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# Environmental Management Plan

## Consulting and Technical Accessory

### 1. Glossary

**Environment** - is the surroundings in which Man and other beings live and interact with each other and with the environment, including: air, land, light, water, ecosystems, biodiversity and ecological relationships, all organic and inorganic matter, all the socio-cultural and economic conditions that affect the life of the community.

**Environmental aspect** - an element of an organization's activities, products or services that can interact with the environment.

**Sustainable development** - is development based on environmental management that meets the needs of the present generations without compromising the balance of the environment and the possibility of future generations also meeting their needs.

**Environmental management** - is the rational and sustainable management and use of environmental components, including their reuse, recycling, protection and conservation.

**Environmental Impact** - any change in the environment for better or for worse, especially with effect on air, land, water and health, resulting from human activities.

**Continuous improvement:** is the process of improving the environmental management system, in order to achieve improvements in global environmental performance, in accordance with the organization's environmental policies.

**Environmental Management and System:** is the part of a global management system, which includes the organizational structure, planning activities, responsibilities, practices, procedures, processes and resources to develop, implement, achieve, review and maintain the environmental policy.



### 1. Introduction

Environmental management is a recent practice, which aims to eliminate or minimize the damage caused to the environment by human intervention in its most diverse activities.

Good environmental management rises to the sustainable use of resources, such as: water, electricity, as well as reducing the production of solid waste or reusing or recycling it, instead of being disposed of in dumps.

In this way, the need arises for each company, whether public or private, to create an Environmental Management Plan as a way of creating an institutional culture, with a view to raising awareness among all its agents for the optimization of resources, for combating waste and to the search for a better quality of the work environment, all with respect for the environment. Therefore, this ENVIRONMENTAL MANAGEMENT PLAN reflects the commitment that Manutenção Preditiva Lda has to the rules and standards of good environmental management.

Environmental management is a tool that, in addition to contributing to the preservation of the environment, also allows the reduction of water, energy and raw material consumption costs, resulting in economic benefits for the company.

### 2. Scope of the Environmental Management Plan

This plan applies to all activities carried out under the different contracts where Manutenção Preditiva Preditiva Lda, is providing its services, including all employees, service providers and customers.

### 3. Legal framework

The Environmental Management plan complies with Decree-Law no. 45/2004, of 29 September, which defines that it must contain “the actions to be developed by the proponent, aiming at managing the negative impacts and enhancing the positive ones resulting from the implementation of the proposed activity, prepared within the scope of the Environmental Impact Assessment ”and Law no. 20/97, of 1 October which aims to define legal bases for the correct use of the environment and its components, with a view to materializing a sustainable development system in the country.

The Environmental Management Plan contains a set of programs and respective actions that are intended to make the project be carried out according to the principles of environmental protection. The contents of this Plan must contain, among others, the monitoring program, risk control programs, maintenance measures and environmental education programs.

### **4. Requirements of the Environmental Management Plan**

- Identification of environmental aspects and significant impacts inherent to the activities developed by Manutenção Preditiva Lda;
- Characterization of the company's internal facilities and its customers;
- Establishment of the Environmental Management Plan's objectives;
- Identification of the actions that possibilities the achievement of the objectives set;
- Communication of the Environmental Management Plan to all employees of Manutenção Preditiva Lda, aiming to raise awareness and environmental education;
- Periodic analysis of the Environmental Management Plan, intending to implement the necessary corrective measures;

#### **4.1. Identification of significant environmental aspects and impacts**

It is important to identify the aspects and the respective environmental impacts resulting from the performance of all activities developed by Manutenção Preditiva Lda, which can be minimized or even eliminated by changing behaviors or establishing mitigating measures.

In this way, a survey will be done of the environmental aspects and impacts inherent to the activities developed by Manutenção Preditiva Lda, in order to identify the critical points related to the environmental impacts produced and eventual waste generated, for establishing measures to mitigate these impacts and waste, as well as defining the environmental objectives to be achieved.

Regarding to energy consumption, it is necessary to carry out a survey of all forms of energy consumption, such as electrical equipment in operation, lighting systems, Heating, Ventilation and Air Conditioning Systems, so that can be evaluated energy consumption and the costs associated with its use. This will allow you to evaluate the efficiency of energy consumption, being able to identify what causes energy waste and the measures to be taken to save more energy.

### 4.2. Characterization of the activities developed by Manutenção Preditiva Lda

MP Lda, develops a range of activities for its customers, namely:

- Predictive maintenance, with equipment monitoring, vibration analysis, oil samples for analysis, electrical and mechanical;
- Thermography, industrial electrical maintenance, as well as corrective work, such as laser alignment of shafts, pulleys and balancing of fans, turbines and others.

Each of these activities directly or indirectly produces diversified solid waste that is subject to good management.

### 4.3. Consumption

#### Water and electricity consumption

In order to achieve environmental sustainability with regard to the use of electricity and water, good practices must be created to save these two resources. Thus, it is imperative that the amount of energy and water is checked at certain intervals.

As a way of assessing the consumption of these resources, a survey of the quantities consumed in the last two years should be carried out in order to assess the current situation of consumption levels, which will allow the definition of goals to reduce consumption in the current year.

### 4.4. Solid waste management

Waste Management is one of the ways to eliminate or reduce negative environmental impacts. The lack of good waste management causes environmental problems, such as: soil's , rainwater and groundwater, clogging of water drainage systems, among others.

Aware of these problems, Manutenção Preditiva Lda, has already contributed to reduce the amount of waste deposited in dumps, however, there is still much to be improved in terms of waste management. In this way, measures were created to improve the management process and the actions to be taken to make these measures real.

Currently, the waste management process is carried out as shown in the table below.

Type of waste	Management process / final destination	Managing Entity	Responsible HSE
Paper	Bin	Manutenção Preditiva Lda	Bernardo Júnior
Plastic	Bin	Manutenção Preditiva Lda	Bernardo Júnior
Organic matter	Bin	Manutenção Preditiva Lda	Bernardo Júnior
Tires	Bin	Manutenção Preditiva Lda	Bernardo Júnior
Burnt oil	Incineration	Pessoas singulares	Bernardo Júnior
Used Batteries	Recycling	União sucata/ Private people	Bernardo Júnior
Filters	Incineration	União Sucata	Bernardo Júnior

#### 4.5. Objectives of the Environmental Management Plan

The Environmental Management Plan for MP Lda and its customers, is part of a continuous effort by the entire organization in the search for environmental excellence, within the framework of prevention and continuous improvement in environmental management, with a view to a development sustainable.

Thus, the following objectives were defined: the reduction of energy, water and paper consumption and the increase in the level of recycling of all waste produced. On the other hand, in the expectation of changing the behavior of all employees, educational and environmental awareness actions will be created, to save energy, water, paper and reduce its production, as well as maximizing the reuse / reuse of waste.

#### 4.6. Environmental Management Program

The Environmental Management Program was created taking into account the established objectives, in this way measures were created to be put into practice to achieve the established objectives.

Objectives	Actions	Responsible
Reduce / save electricity consumption	<ul style="list-style-type: none"> <li>➤ Turn off all air conditioners and empty room lamps;</li> <li>➤ Make use as most as possible of the natural lightening, exploring the sunlight;</li> <li>➤ Turn off computers and air conditioners and other electrical equipment at the end of the working day.</li> </ul>	Managers and employees in general
Reduce / save water consumption	<ul style="list-style-type: none"> <li>➤ Repair all tubes / hoses / ducts with cracks in time;</li> <li>➤ Changing dripping taps;</li> <li>➤ Choose to use showers with flow reducers and, if possible, taps with flow reducers as well.</li> </ul>	Managers and employees in general
Reduce paper consumption / waste	<ul style="list-style-type: none"> <li>➤ Choose to print double-sided documents whenever possible;</li> <li>➤ Dematerialization of pay slips and requests for PPE and work materials;</li> <li>➤ Avoid printing when it is not really necessary.</li> </ul>	Employees in general
Improve waste management	<ul style="list-style-type: none"> <li>➤ Reduce the production of waste paper</li> <li>➤ Create conditions to include paper in recycled waste</li> </ul>	Managers and employees in general
Sensitize and Educate employees	<ul style="list-style-type: none"> <li>➤ Training and awareness-raising activities for all workers and managers</li> </ul>	Department of Health, Safety and Environment



# Environmental Management Plan

## Consulting and Technical Accessory

### 4.7. Implementation and operationalization of the Environmental Management Plan

There is no defined structure, in terms of environmental management, with only the Department of Safety, Hygiene and Environment appointed, which has the responsibility to promote its implementation, monitor its compliance and evaluate its effectiveness.

### 4.8. Environmental training and awareness

The implementation of the Environmental Management Plan depends on the educational and environmental awareness actions that are carried out. Only with the commitment of the organization and all its employees to minimize or eliminate environmental impacts, will it be possible to achieve the objectives set.

### 4.9. Periodic analysis of the Environmental Management Plan, aiming to implementing the necessary corrective measures

#### Verification and corrective actions

Taking into account the established objectives, the implementation of the measures should be monitored periodically for all activities that have a significant impact on the environment, as well as recording all information that allows monitoring compliance with the established environmental objectives. Any corrective action that should be necessary, due to detected environmental non-conformity, must be implemented and recorded.

#### Review of the Environmental Management Plan

The Department of Health, Safety and Environment, in the sense of continuous improvement, is responsible for evaluating, on an annual basis or whenever deemed pertinent, the effectiveness of the environmental management system, based on the reports that will be prepared.

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Prepared by: Bernardo Júnior	HSE Responsible	Date and signature:	12-03-2021

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Verified by	Faizal Mussagy	Contract Director	Date and signature

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