

Risk Assessment to the Environment and OH&S

P19 Rev. 1 01/12/XX

Responsible Sector Environment and OH&S Managers Approval Quality Manager

CONTROL OF REVISIONS

Initial emission - 12/11/20VV

Revision 01 – 01/12/20XX: General revision of the procedure

1 - OBJECTIVE

This procedure establishes the systematic for surveying the risks to the environment and occupational health and safety (OHS), assessing the significant associated risks and the necessary control measures.

All risks, regardless of their significance, must be recorded in the Risk Assessment Matrix

Annually, or when there is a change in any process involving new risks, the risk assessment and assessment must be reviewed by the Sectors, with the objective of identifying potential adaptation needs. In addition, new risks can be identified at any time or the need to review the significance assessment of an already identified risk, as a result of an action taken or an occurrence, may arise.

The changes that happen in the processes, when for example in the design and construction of new workplaces, production systems, modification of existing ones, as well as when using new products or equipment, must take into account the factors that can compromise the environment and SSO, updating the matrix..

2 - RESPONSABILITIES

EMPLOYEES AND COLLABORATORS - Identify health and safety hazards in their respective activities and inform their immediate superior and SESMT.

RESPONSIBLE FOR THE SECTORS - Identify, evaluate and define the significance of the hazards and determine the risks to Health and Safety at Work, implementing appropriate control measures, together with the SESMT.

Environmental and Occupational Health and Safety Managers - Approve and insert the identified risks and their operational controls in the "Risk Assessment Matrix".

3 – IDENTIFICAÇÃO DOS ASPETOS AMBIENTAIS E DOS PERIGOS E AVALIAÇÃO DOS RISCOS A SSO

The identification of environmental aspects follows what is described in procedure P18.

The methodology for identifying hazards and assessing risks is based on surveying the activities developed in the various processes involved in the scope of the Management System and assessing the risks associated with each task performed.

For each activity in a given process, the items below must be identified and reported in the Risk Assessment Matrix.

- 1. Hazard number: sequential number that identifies each
- **2. Process**: name of the process in which hazards are identified example: Purchasing, Sales, Production, QC (see mapping of the processes in the Quality Manual as a reference).
- **3. Activity**: Process step that indicates its sequence (for example, in the production process: extrusion, printing, cutting and welding, laminating, rewinding)
- **4. Function**: name of the position of the person exposed to the danger.

- **5. Task**: detailing an activity, with a step-by-step sequence that indicates exactly where each hazard may be present.
- **6. Danger**: source, situation or act with a potential for harm in terms of injury, illness or a combination of these. Example: noise, dust, electricity, working at heights, etc.
- **7. Damage**: Actual or potential consequence of exposure to danger in terms of health and safety at work. Example: hearing loss, respiratory disease, burn, fracture, etc.

4- CLASSIFICATION OF THE ENVIRONMENTAL ASPECTS AND OH&S HAZARDS

The attributes of an environmental aspect or an OSH hazard are defined based on the severity of the occurrence and the probability that each aspect or hazard will occur, identifying the degree of risk for each one, according to the criteria below. At this stage, the attributes are evaluated, and the degrees of risk are defined based on the existing situation, including the controls used, if any.

- **Gravity:** It represents the potential for damage from environmental impact or danger, also considering its reversibility, and should be scored according to the table below:

GRAVITY	NOTE	CRITERIA	
Low	1	Damage totally reversible with the application of immediate actions; without consequences for the environment or for the SSO.	
Average	3	Damage with almost irreversible consequences for the environment or OH&S, but with corrective, preventive and mitigation control actions, can be restored.	
High	5	Medium term reversible damage with control or mitigation actions; it does not significantly affect the environment or OHS.	

- **Probability:** possibility of occurrence of a risk considering following criteria:

PROBABILITY	NOTE	CRITERIA	
Low	1	The possibility of damage occurring is considered practically null, with no previous occurrence being observed.	
Average	3	The possibility of occurrence that does not fit the criteria established for LOW Probability or for HIGH Probability.	
High	5	There is a greater possibility of damage occurring according to previous occurrence records, history or technical knowledge of the evaluators.	

a) Risk or Level of risk: combination between the likelihood of a dangerous event or exposure occurring and the severity of the injury or illness that may be caused by this event or exposure.

RISK = GRAVITY X PROBABILITY

According to the assessment, the risk is classified according to the table below, which determines the priority in risk control actions

	GRAVITY					
		LOW (1)	AVERAGE (3)	HIGH (5)		
PROBABILITY	LOW (1)	MODERATE	MODERATE	SUBSTANTIAL		
	AVERAGE (3)	MODERATE	SUBSTANTIAL	INTOLERABLE		
	HIGH (5)	SUBSTANTIAL	SUBSTANTIAL	INTOLERABLE		

Risks classified as intolerable or substantial will be considered SIGNIFICANT. For these risks, controls, monitoring and improvement actions must be defined within the management system. If

there is legislation associated with the environmental aspect or the OH&S hazard identified, it must be considered SIGNIFICANT, regardless of the result of the other factors evaluated, even if control measures already exist.

b) Situation: The situation indicates how the occurrence and danger to OHS is expressed in the development of the activity, as follows:

SITUATION	DESCRIPCION	EXEMPLE
NORMAL (N)	Aspect or danger related to routine operations or non-routine operations, but programmable (machine shutdown, corrective maintenance, etc.) and that will always be present while the activity is taking place	Effluent release, noise in the production process, organic vapors in printing.
ABNORMAL (A)	Aspect or danger associated with occasional situations resulting from a certain activity (accidents, operational failure of equipment, manifestations of nature, etc.). Situations that can be controlled or extinguished with material and human resources available at the event site or that require, in addition to the existing resources at the site, assistance from other equipment and more personnel, but that can be controlled in a relatively short time.	Departure of equipment, leaks.
EMERGENCY (E)	Situations in which there is a high potential for major damage to the environment or OHS and which requires the use of all material and human emergency resources internal and external to the unit (fire department, civil defense, ambulance, etc.) These situations must have their emergency care procedures tested and simulated periodically	Fire. Explosions. Large spills of chemicals or fuels

- **c)** Controls and programs: cite existing control measures to minimize or eliminate the risk, such as procedures, use of PPE and EPC.
- d) Legislation: indicate legislations applicable to the associated aspects or hazard identified.
- e) Atributes (after control): consider the assessment of the attributes and the significance of the risk after actions taken to reduce or eliminate these, in order to measure the improvement in environmental and OHS performance. The evaluation criteria are the same as those defined in the initial evaluation.