



## **employment & labour**

Department:  
Employment and Labour  
REPUBLIC OF SOUTH AFRICA

### **Annexure 1**

# **Explanatory Notes to Ergonomics Regulations 2019**

**Chief Directorate: Occupational Health and Safety**

NO: XXX

## FOREWORD

The purpose of this document is to provide guidance to all employers, employees and the public alike, who are responsible for or concerned with the control and prevention of exposure to ergonomic risks in the workplace.

This guide does not replace the Ergonomics Regulations of 2019. It is intended to give practical insight into the application of the Regulations. It should always be read in conjunction with the Ergonomics Regulations and the Occupational Health and Safety Act of 1993.

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## INTRODUCTION

Ergonomics (human factors will be considered the same as ergonomics in this document) takes a systems approach to understanding work acknowledging the interactions between the various elements within the work-system including tools/technology, tasks, environment, organisation and persons in the workplace. Ergonomics aims to balance these interactions through the design of the system using a human-centred approach. Applied comprehensively in a workplace, ergonomics can be as important a concept as strategic planning and quality control. It has a real and direct impact on health and safety, productivity and performance. Ergonomics can affect an entire work-system by enhancing the most important component - the ability to balance task demands with employee capabilities.

The practical benefits of ergonomics are, but not limited to:

- Labour – improved health, well-being and safety of employees
- Business – improved productivity, efficiency and prevention of occupational incidents and adverse health effects
- Government – a workplace that is safe and without risk to the health of employees

The regulations speak to an ergonomics programme approach which should be integrated into existing occupational health and safety programmes. An ergonomics programme is a systematic process for anticipating, identifying, analysing and controlling ergonomic risks, which should include but not be limited to, ergonomics hazards identification and risk assessment, risk controls, information and training, monitoring and evaluation and medical surveillance. It is important to acknowledge that ergonomics is not a stand alone hazard, but rather part of the broader approach to ensuring a workplace that is safe and without risk to the health of employees as well as productivity at work.

**Regulation 2: Scope of Application**

These Regulations are intended to protect the health and safety of any person who may be exposed to ergonomic risks in the workplace.

**Regulation 3: Information, Instruction and Training**

The provision of information, instruction and training for any person who may be exposed to ergonomic risks is of paramount importance, in order to assist employers and employees in reducing the exposure to ergonomic risks. The employer must ensure they are familiar with basic ergonomic principles, as well as establish a training programme for all employees exposed to ergonomic risks.

The employer must ensure that he or she obtains suitable information in order to train employees effectively. Training of employees may be conducted either internally or externally.

Information and training must be planned carefully and presented on commencement of employment. The frequency of training thereafter should depend on the severity of the ergonomic risks and should be determined by the health and safety committee. It is of the utmost importance that health and safety committees and health and safety representatives are thoroughly trained and educated with regards to ergonomics. This is to ensure that the health and safety representatives or committees are able to make informed decisions relating to their discretionary powers.

An employer should verify that employees understand ergonomic risks, with health and safety committee members, health and safety representatives and employees contributing to developing and implementing training programmes in relation to ergonomics.

It is the duty of employers to ensure that all employees have thorough knowledge of the provisions of the Act and these regulations. The aspects of training included in the regulation is the minimum content of a training programme however, the employer should provide a suitable training programme that is understandable to all their employees.

**Regulation 4: Duties of those who may be at risk of exposure to ergonomic risks**

Employees or any other person exposed to ergonomic risks at the workplace, have a moral and legal duty to comply with any lawful instruction and procedure (written or oral) given by or on behalf of employers. In addition, employees must comply with the requirements laid down by the Act and other applicable regulations. These instructions and procedures may differ from one workplace to another because workplaces are not identical.

**Regulation 5: Duties of Designers, Manufacturers, Importers and Suppliers**

Effective use of ergonomics in the design process will result in a workplace that is safe and without risk to the health of employees. Ergonomics is design driven, therefore it does not stop with determining risk but with the resolution and implementation of new designs to mitigate the risks identified, whether these risks are for incidents, adverse health effects or poor productivity. Designing tasks, plant, machinery and work-systems to suit the employee can reduce human error, incidents and adverse health effects. Failure to observe ergonomic principles can have serious consequences for employees and for the employer.

The following should be taken into account by the designer, manufacturer, importer and supplier:

- Ergonomics needs to be taken into account in all steps of the life cycle of the plant, machinery or work systems. The design, installation, operation, maintenance and decommissioning should be considered
- Employee characteristics
- Foreseeable operating conditions including upsets and emergencies.
- The interface between the employee and the system
- Instructions, technical information, warning signs, safe operation for the employee must be provided
- Where possible, SANS standards must be taken into account

### **Regulation 6: Ergonomics Risk Assessment**

It is the duty of the employer to conduct a risk assessment for all tasks where an employee is exposed to ergonomic risks. The risk assessment may be carried out by an employee who is familiar with the task, provided they have the competency to do so. Before an employee conducts the risk assessment, it is the responsibility of the employer to ensure that the individual has the adequate level of competence to conduct the risk assessment. The employer may require a health and safety professional who has to demonstrate appropriate competence to conduct the risk assessment when the task being carried out is complex. While one individual may be able to carry out a risk assessment, it may be beneficial to draw on the knowledge and competencies of others.

The risk assessment should include at least the following steps:

- Identifying the hazards employees are exposed to
- Identifying the employees who are exposed to the risks and how they may be affected
- Analysing and evaluating the risk
- Prioritising the risks

The risk assessment should be conducted and or reviewed at least every two years and recorded. Shorter review periods may be necessary if new information becomes available or there has been a change in task or control measures. The risk assessment should also be reviewed if a reportable incident occurs or if an employee suffers an adverse health effect as a result of exposure to ergonomic risks.

### **Regulation 7: Risk Control**

The introduction of a sound ergonomics programme will go a long way towards controlling ergonomic risks. However, it is good practice to continually monitor adverse health effects at the workplace, in order to check that the risk control measures are working. There are many cases where problems are still occurring and further steps are needed to solve the problem. The following factors should be taken into account in controlling the risk:

Ergonomic risks should be reduced to the lowest reasonably practicable level through control and prevention measures in the order of priority below:

1. **Elimination:** The job should be redesigned so that the hazard is removed from the workplace
2. **Substitution:** The current task should be replaced with a less hazardous task. It is important to ensure that the new design is less hazardous than the original
3. **Engineering controls:** Use equipment or other measures to reduce the risks associated with tasks. Priority should be given to measures which protect collectively over individual measures
4. **Administrative controls:** Identify and implement new procedures that will allow work to be done safely
5. **Personal protective equipment:** Only once all the previous measures have been tried and shown to be ineffective in controlling risk to a reasonably



practicable level, personal protective equipment (PPE) should be considered. When PPEs are used it is important that employees are involved in the fitting and consulted in the selection of fit for purpose PPE

### **Regulation 8: Medical Surveillance**

Medical surveillance in the workplace is an integral part of occupational health surveillance. Surveillance is the close observation of a person or group, especially those identified by the risk assessment. It refers to the detection of adverse health effects resulting from occupational exposures at as early a stage as possible, so that appropriate preventive measures can be instituted promptly. For this reason, medical surveillance is placed at a secondary level of prevention as the adverse health effect is still reversible or more easily treatable.

Medical surveillance should have a clearly defined objective for targeted employees and medical procedures, such as questionnaires and health examinations, must be available to achieve the objective. Medical surveillance must be risk based and tailored to a specific adverse health effect that is to be prevented. Medical surveillance for ergonomics should be either incorporated into existing medical surveillance, for employers who have already implemented such surveillance or establish ergonomics medical surveillance for the workplace.

Medical surveillance is performed at regular pre-determined intervals; at the beginning, termination of employment and throughout the employment period and/or as determined by the occupational medicine practitioner. Medical surveillance must be carried out by occupational medicine practitioners and occupational health practitioners.

Medical surveillance includes the following elements:

1. Identification of employees according to the ergonomics risk assessment, for which the medical surveillance activities will be appropriate;
2. An initial health examination and collection of clinical history;
3. Periodic health examinations at regularly scheduled intervals;
4. More frequent and scheduled health examinations, as indicated on the basis of findings from these examinations;
5. A written report of medical findings;
6. Employee training to recognise symptoms of exposures to ergonomic risks; and
7. Employer actions in response to the identified adverse health effects on employees with ongoing data analysis to evaluate collected information and institute control measures, including employee rehabilitation at the workplace.

#### **Regulation 9: Maintenance of Controls**

The employer should implement a planned maintenance programme for all plant, machinery and systems in order to reduce the ergonomic risks. The programme should include a system for reporting defects by employees and a corrective action plan.

Health and Safety Representative and employees must report any defects in plant, machinery or systems immediately to the employer.

**Regulation 10: Records**

Well-kept records may provide useful information in the risk assessment process. The analysis of records may provide a link between the exposure to ergonomic risks and adverse health effects caused by the exposure to ergonomic risks.

The employer must ensure that records are kept for; information and training provided to employees, ergonomics risk assessments conducted at the workplace, the results of health examinations conducted on employees; and action plans for the implementation of control measures and the maintenance of such control measures.

Due to the nature of ergonomics adverse health effects occurring over time, retention of records is needed to investigate any causal relationship, if any, between exposure to ergonomic risks and diagnoses. Records of incidents must also be kept in order to determine whether there was an exposure to ergonomic risks.

**Regulation 11: Ergonomics Health and Safety Technical Committee**

The chief inspector must establish a health and safety Technical Committee (TC) for ergonomics. The TC shall consist of a tripartite structure which includes; government, organised business and organised labour and specialists in the field of ergonomics. The specialists will include a person from a professional body recognised by the chief inspector, a person from a higher education institution and a person representing occupational medicine. The chief inspector may co-opt a person or persons to the TC, who have competence in a specific matter relating to ergonomics health and safety.

The duties of the ergonomics health and safety technical committee include;

- Advising the chief inspector on matters relating to codes, standards and training requirements in terms of ergonomics or any matter referred to the TC
- Making recommendations to the chief inspector on matters applying to the Ergonomics Regulations
- Performing any other function of administration for the Ergonomics Regulations

The TC must also work within the instructions and rules of conduct established by the chief inspector.