear over the labor process, if they are in poor conditions, an accident will inevitably occur without the protection or appropriate prevention.

When activities are not performed with the correct physical posture, according to work process, they may cause damage to the worker.

### 1.3.7. Risk factors and possible consequences



Complete the following table with information from the department where you work.

	RISK FACTOR	GENERATING SOURCE	POTENTIAL IMPACT
Physical	Noise and vibration		
	Moisture		
	Heat and radiation		
	Lighting		
Chemical	Dusts, liquids, fumes, vapors, mists, dew		
Biological	Infection processes, toxic or allergies, caused by rodents, insects, plants, viruses, bacteria		
Safety	Conditions of facilities of the mill (floors, stairs, corridors) and activities carried out under special conditions and locations (work in heights, confined spaces)		
Mechanical	Equipment, machinery, engines, tools		

	RISK FACTOR	GENERATING SOURCE	POTENTIAL IMPACT
Electrical	Derived from engines, panels, CCM, substations, electrical installations and powered machinery		
Sanitary	Conditions of sanitary services, latrines, bathrooms, dining rooms, bedrooms, non-drinking water		
Ecological	Earthquakes, landslides, floods, storms, hurricanes		
Ergonomic	Job design and equipment, static and dynamic physical load		
Psychosocial	Derived from organization and content of work (rate of intense labor, duration of working day, hierarchical relationships, poor communication, monotonous work, remuneration and supervision levels)		



### 1.3.8. Preventive and protective measures



Complete the following table with information from the department where you work.

RISK FACTOR		PREVENTIVE AND PROTECTIVE MEASURES
Physical	Noise and vibration	
	Moisture	
	Heat and radiation	
	Lighting	
Chemical	Dust, liquids, fumes, vapors, mist	
Biological	Infection processes, toxic or allergy caused by viruses, bacteria, rodents, insects, plants	
Safety	Facility conditions of the mill (floor, stairs, corridors) and activities carried out under conditions and special locations (working at heights, confined spaces)	
Mechanical	Equipment, machinery, engines, tools	

### 1.3.8.1. Visualisation of risks



When entering your work place identify the risks that you are exposed.

Performing the following exercise may help you.

1. Look up: search for items that can cause an accident. Draw them and write their name.
2. Now look at all that is at level with your view (things that can hit you, cut you, burn, etc.). Draw them and write their name.
3. Finally, watch what is at ground level (what interferes on the floor, is broken, slippery, can cause electrical shock, etc.).. Draw them and write their name.



### 1.3.8.2. Signalling



Identify safety signs at your work.

Complete the meaning of each safety color using the corresponding words.

• Low risk

• Fluid Combat fire

• Hazardous fluids

RED

Fluid identification for \_\_\_\_\_  
pipe driven.

YELLOW

Identifying of \_\_\_\_\_  
pipe driven

GREEN

Identifying of \_\_\_\_\_  
pipe driven



Put the missing words in the captions. The letter are mixed up but you can easily find the words.

• vexpleosi

• xicot

• rrocative

• ivtereca

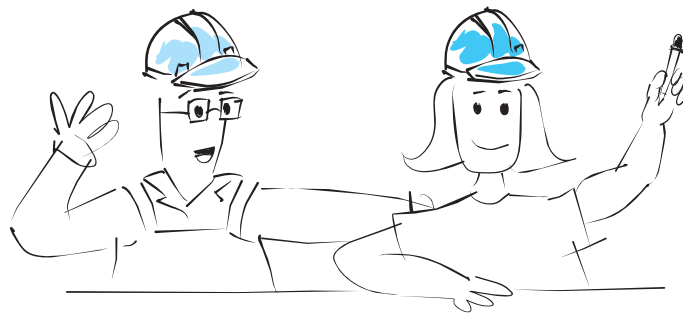
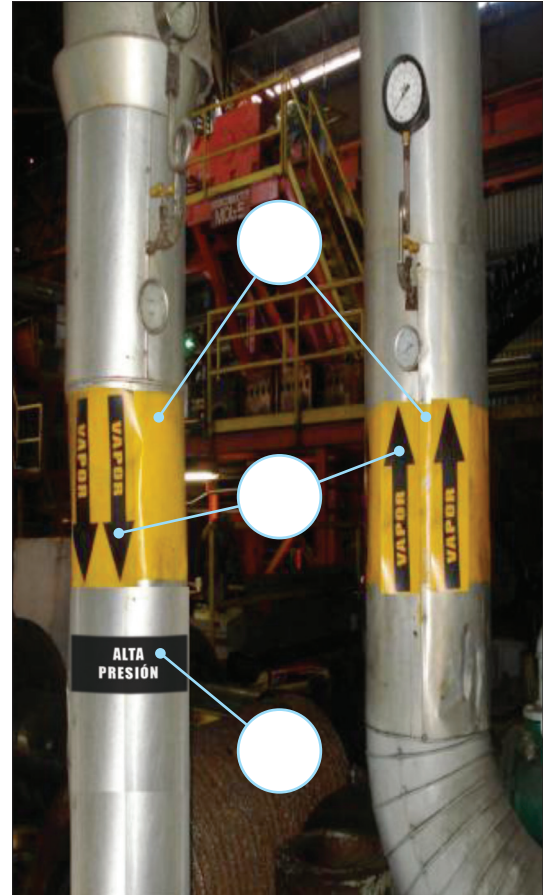
LEGENDS FOR HAZARDOUS FLUIDS	
Flammable	
	Biohazard
	High temperature
Irritant	Low temperature
	High pressure



With the help of a person from the area, see if these pipes meet fluid signs rules, and place the corresponding letter. Remember the color code.

The identification of the fluids in the pipe is made up of:

- A. A safety color.
- B. A contrasting color. Additional information on the nature, the risk of the fluid or the information process (eg. legend).
- C. An arrow indicates the direction of the fluid. They should be visible from any point in the area or areas where the piping system is, and in the proximity of valves.



### 1.3.8.3. Personal protective equipment (PPE)



Now that you have visualized the risks in the working areas, you will understand the need to take preventive and protective measures.

We protect ourselves once we've exhausted the prevention measures and eliminated the potential risks.

Draw yourself with the different levels of PPE.

Relate them to the boxes to the left.

Basic PPE to get  
in the mill

Necessary PPE to perform  
your daily activities

Special PPE for  
high risk activities



## 1.4. Basic performance

### 1.4.1. Physical risk

#### A.A. You identify the risk factors and their consequences



What are the effects of physical agents?

Link each physical agent with its respective effect on health.

PHYSICAL AGENT
Heat
Lack of ventilation
Cold
Noise
Lighting
Vibrations
UV Radiation
Moisture and steam

EFFECTS
Occupational deafness, decreased hearing and other hearing problems (headache, irritability, fatigue)
Dizziness, headache, tachycardia, muscular fatigue
Heat stroke, cancer, injuries and burns on the skin
Physical exhaustion, body temperature rise, dehydration, malaise
Decrease in body temperature, joints pain, dizziness, irritation in respiratory tract, fatigue
Visual acuity, eye strain, headache, fatigue dizziness
More easily development of fungus, viruses and bacteria. Skin and respiratory diseases.
Decrease of oxygen, dizziness, blurred vision, fainting



Answer the following questions indicating with a ✓ your answer.

	YES	NO
Is temperature in your work area warmer than outside?		
Have you dehydrated from heat and lack of ventilation in your work area?		
During the cold season do you suffer from sudden changes in temperature during work or when you finish it?		
Are workers in very noisy areas rotated in order to prevent being exposed to noise many hours?		
Are earmuffs or earplugs wore when the noise level reaches 85-90 dB or above?		
Is there enough lighting in your work?		
At the end of the day do you feel your eyes tired?		
Does the vibration of the equipment in your area cause you fatigue?		
Do you have fungus problems in your skin?		

Now, from the nine points above, underline the one you consider most easily to be solved and discuss it with your peers.





How much harm generate the following risks?

Mark with a ✓.

TYPE OF RISK	DEGREE OF HARM			
	1 Annoying	2 Very Annoying	3 Irreversible damage	4 Dangerous, may cause death
Heat				
Lack of ventilation				
Cold				
Noise				
Lighting				
Vibrations				
Steam and moisture				
Radiations				

## B. You eliminate, control or minimize risks in the workplace



How do you eliminate, control or minimize the risk?

Next to each preventive measure, write what is the risk that is eliminated, controlled or minimized.

- Lubricate the staves of the main driver: \_\_\_\_\_.
- Locate stations ORS: \_\_\_\_\_.
- Use electric forklifts in the warehouse of sugar: \_\_\_\_\_.
- Provide preventive maintenance to equipment and machinery in mills and development: \_\_\_\_\_.










- Cause cross ventilation, natural or with extractors, to renew the air in the workspace: \_\_\_\_\_.
- Use waterproof in Batey: \_\_\_\_\_.
- Have cool or air conditioned areas for meal times and breaks: \_\_\_\_\_.
- Use long-sleeved shirt and pants: \_\_\_\_\_.
- Regular cleaning of lamps: \_\_\_\_\_.

### C. You perform activities in accordance with safety standards



What preventive actions can you take to work more safely?

Link the personal protective equipment to the risk it protects you from, placing the corresponding letter in the box next to the image.

A. Cold		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
B. Lack of ventilation						
C. Noise						
D. Heat and radiation		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
E. Lighting						
F. Vibration						
G. Steam and moisture		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>



**Improvement proposal.** Regarding the physical risks, what improvement can be applied in your workplace?

Improvement proposal	
Worker that suggested it	
Supervisor	
Responsible for implementation	
Responsible for monitoring	
Implementation date of proposal	

## 1.4.2. Biological risk

### A. Identifying risk factors and their consequences



Which effect has each risk factor?

Link with a line each risk factor to its effect or effects.

FACTOR
Dust of the earth
Dusts cane
Bagasse
Ash
Insects
Rodents
Virus/bacteria

EFFECT
Respiratory disorders
Eye disorders
Explosion, fire hazard
Stings
Infectious diseases
Zoonoses (diseases transmitted by animals)
Bagassosis





Which are the generating sources of risk exposure?

Match the columns with a line.

AGENT
Sugar-cane powder
Dust of the ground
Bagasse
Ash
Insects
Rodents
Viruses/Bacteria

Present in the rod when it goes to the mill
Bagasse particles suspended in the air
Burners and furnaces
Fine dust caused by packaging and transportation of sugar
Powder and fine dust that rises from Batey
Infectious agents in the environment or transmitted by animals

## B. Eliminate, control and minimize risks in the workplace



How do you eliminate, control or minimize the risk?

Mark with a ✓ those actions where workers can participate.

Prevent the entry of very dirty cane, wash cane	
Control pests, trapping	
Delineate the bagasse driver to avoid falling down	
Isolate the bagasse driver	
Provide attention to any skin injury	
Install chimney sweeps or cyclones for smoke and ash	
Ventilate work areas	
Limit exposure to risk when burning oit or working in welding	

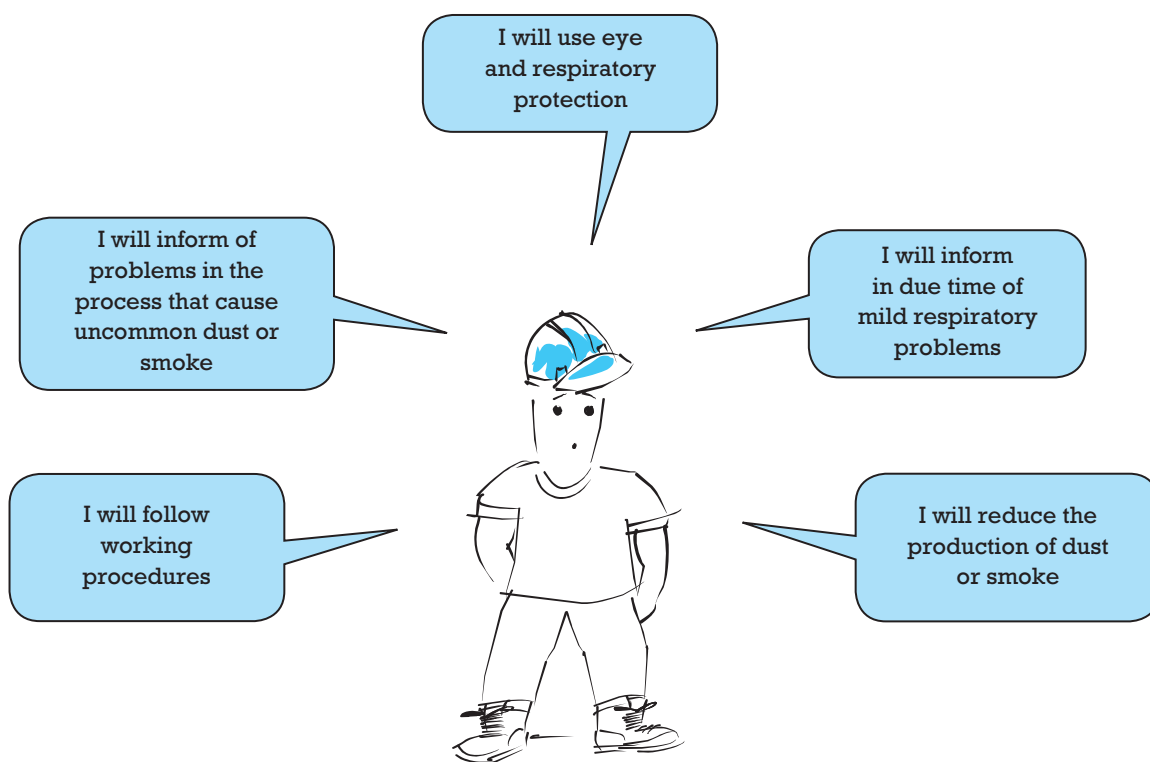
Welding of individual parts in open spaces	
Personal hygiene (daily bath, correct procedure for washing hands and sneezing)	
Correct leaks in sugar packaging process	
Periodic cleaning of work areas	
Install extractors by type of packing	
Avoid shoveling of lime in silos without specifying the area and without special PPE	
Replace the use of agents that produce dust or toxic fumes for products non-aggressive for work and environment	

### C. You perform the tasks according with safety standards



What preventive behaviors will you adopt henceforth to eliminate, control or minimize the risks of fine dust?

Circle the appropriate options.





**Improvement proposal.** Concerning biological risks, what improvement can be applied in your work area?

Improvement proposal	
Worker that suggested it	
Supervisor	
Responsible for implementation	
Responsible for monitoring	
Implementation date of proposal	

### 1.4.3. Safety Risk

#### 1.4.3.1. Conditions of spaces

##### A. Identify the risk factors and their consequences



What are the characteristics of the risks due to poor condition of locations?

Write the letter of the space corresponding to each description of the factor of risk.

A. Stairs	They link you from one space to another. It is very common to find dairy metal tools and even temporary equipment cluttering the free passage and causing accidents if an emergency arises.	
B. Floors	They link you from one level to another. If steps do not have appropriate dimension you could stumble and have an accident.	

C. Corridors	Corridors mark a high space and protect you from falling down. If they do not have the sufficient height or are poorly set they are very risky.	
D. Railings	It is the area where you step and where the teams are. If damaged or slippery they are the most common cause of accidents at the mill.	



¿What is the degree of harm you can suffer depending on the type of risk?

Place the letter or letters that apply in each case.

A) Bumps and bruises.

B) Dislocations in elbows, knees, hands or feet.

C) Arm or leg fracture, waist or hip damage.

D) Blows to the head or spine that can cause death.



Slide in wet, oily, concrete floor, with something.



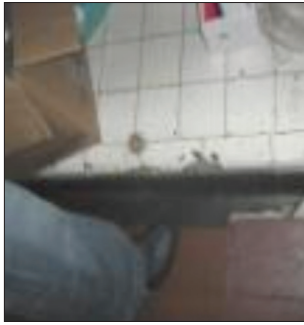
Tripping carrying tools.



Fall to the next level by railing or scaffolding in poor condition.



Struck by an object.



Fall into drain holes or gutters not covered.



Fall from stairs in bad condition.



How do you rate the harm it causes?

Mark your answer with a ✓.

TYPE OF RISK	EXTENT OF HARM			
	Shock and bruises for tripping or neglect	Dislocations in elbows, knees, hands or feet	Fracture in arms or legs, damage in waist or hip	Blows in head or spine, can cause death
Slip over wet or oily, concrete floor				
Stepping bad for defects on floors				
Falling into drain holes or gutter not covered				
Stumbling carrying tools				
Falling more than 1.5 m on metal step in poor condition				
Fall a level below (over 2.5m) due to rail in poor condition				



Generating sources.

Why does it represent a risk for you?

Underline the option or options that you consider correct.

Stairs



- A. Unsuitable dimensions.
- B. Unsafe materials or design.
- C. Incomplete or damaged.

Hall



- A. Unsuitable dimensions.
- B. Unsafe materials or design.
- C. Incomplete or damaged.

Floor



- A. Unsuitable dimensions.
- B. Unsafe materials or design.
- C. Incomplete or damaged

Railing



- A. Unsuitable dimensions.
- B. Unsafe materials or design.
- C. Incomplete or damaged.



In what areas is it present?

- Are there any unsafe ladder in your mill? In what area? \_\_\_\_\_.
- Is there a dangerous corridor in your mill? In what area? \_\_\_\_\_.
- Are there any hazardous flooring in your mill? In what area? \_\_\_\_\_.
- Are there any dangerous railing in your mill? In what area? \_\_\_\_\_.

## B. Eliminate, control or minimize risks in the workplace



How do you eliminate, control or minimize the risk?

Write some proposals, some simple actions that can help in the following cases.

Eliminate the risk of a floor with oil:

---

---



Control the risk of exposure to noise:

---

---



Minimize the risk of a ladder with obstructions and exposed to traffic fumes and other hazards:

---

---



## C. You perform activities in accordance with safety standards



How can you improve working conditions in your workspace?

Underline the option or options you consider.

- It's not my turn, the one responsible should do it.
- Check my space and compare it with building and safety standards with my supervisor and other appropriate personnel.
- Improving those risky things that I can.
- Recognize the danger of space I can not change immediately and take precautions to avoid accidents.
- Work and walk around the space according to the rules of the mill.



What behaviors can you take to work more safely?

In each sentence mark with a T if you think that it is true and F if you consider it is false.

If I wear the PPE, no matter if the floor or the stairs are in poor state, I'm protected	
If the stairs, floors and corridors are according to standard, PPE is only accessory,	
I will use it to feel more confident	
If I avoid running or distracted I will have less risk of accidents in present spaces,	
although I know that they could be improved	
If I keep clean my work area I contribute to have safe spaces	
If I see something in my area of work is bad, I must report it in order to be repaired	
If someone cut a railing or ladder so they can move the equipment, it is his responsibility to warn or to repair it	





**Improvement proposal.** Regarding the safety hazards, according to the conditions of spaces, which improvement can be applied in your area of work?

Improvement proposal	
Worker that suggested it	
Supervisor	
Responsible for implementation	
Responsible for monitoring	
Implementation date of proposal	

#### 1.4.3.2. Dangerous works

##### A. You identify the risk factors and their consequences



What are the effects of each risk factor?

Link with a line the effects with the type of work.

Vertigo	Working at height	Claustrophobia
Choking		Poisoning
Cardiac and pulmonary fatigue		Numbness
Shock and fractures due to fall	Confined space work	Decreased hearing



How do you rate the harm caused?

Mark with a ✓ each statement.

PERFORM WITHOUT SAFETY	POSSIBLE HARM			
	Very low, not worth going to infirmary	Minor injuries, not disabling	Disabling injuries	Permanent inability or death
Boiler welding in heights				
Structures repair works				
Relamping or ballasts				
Painting in heights				
Jobs in cans				
Jobs in boilers				
Jobs in tanks, wells and treatment pits				
Paint or handling of chemicals indoor				





## Generating sources.

Where does the hazard generate?

Mark with a F if false or T if true, if the work in the following locations is of high risk.

- ☐ Work repair inside the tanks.
- ☐ Repairs one meter above ground level.
- ☐ External welding of storage tanks.
- ☐ The cleanup work at the last level of the factory.
- ☐ The scaling of tanks.
- ☐ Cleaning and disinfection of tanks and cisterns.
- ☐ The management of chemicals in enclosed areas.
- ☐ Painting the exterior of the plant above 2 meters.
- ☐ Any work that requires the attachment of scaffolding, ladders of more than 2 meters, baskets or holding with harness.
- ☐ Changing a lamp in post.
- ☐ Enamel paint, use thinner or turpentine in a confined space.
- ☐ Changing ballasts or tubes in factory area.
- ☐ The hazardous waste management in confined spaces.
- ☐ Welding in confined spaces where fine powders (sugar or bagasse) may be present

## B. You eliminate, control or minimize risks in the workplace



How do you eliminate, control or minimize the risks in work at height?

With a ✓ choose the actions you would take for this kind of work.

- ☐ Check the good condition of ladders, scaffolding and safety equipment for working at heights.
- ☐ Follow operating procedures and standards
- ☐ Place protective nets or baskets.
- ☐ Be informed of the safety procedures for working at heights.
- ☐ Have the authorization and supervision to perform the work.



How do you eliminate, control or minimize the risks in work confined spaces?

With a ✓ choose the actions you would take for this kind of work.

- ☐ Avoid the use of toxic products.
- ☐ Replace them for non-aggressive biodegradable products.
- ☐ Be informed of safety procedures for working in confined spaces
- ☐ Use auxiliary self-contained breathing equipment.
- ☐ Take breaks and rest breathing.
- ☐ Have the authorization and supervision to perform the work.

## C. You perform activities in accordance with safety standards



What preventive actions can you take to work more safely when you change the copper fuses in bins?

Underline what you do.

- Use forced ventilation.
- Remove the helmet to facilitate the work.
- Wait until it reaches a temperature of 38 ° C.
- Ensure that staff of bins is aware of the work to be performed.
- Hurry up in order to not be so long with the equipment.
- Place alert cards in controls and supply or discharge valves.
- Do not work alone.
- Maintain environment conditions every 15 minutes.
- Do not use extension cord.





What preventive actions can you take to work more safely when you clean pipes at heights?

Choose with a ✓ what you do.

Use harness and PPE	
You tie yourself	
Use basket conveyor in areas where crane reaches	
Have the assistance of a colleague who gives you inputs	
Take up your food so there is no need to go down	
Never use unmarked crane in controls	
Cut current line while cleaning crane	
Do not use basket crane to transport people	



What preventive actions can you take to work more safely when you clean the basement cane elevator?

Mark with a ✓ what you do.

Use forced ventilation	
Remove your shirt so it will not get dirty or wet	
Check that the gas in the ferment of bagasse dissipates	
Never work alone, work with at least one colleague	
Rotate with colleagues	
Do not smoke in basements	





**Improvement Proposal.** With regard to safety hazards in dangerous work what improvement can be applied in your work area?

Improvement proposal	
Worker that suggested it	
Supervisor	
Responsible for implementation	
Responsible for monitoring	
Implementation date of proposal	

#### 1.4.4. Chemical risk

##### A. Identify the factors of risk and their consequences



Which chemicals are used in the mill and what is their function?

Write the letter of the product that matches the description of its use.

- |                                     |                         |
|-------------------------------------|-------------------------|
| A) Flocculant                       | B) Calcium oxide (lime) |
| C) Oil and grease                   | D) Caustic soda         |
| E) Biocide (chlorine, bactericidal) | F) Sulfuric acid        |
| G) Fuel Oil                         | H) Bleach               |
| I) Muriatic acid                    |                         |

Help remove impurities from juice in the processing area	
Alcohol manufacture	
Lubricate equipment in all areas	
Clarify the juice	

Reduce the PH in juice being elaborated	
Control biological agents	
Descale tanks	
Fuel in boilers	



What health hazard have occurred due to chemical risk in your mill?

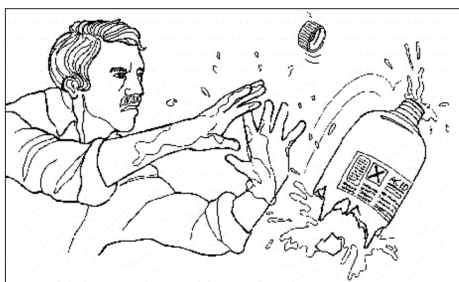
Mark with a ✓ the effects.


☐

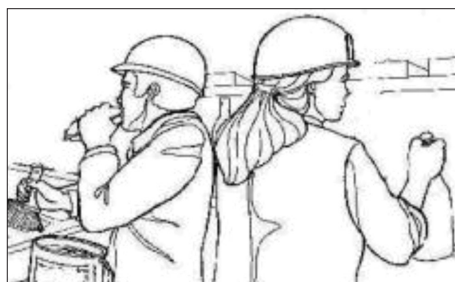
Poisoning by inhalation.


☐

Irritation, inflammation of the skin.


☐

Acid or other chemical agents burns.


☐

Poisoning or other poisoning by ingesting food or contaminated liquids.





How do you rate the harm of each chemical to workers' health?

Mark with a ✓ the degree of damage (possible effect) it can produce.

CHEMICAL PRODUCT	HARM IT MAY CAUSE				
	Headache, dizziness, nausea, blurred vision	Respiratory disorders	Injuries in the skin and allergies	Poisoning	Death
Lime					
Oil and grease					
Flocculant					
Powder of sugar					
Caustic soda					
Biocide					
Fuel oils					
Bleach					
Sulfuric acid					
Muriatic acid					

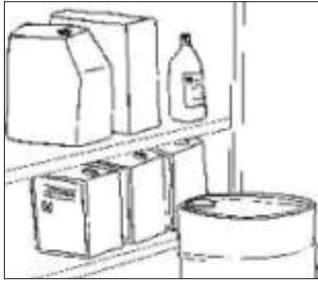




Generating sources.

When are you in contact with chemical products?

Tick the item with a ✓.

☐

When saving them.

☐

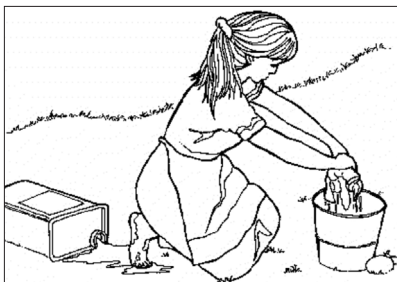
When carrying them.

☐

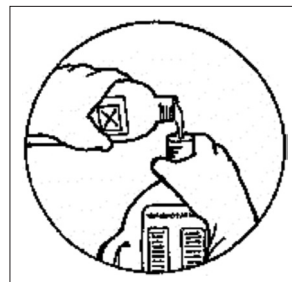
When tow waste, rags,  
or chemical waste containers.

☐

When do cleanup work,  
repair and maintenance.

☐

When I wash the containers  
with chemicals.

☐

When emptying products from one  
container to another.

## B. You eliminate, control or minimize the risks in your working area



Do you eliminate, control or minimize with the following actions?

Answer in the box writing YES or NO.



Use burlap to clean my hands from grease, chemical and put it in a trash container	
Follow the instructions on the security sheet and comply with the procedure of chemicals handling	
Use a suitable container and for one type of chemical	
Add some descaler, caustic soda or muriatic acid to clean bath	
Know where the emergency shower and equipment to control product spills are located	
Use aggressive descaling to finish quickly cleaning the tanks	
Ventilate work areasUse proper clothing, boots, protective mask and special gloves	
Avoid contacts with chemicals	
Cover tightly containers, check they seal and verify that there are no spills	
Make sure they have the correct label and the warning of the risk they can cause	
Use any container you have on hand when you only use the product and know what it is	
Replace the use of toxic products with those that do not harm workers or environment	
Delineate and mark the area when working with chemicals	
Delimitar y señalizar el área cuando se esté trabajando con productos químicos	

## C. You perform activities in accordance with safety standards



What behaviours can you adopt to work more safely?

Mark with a ✓ the benefits the following preventive conducts produce.

BEHAVIOURS	BENEFITS					
	Reduction of accidents and leave days for disability	Waste reduction	Environment responsible care	Safe working environment	I avoid rework	Increase productivity
Appropriate use of chemicals						
Store, handle and transport chemical products according to rules and procedures						
Wear the right gear and PPE						
Participate in the courses on use and handling of chemicals that the enterprises carries out						





**Improvement proposal.** Regarding the chemical risks which improvement could be applied in your work area?

Improvement proposal	
Worker that suggested it	
Supervisor	
Responsible for implementation	
Responsible for monitoring	
Implementation date of proposal	

### 1.4.5. Mechanical risk

#### A. You identify factors of risk and their consequences



Which are the possible damages from mechanical risk to workers' health?

Write in the column on the right the damage.

POST	HARM FROM MECHANICAL RISKS
Batey labourers	
Mill operators	
Firemen and ashworkers	

POST	HARM FROM MECHANICAL RISKS
Operators of bins	
Weighers and sewers	
Mechanics	



### What harm does it cause?

In each of the following statements, indicate with an F if they are false or with a T if they are true.

Aid teams to load, whether motorized or not, can cause accidents and serious injuries to third parties.	
The misuse of the equipment for processing can cause burns	
Using the riveter without being trained can cause eye injury	
The use of chisel and hammer can cause shock, severe cuts and fractures	
Using hand tools improperly can cause cuts or punches	
Misuse of air tool causes fractures and bruises	
It is better not to use tools if you do not know how to use them, as they may cause minor injuries or death	
Wear gloves and safety glasses makes hard to use tools, and this may be a cause of a serious accident	
The use of inappropriate tools of any kind is dangerous, the risk is higher when they are electrical or pneumatic: you may lose some extremities	
To be trained in the use of tools is a waste of time, everybody in the mill knows how to use the tools and runs no risk	
The most common accidents at the mill are not related with the use of tools	
The gears and chains and bands can cause entrapment with serious consequences: fractures or amputations	
If you know how to use tools and equipment, as well as how to perform the activity there are no accidents and there is no need to use protective equipment	



What are the mechanical risk generating sources, according to the department where they originated?

Join with a line the mechanical risk generating sources to the corresponding department.

GENERATING SOURCES
Turners yarn, feeder tables, chains, main driver, rakes, trucks, loaders overhead cranes
Shredder, gearboxes, bearings and crowns
Rakes used in furnaces and bagasse driver
Engines, conveyors, lifting materials, mica and magnifying glass
Conveyor, hopper and engine
Cranes, forklifts, stevedoring and towage
Tools (hammers, wrenches, pliers) and equipment (grinders, drills, lathes, roll formers, cutting and welding machines)
Trucks, scales, pneumatic cylinder, hydraulic lift

DEPARTMENT
Mills
Drying and packaging
Workshops
Boilers
Stores
Batey
Sugar cave
Manufacturing

## B. You eliminate, control or minimize the risks in the work place



How do you eliminate, control or minimize the risk?

Mark with a ✓ those actions you will put into practice.

Before starting, batey drivers should check there are no workers sleeping under trucks and tractors	
Avoid excessive concentration of equipment and tools	
Remove from the area objects and non-essential devices that prevent or restrict movement	
Place the protective elements that exist and are not installed	

Verify that there is good lighting in the hazardous areas	
Request and install necessary new protections detected in the operation	
Maintain the equipment	
Verify that the elevators are in good conditions	
Reduce danger points in the equipments (one by one)	
Request and respect specific operation and prevention signs	
Request and use the right tools	
Prevent temporary repair works become a common practice	
Request and use appropriate personal protective equipment	
Train in the use of tools and equipment	
Request supervision and guidance on jobs where you do not have enough skill	

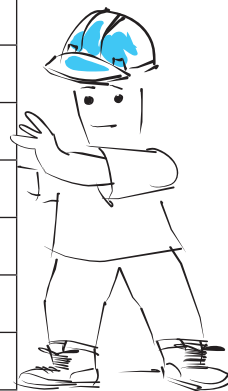
### C. You perform activities in accordance with safety standards



What behaviour can you adopt to work more safely?

Mark with a ✓ the behaviours that you can improve.

Share experiences and listen to tips	
Keep my tools in good conditions	
Do not disregard the operation of equipment	
Use the right tools	
Avoid distractions	
Follow the rules and operating procedures	
Wear PPE	
Be alert and protect myself before starting work	







**Improvement proposal.** Regarding the mechanical risks which improvement could be applied in your work area?

Improvement proposal	
Worker that suggested it	
Supervisor	
Responsible for implementation	
Responsible for monitoring	
Implementation date of proposal	

### 1.4.6. Electrical risk

#### A. You identify the factors of risk and their consequences



Your body is a good conductor of electricity? Why?

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What effect electricity has in the body?

Link with a line the damage that causes electric current to which you are exposed to.

25-30 miliampers (mA)
4 ampers (A)
10 to 25 mA
0.05 mA
1.1 mA
50 mA

Cardiac arrest
Tingling of hands
Chocking
Muscle tenanization
Tingling of the tongue
Hardening of the heart tissue (ventricular fibrillation)



How do you rate the harm it causes?

Mark with a ✓.

ELECTRICAL RISK, MISUSE OR POOR CONDITIONS	HARM IT MAY CAUSE			
	Light discharge, no injuries	Important discharge, reversible injuries	Severe discharge burns, permanent injuries	Electric shock, heart problems, danger of death or fire
Welding equipment				
Panels				
Contacts				
Engines				
Lighting (lines and installations)				



Where is the risk and what are the consequences?

Link with a line the risks and their consequences, according to the example.

RISK ORIGINATED AT...				
WELDING EQUIPMENT	PANELS	CONTACTS	ENGINES	LIGHTING
The lack of earth of equipment Current 110 or 220 v according to type of welding	Board without voltage labeling Use boards to store objects containing conductor materials	Lack of voltage signaling  Deterioration of equipment as consequence of connecting in wrong voltage	The engine is put into operation without checking isolation and earth	Failures of ballast Dirty tubes and shoes Damaged lines
Deterioration of equipment Risk of discharge for the worker if use contact with wrong voltage	Damage in ballasts and fails in lighting Risks of erros in process and occupational accidents	Risk of electrical discharge Possible short circuit induced by elements outside the board Risk of fire	Risk of electrical discharge due to bad landing of equipment Poor welding job Worn out terminals of welding maching Risk of discharge	Potential amage to engine and to the entire process Severe electrical discharge to the operator of the equipment Generation of electric arcs which can electrocute third parties
CONSEQUENCES				



Which situations can cause an electrical risk in your area?

Mark with a ✓.

	WELDING EQUIPMENT	BOARDS	CONTACTS	ENGINES	LIGHTING
Poor or non-existent ground					
Dirty lines, connections, accessories and equipment					
Lack or absence of standards					
Lack of protections					
Poor or temporary installation					
Improper use of equipment					
Overheating of lines					
Lack of signals					



Why electrical risk situations happen in your work area?

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## B. You eliminate, control or minimize the risks in your work area



How do you eliminate, control or minimize the risk?

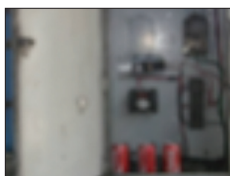
Link with a line one proposal for each case.

Lack of protection
Overheating of electrical lines, fire hazard
Lack of signal
Non-existent or poor ground
Poor or provisional installations
Improper use of installations or equipment
Dirt
Ignore or lack of standards

Be informed and trained
Operating and signaling standards and procedures
Clean boards, engines and lamps
Avoid modifying electrical installations without a project or supervision
Avoid using electrical cabinets and boards for storage
Identify inadequate, damaged or poor installations
Verify protections
Avoid connecting more than one equipment or tool for each contact or line

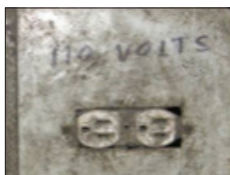


Which improvements do you suggest to eliminate, control, minimize the risk?  
Take the first situation as an example.



Using boards to store objects that contain conductive materials:

**Eradicate the bad habit of storing objects in the boards.**



Deterioration of equipment for plugging it in contacts with the  
wrong voltage:

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Engines without physical ground and isolation:

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There are failures of ballast:

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Not grounding the equipment:

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### C. Perform activities in accordance with safety standards



What preventive actions can you take to work more safely?

Mark with a ✓ the behaviors you choose to follow.

- ☐ Use the right tool.
- ☐ Avoid distraction.
- ☐ Follow operating procedures.
- ☐ Do not play with electricity.
- ☐ Train in electrical safety procedures.
- ☐ Use PPE and required accessories



**Improvement proposal.** Regarding the electrical risks, what improvement can be applied in your workplace?

Improvement proposal	
Worker that suggested it	
Supervisor	
Responsible for implementation	
Responsible for monitoring	
Implementation date of proposal	

### 1.4.7. Ergonomic risk

#### A. Identify the factors of risk and their consequences



What effects do they produce?

Put the corresponding letter of the activity in the corresponding effect.

ACTIVITY WRONGLY PERFORMED	EFFECTS	
A. Manual transportation of loads	Blood circulation problems, especially in legs	
B. Push or pull loads	Spine damage	
C. Work long time sitting	Muscle tension	
D. Repetitive movements	Damage to wrists, elbows, shoulders, waist	
E. Sustained muscular efforts	Muscle fatigue	
F. General physical exertion	Hernias, muscle and skeletal damage	



How do you rate the damage it causes?

Mark with a ✓.

ACTIVITY ERGONOMICALLY INCORRECT	HARM THAT MAY CAUSE			
	Light muscle discomfort	Non-disabling muscle injuries	Muscle and skeletal disabling injuries	Severe muscle and skeletal injuries permanent disability
Manual transportation of loads				
Push or pull loads				
Work long time sitting				
Repetitive movements				
Sustained muscular efforts				
General physical exertion				



Where ergonomic risks generate?

Link both columns, follow the example.

ACTIVITY	AREAS
Manual transportation of loads	• Batey
Push or pull loads	Control room
Work long time sitting	Mills
Repetitive movements	Boilers
Sustained muscular efforts	Production
General physical exertion	Packing and cave



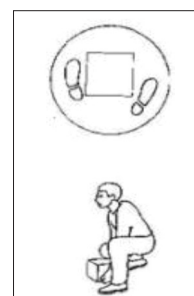
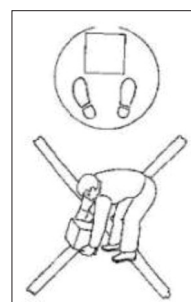
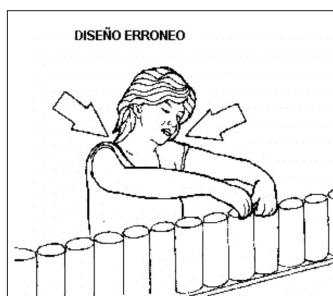
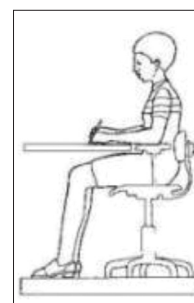
## B. You eliminate, control or minimize the risks in your work place



Do you eliminate, control or minimize the risk with the following actions?

Answer YES or NO in each box.

Make changes in the arrangement of the tools or equipment to perform task correctly without straining postures	
Rotation of workers in specific tasks that physically affect the worker	
Increased frequency and duration of breaks	
Improved work techniques	
Preparation of all workers in different positions for proper rotation	
Fitness of workers to meet the demands of the tasks	
Make changes in the task to make it more varied and avoid a monotonous work	
Postpone works	
Wait for another to perform the activity	
Preventive maintenance for equipment, machinery and tools	
Limit overload work on time	



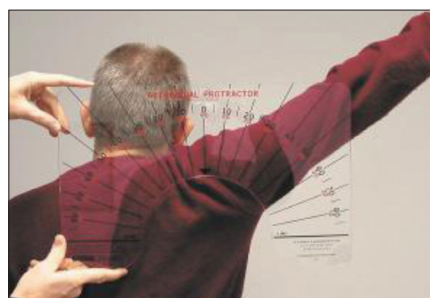
## C. You carry out the activities according to safety standards



What behaviour can you adopt to work safely?

Mark with a ✓ the benefits you obtain from the following preventive behaviours.

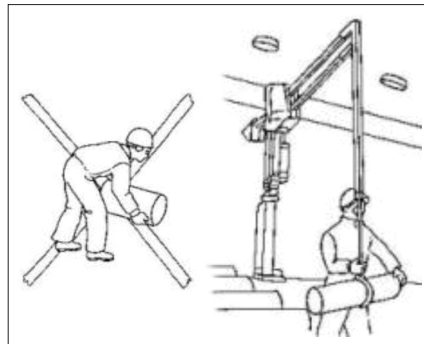
BEHAVIOURS	BENEFITS					
	Less fatigue	Avoid damage my joints	Avoid muscle and spine damage	Avoid accidents to others	Avoid mistakes and rework	Increase productivity
Adopt proper posture when working seated						
Move according to load procedures						
Wear appropriate clothing and auxiliary load equipment						
To be trained to perform the movements in such a way that do not affect my health						
Follow standards, instructions and prevention signals						
Limit the area in manoeuvring eventual load						





**Improvement proposal.** Regarding the ergonomic risks, what improvement can be applied in your workplace?

Improvement proposal	
Worker that suggested it	
Supervisor	
Responsible for implementation	
Responsible for monitoring	
Implementation date of proposal	



## 1.5. What should be avoided


### 1.5.1. Begin jobs inadequately




How do you consider the safety and health instructions, the use of the safety equipment and tools in the work assigned to you?

Circle the answer you consider correct.


I have to perform the task with the equipment they give me.



I ask for the appropriate equipment and tools.



I assure myself to have everything necessary and precise instructions



### 1.5.2. Long working days without breaks



Circle the answer you consider correct regarding long working days without breaks.

I stay at the post while getting someone to take over.



If noone comes I have to stay even if I have not rested.



I leave the area after my turn  
I do not have to stay



### 1.5.3. Perform tasks without being updated in standards and procedures



Circle the correct answer on updating in standards and procedures.

I try to be updated and perform tasks with caution



I am updated because I am asked to



I train first in order to safety



### 1.5.4. Modify protective equipment and incorrect use



Circle the answer you consider correct on use and modifying the personal protection equipment.

I know that wearing a helmet protects me, but that protection is just a part; I should also be alert of hazards.

I thought that using the helmet was enough



I take off my helmet when it disturbs or annoys me, everyone does it

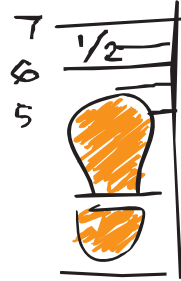


In the mill you have just been given safety shoes but you feel your feet too tight. What do you do?

Subraya la o las acciones correctas.



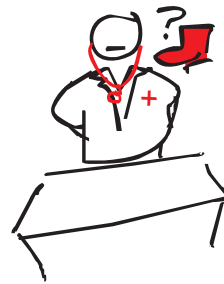
A. I keep wearing the ones I had and gave those to my son.



B. I check if the shoes are my size.



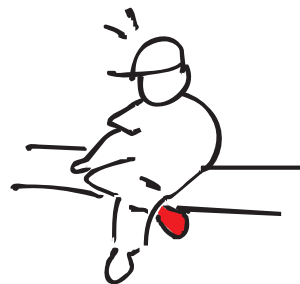
C. If I sell them and buy another ones more comfortable though they are not safety shoes.



D. I go to the medical service of the mill to check why I feel them that way.



E. I take the security accessory.



F. If they can cause me injury, I ask for a medical certification to ask for a change



Mark with a ✓ those actions you can avoid in wearing your personal protection equipment (PPE).

Flip the suspension to the helmet (because it is fashionable among peers), and I lose the protection buffer	
Fold down the middle of the leg of the boot (to ventilate it) as the boot can come loose in an accident	
Remove the cap of the safety shoes, because they lose their effectiveness in protecting my feet	
Modified the long-sleeved uniform as I can damage my arms	
Cut the gloves to have more grip, what can unprotect me of cuts or electric shocks	
Use safety belt instead of full body harness, putting me at risk of falling with fatal consequences	



### 1.5.5. Perform activities in hazardous situations with anger, haste, illness, fatigue or stress



Mark with a ✓ those actions you can avoid.



Getting angry because the takeover was absent and had to work the next shift	
Skip operating procedures or not use the PPE to end work soon	
Stay to work the next shift if I am very tired	
Reluctantly perform the task I was asked after a heated discussion	
Due to discussions, pressure or anger, cause an unsafe act for me or my colleagues	
Do not take breaks in wrong positions, not well ventilated places or awkward situations	

### 1.5.6. Ignore safety measures



Circle the answer you consider correct.

Which safety measures?  
I do not know them.



There are few signs,  
I respect them in front  
of supervisors.



I know the on-floor  
indications and signs



Which are the safety measures you should follow?

Choose with a ✓ those that can be applied to your post.

Use adequate personal protective equipment (PPE) according to the task	
Check that everything is organized and in place before perform the task on order to avoid hazardous conditions	
Follow the procedure for handling dangerous chemicals	
Follow the procedure for cutting and welding	
Follow the procedure for confined spaces	
Electrical discharged	
Follow instructions from my supervisor on safety and health	
Report the Joint Committee or the promoter of industrial safety on the task to be performed	







Answer the following questions by underlining the correct item.

Which are the consequences not following procedures and work instructions?

- a) I can be injured.
- b) I put at risk expected results.
- c) I put at risk my colleagues.

Which health risk can be avoided?

- a) Respiratory diseases.
- b) Serious accidents.
- c) Disabilities.

Which are the standard errors that can be avoided?

- a) To adopt awkward postures.
- b) Load in a wrong way.
- c) Have repetitive movements without a break.
- d) Load more weight than I am able.
- e) Keep forced static positions for a long time.
- f) Keep working being tired.

### 1.5.7. Use personal accessories at work



Use personal accessories at work (chains, watches, rings, earrings) and removable objects.

Circle the answer you consider correct.

I think that no one is affected if I wear my personal stuff. They should not get involved.



I think that to perform some tasks it is better not to bring rings or chains.



I am convinced that it is a good practice not wearing them. Besides avoiding an accident it is more hygienic.



### 1.5.8. Unnecessary use of fire equipment



Circle the answer you consider correct.

I did not know it should not be used.  
I learned that hoses deteriorate and valves bang.  
I will tell my colleagues.

Yes, we have used it, and try to leave everything in its place for use when necessary.



If there is no pressure in other keys, how can it be clean for auditing?

### 1.5.9. You eat little and badly and do not drink enough water



Mark with a ✓ those actions that you can avoid.

Leaving home without taking water	
Skip out for breakfast or lunch to attend work	
Eating anything quickly, not including fruit, vegetables and water at lunch	
Abusing of fried foods, fats and starches	
Not hydrating or avoid taking breaks to drink water during the shift	

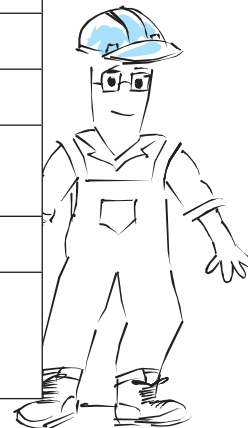


### 1.5.10. Failure to comply with medical recommendations



Mark with a ✓ those actions that you can avoid.

Going to work with flu or cough, without masks and without warm clothing	
Not taking medication on time	
Stop using hearing protectors (ear plugs)	
Stop going to medical examination when you have scheduled dates	
Neglect an injury or cut because you feel good	
Do not tell the supervisor the recommendations or medical restrictions regarding the activities to be performed	



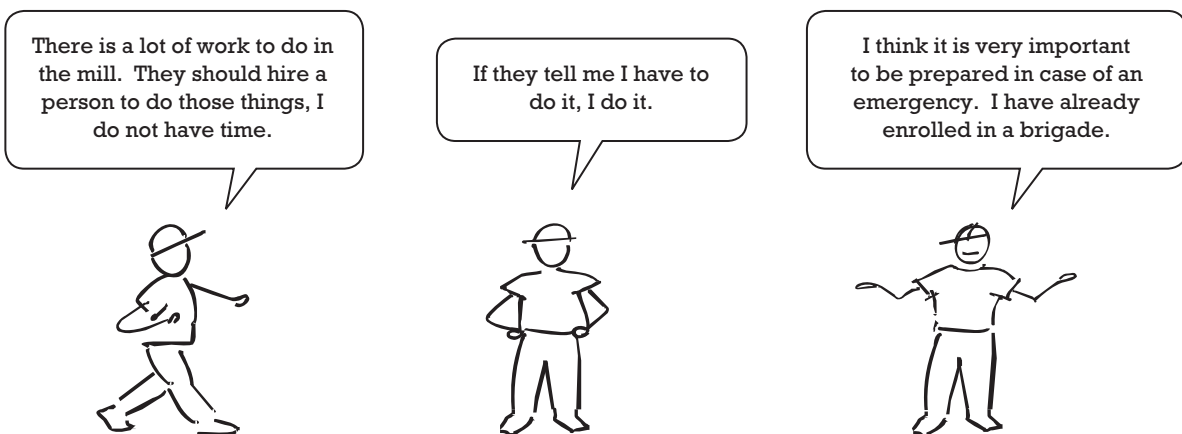
## 1.6. Outstanding performance

### 1.6.1. You participate in safety programmes



You participate in the Joint Committee safety and health programmes, the firefighting brigades, evacuation, first aid and civil protection programmes.

Circle your answer.



In which brigade would you like to be enrolled?

Mark with a ✓ the option. If you already are in a brigade, underline it.

☐

Rescue brigade.

☐

Firefighting brigade.

☐

Civil protection brigade.

☐

First aid brigade.



You participate in the Joint Committee safety and health programmes, the firefighting brigades, evacuation, first aid and civil protection programmes.

Please mark with a ✓ your answer according to your knowledge:

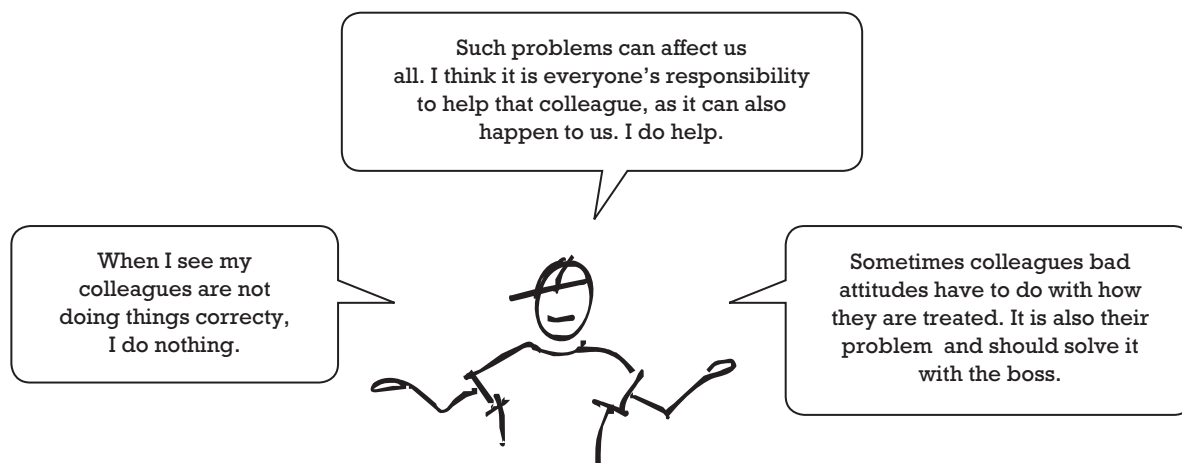
	I KNOW WHERE THEY ARE	I KNOW WHAT TO DO	I CAN TEACH
First aid cabinet			
Stretchers, paramedic equipment			
Extinguishers and fire prevention system			
Meeting points, emergency plan			
Special rescue team			

### 1.6.2. You help your colleagues



You help colleagues who make mistakes and are unnecessarily exposed to work risks.

Circle your answer.



### 1.6.3. You permanently attend and participate in safety and health programmes



Is it important to you that your health and safety are cared for?  
Why?

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Are you trained in the following subjects?

Give a number for each subject, according to the following scale:

1. "I have already been trained and can impart it."
2. "I know the subject".
3. "I have some idea, I would like to learn more".
4. "I need to be trained".

Safety standards and procedures	
Occupational diseases	
Unsafe acts and conditions, accidents and incidents	
USE OF PPE	
Most common accidents and how to avoid them	

Identification, evaluation and risk reduction	
First aid	
Signal, color coding, informative and restrictive signs	
Ergonomics, postural education	

What can happen if you are not trained?

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How frequently do you train and take actions to protect your health and integrity?

Link the drawings with the corresponding phrases. Underline the option that shows how long you perform those actions.



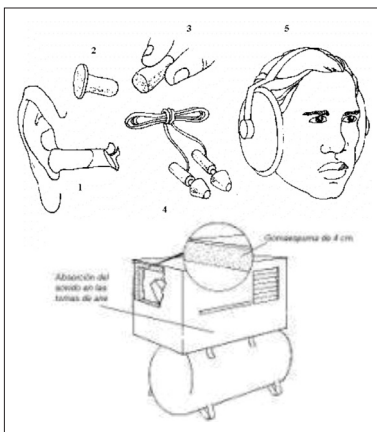
I assess my work environment and detect possible risks to my health.

- Never.
- Once a year.
- Once a month.
- Once a week.
- Daily.



I train to recognize signs and symptoms of possible occupational diseases..

- Never.
- Once a year.
- Once a month.
- Once a week.
- Daily.



Use adequate protection and participate in preventive and corrective actions..

- Never.
- Once a year.
- Once a month.
- Once a week.
- Daily.

## 1.6.4. You periodically undergo medical review



When was the last time you went to the doctor?

Answer the following questions with YES or NO, putting a ✓ in the corresponding box.

	YES	NO
Have you noticed changes in your hearing?		
Have you felt pain in joints, waist or back?		
Do you think your worries prevent you from working correctly?		
Do you feel your sight tired after work?		
Do you get tired very easily when performing physical activity such as running or climbing stairs?		
Have you been coughing or sneezing?		
Do you have an itch or have you noticed your skin different?		
Have you seen the doctor after some accident?		

**Important note:** If you put YES in some of the questions above, please visit the doctor at the mill.





### 1.6.5. You suggest improvement actions on safety and health and collaborate in its compliance



Circle your answer.



This is the time for you to suggest any improvement action you would like to be carried out, both for this guide as for specific actions in your work area. Please write down you main idea.

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## 1.7. Improvement proposals



Which are the improvements that can be implemented in your area / department?

Review your work area, identify a factor of risk and suggest an action for improvement in the following format.

IMPROVEMENT PROPOSALS FOR YOUR DEPARTMENT				
Kinds of risks	Physical	Mechanical	Electrical	Other
Description of the accident that may be caused according to the kind of risk				
Improvement proposal for prevention and / or protection				
Worker that made the proposal				
Supervision				
Reporting date to the Local Joint Committee of Updating for monitoring				
Responsible in the Committee for monitoring				

