

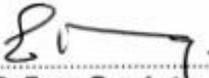
TITLE: THE SAFE USE OF PESTICIDES AND  
AND HERBICIDES

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FUNCTIONAL RESP.

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## **Introduction**

The health and safety of workers and members of the public, and protection of the environment against pollution are important to Eskom. Pesticides and herbicides play a major role in agricultural practice, however, they are potentially hazardous to human and animal life if not used safely. Pesticides and herbicides can also become environmental pollutants if not properly managed and used.

Pesticides and herbicides are applied to areas and vegetation by registered and competent pest control operators under strictly controlled conditions.

Eskom believes that:

- workers and members of the public shall be protected against possible exposure to pesticides and herbicides which could adversely affect their health, safety and well-being;
- the natural environment shall be protected against pollution caused by pesticides and herbicides;
- employees shall be conversant with health, safety and other risks associated with pesticides and herbicides; and
- pesticides and herbicides should only be used and applied under strictly controlled conditions, by competent personnel, where other actions have failed to produce the required results.

This standard shall be used in conjunction with ESKPBAAD4, *Herbicide Management* policy.

## **1 Scope**

### **1.1 Purpose**

To provide the minimum health, safety and environmental requirements during the procurement, transport, storage, use and disposal of pesticides and herbicides.

### **1.2 Applicability**

This standard is applicable throughout Eskom, Eskom Enterprises and subsidiaries, as well as to all employees and contractors.

## **2 Normative references**

The documents listed below contain provisions that, through reference in the text, constitute requirements of this standard. At the time of publication the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent revisions of the documents listed below. Information on currently valid national and international standards may be obtained from the Information Centre and Eskom Documentation Centre at Megawatt Park.

Also refer to annex C for further reference.

Conservation of Agricultural Resources Act, No. 43 of 1983. (as amended)

Environmental Conservation Act, 1982 (Act 100 of 1982). (as amended)

Hazardous Substances Act, 1973, (Act 5 of 1973). (as amended)

Occupational Health and Safety Act No. 85 of 1993. (as amended)

The Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act 36 of 1947). (as amended)

National Environmental Management Act, ActNo. 107 of 1998

National Forest Act, Act No. 84 of 1998

National Veld and Forest Fire Act, Act No. 101 of 1998.

National Water Act, 1998 (Act 36 of 1998). (as amended)

The National Road Traffic Act (No 83 of 1996).

I.L.O. — Encyclopaedia of Occupational Health and Safety. (as amended)

SABS 072:1993, *The safe handling of pesticides.*

SABS 075:1981, *List of common names and classification of pesticides and other agricultural chemicals.*

SABS 0124:1977, *Application of certain soil insecticides for the protection of buildings.*

SABS 0133:1977, *Application of pesticides in food handling, food processing and catering establishments.*

SABS 0204:1985, *The application of fumigants.*

SABS 0206:1987, *Safety procedures for the disposal of surplus pesticides and associated toxic waste.*

SABS 898:1980, *General requirements for pesticides.*

SABS 1165:1977, *Chlordane emulsifiable concentrates (soil insecticides).*

SABS 1328-1:1981, *Compression type sprayers, Part 1: Manually operated.*

SABS 1343:1985, *Insecticidal solid fumigants containing aluminium phosphide (food storage premises).*

ESKPVA05: Rev 0, *Occupational hygiene risk assessment.*

ESKPBAAD6: Rev 7, *Environmental Management Policy*

### **3 Definitions and abbreviations**

Unless indicated otherwise, the following definitions apply throughout this standard.

#### **3.1 Definitions**

**3.1.1 agricultural remedy:** Any chemical substance or biological remedy, or any combination or mixture of any substance or remedy, intended or offered to be used for the destruction, control, repelling, attraction or prevention of any undesired microbe, algae, nematode, fungus, insect, plant, vertebrate, invertebrate or any part thereof.

**3.1.2 pest control operator:** means a person who as, or in the course of, his trade or occupation administers agricultural remedies for the purposes for which they are intended;

[Definition of "pest control operator" inserted by s. 1 (b) of Act No. 4 of 1980.]

**(The Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act 36 of 1947) (as amended))**

Section 7 (2)(a) No person shall for reward, or in the course of any industry, trade or business-

- (i) use, or recommend the use of, any agricultural remedy or stock remedy for a purpose, or in a manner other than that specified on the label on a container thereof, or described on such container,

- (ii) use any agricultural remedy unless he is a pest control operator registered in terms of this Act, or otherwise than in the presence and under the supervision of, a pest control operator so registered.

[Paragraph (a) substituted by s. 6 of Act No. 4 of 1980.]

**(The Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act 36 of 1947) (as amended))**

**3.1.3 pesticides:** A chemical substance (which may or may not be mixed with other substances), used for the destruction of an organism detrimental to man or to his interest. The word clearly has a very wide meaning and includes a number of other terms, (e.g. insecticides, fungicides, herbicides, rodenticides, bactericides, miticides, nematocides, molluscicides) which indicate the organism or pests a particular chemical or class of chemicals is designed to kill. Since different types of chemical agents are used for these general classes, it is usually advisable to indicate the particular category of pesticide.

**3.1.4 herbicide:** A chemical substance or cultured biological organism used to kill or suppress the growth of plants.

**3.1.5 toxicity:** Toxicity is expressed by the LD 50 value; this a statistical estimate of the number of mg of the chemical per kg of body weight, required to kill 50 % of a population of test animals. The dose may be administered by a number of routes, usually orally or dermally, and the rat is the standard test animal. Oral or dermal LD50 values are used according to which route has the lower value for a specific chemical.

## **3.2 Abbreviations**

**3.2.1 MSDS:** Material Safety Data Sheets

**3.2.2 LD:** Limited Death

**3.2.3 OEL:** Occupational Exposure Limit

**3.2.4 PCO:** Pest Control Operator

**3.2.5 RSA:** Republic of South Africa

**3.2.6 HCS:** Hazardous Chemicals Substances

## **4 Requirements**

### **4.1 Registration and competency of pest control operators**

All contractors appointed to apply pesticides and herbicides shall be registered in terms of the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act (Act 36 of 1947), as amended.

Herbicides application shall be done by suitably trained personnel in possession of an appropriate course certificate, or under the direction of a qualified pest control operator, registered under the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act (Act No 36 of 1947). (Refer to 3.1.2 for the definitions as per the Act)

Initial training shall be supplemented by regular further training and refresher courses, as determined by the responsible line manager.

In the case of over-exposure to herbicides, the victim shall immediately be removed from the scene and taken to fresh air, thoroughly washed and his clothing changed. This shall be done in accordance

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with safety procedures. Test facilities and qualified medical care shall be provided. Treatment is symptomatic and shall be carried out in hospital.

## **4.2 Selection of pesticides and herbicides**

Purchasing of pesticides, herbicides and other agricultural remedies for use in Eskom, and the selection of such remedies for a particular application, shall be done by suitably qualified persons. Special emphasis shall be placed on:

- only using registered agricultural remedies in accordance with labelled instructions;
- all products shall be accompanied by a copy of the Material Safety Data Sheet (MSDS);
- the use of the most cost-effective, safe, environmentally acceptable remedies;
- the correct use and handling of such products;
- the prevention of the exposure of persons, the public, animals, foodstuffs and adjacent land to such chemicals; and
- the prevention of the pollution of natural resources, ground and water by such remedies.

## **4.3 Record keeping of the availability, use and application of agricultural remedies**

A register of all agricultural remedies in use, and in stock, shall be kept and maintained on site, as well as the relevant material safety data sheets. The material safety data sheets shall be readily available at strategic points, for example, medical and first aid points, stores, fire station, etc.

A record shall be kept of the use of pesticides and herbicides as specified in the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act and ISO 14001. This includes what product, used by, when, for what purpose, amount used, particulars of personal protective equipment used, and incidents of poisoning or spillage.

## **4.4 Condition and labelling of containers**

Containers containing agricultural remedies are subject to climatic conditions and rough handling methods which may cause them to leak, break or render instructions illegible, causing potentially hazardous conditions. Supervisors, pest control operators and storekeepers, shall ensure that stocks are regularly inspected for leaks and damaged containers. All damaged or empty containers shall be removed immediately and disposed of in accordance with the label requirements and MSDS's. No unlabelled containers shall be allowed.

Labelling provides information on the hazardous nature of the pesticide or herbicide, as well as information regarding the identification and correct use of the pesticide or herbicide in the container. Apart from the trade name, the ingredients list provides a breakdown of the substances contained in the chemical. This enables the user to identify the active ingredients and toxic substances.

The instructions on the label regarding use of the product are of major importance to the user. Many an accident or loss / damage incident has occurred due to neglect on the part of the user, to either read instructions, or apply a product as directed. The label also contains a hazard warning with signs and inscriptions, related to pesticides or herbicides (see Normative references).

## **4.5 General principles**

While the general principles for the use of pesticides and herbicides remain the same for all compounds, the stringency with which they shall be applied depends on the toxicity of the particular chemical. The following points shall be taken into account:

### **4.5.1 The route of absorption**

Poisons enter the body through the mouth (ingestion), the lungs (inhalation), the intact skin (percutaneous absorption), or wounds in the skin (inoculation). The inhalation hazard is determined by the physical form and solubility of the chemical. The possibility and degree of percutaneous absorption varies with the chemical, but some chemicals also exert a direct action on the skin, causing dermatitis. Pesticides and herbicides are applied in many different forms: as solids, by spraying in dilute or concentrated form, as dusts (fine or granulated), and as fogs and gases. The method of application has a direct bearing on the likelihood of absorption.

Contamination through the skin is as lethal as ingestion or inhalation, and utmost care shall be taken to prevent unnecessary contact with the skin. For practical purposes, dermal or percutaneous absorption of a chemical is more important than oral absorption in occupational situations.

## **4.6 Medical Surveillance and Biological Monitoring**

Pest control operators and other operational personnel using, or exposed to, agricultural remedies shall undergo regular medical surveillance, as prescribed by Eskom's Chief Medical Officer. Medical surveillance and biological monitoring shall be conducted at intervals determined by the exposed worker's occupational risk exposure profile, and as prescribed in the Hazardous Chemical Regulations of the Occupational Health & Safety Act. All pest control operators and other persons potentially exposed to hazardous chemicals, shall undergo a pre-placement assessment

Line management (occupational hygienist) shall complete the employee's job specification which shall qualify, and quantify, all chemical hazards to which workers and others may be exposed, and determine the personal exposure concentrations in relation to the OELs.

## **4.7 Safety and health measures**

Adverse effects may be avoided by following the instructions provided on the labels of pesticides and herbicides. The general toxicity, irritation and sensitisation potentials, and the mode of use, determine the protection necessary in each case. Skin contamination is an ever present danger, especially where heat and humidity preclude the use of protective clothing. Irritation of the skin and mucous membranes may result from spillings of various formulations. Extended contact is hazardous when the highest recommended application rates of working dilution are used in summer, or in greenhouses. The following points are important:

### **4.7.1 Availability**

The toxicity of many pesticides/herbicides is such that their indiscriminate use by the general public/unauthorised Eskom personnel, is certain to result in many people being affected, often fatally. It is essential that access by the public to all formulations/products shall be restricted (behind lock and key).

### **4.7.2 Transportation**

Pesticides and herbicides of any degree of toxicity shall be transported in accordance with national legislation and in containers which are clearly labelled, leak-proof and not easily damaged. They shall not be transported beside or above any type of food, and all spillages shall be reported immediately. Any foodstuff transported in the same compartment as a pesticide/ herbicide, might be contaminated.

### **4.7.3 Labelling**

The requirements regarding the labelling of pesticides and herbicides are laid down in legislation and strictly applied to both imported, and locally produced chemicals. Any pesticide or herbicide shall only be used in accordance with the instructions on the original label. (See guidelines for the RSA classification code of agricultural and stock remedies and associated labelling practices).

### **4.8 Training**

All workers using pesticide and herbicide formulations shall be trained by a registered PCO. Training programmes shall cover all aspects of pesticide and herbicide management.

### **4.9 Mixing**

This is possibly the most hazardous phase of the use of pesticides and herbicides, since the employee is exposed to the concentrate. In any particular situation, only competent trained personnel shall be responsible for mixing. They shall be thoroughly conversant with the hazards, and provided with the proper facilities, for dealing with accidental contamination.

### **4.10 Application**

Personal protective equipment is compulsory. The choice of particular items of equipment will depend on the hazardous nature of the pesticide/herbicide and the physical form in which it is being handled. Any consideration of protective equipment shall include not only the provision, but also adequate cleansing, maintenance and replacement, of the equipment. Where climatic conditions preclude the use of some types of protective equipment, three other principles of protection can be applied, i.e. protection by distance, protection by time, protection by change of working method.

**Protection by distance:** involves modifications of the equipment used for applications, so that the person is as far away as possible from the pesticide and herbicide itself, bearing in mind the likely routes of absorption of a specific compound.

**Protection by time:** involves limitation of hours of work. The suitability of this method depends on whether the pesticide and herbicide is readily excreted, or whether it is cumulative.

**Protection by change of working method:** involves a reconsideration of the whole operation. Pesticides and herbicides differ from other industrial processes in that they can be applied from the ground, or the air. Changes of method on the ground depend largely on the choice of equipment and the physical nature of the pesticide and herbicide to be applied.

Pesticides and herbicides can also be applied from the air as liquids, dusts or granules. Liquids may be sprayed from very low altitudes, frequently as fine droplets of concentrated formulations. Drift is a problem particularly with liquids and dusts. Aerial application is an economical way of treating large tracts of land, but entails special hazards to pilots and to workers on the ground.

Use up left-over spray mix, or tank rinsing fluid, by lightly spraying areas already sprayed. Do not empty tanks in one spot. Pesticides and herbicides shall not be transferred to other containers, except for application purposes.

Return all empty pesticide or herbicide containers to the stores, or the supplier. Where it is not possible or economically feasible to return the containers, they shall be rendered useless by cutting the container, or punching holes in it. Returned containers and those rendered useless, shall be recorded in the Herbicide Register. Containers rendered useless shall be kept on site, or disposed of in accordance with the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act.

#### **4.11 Public health measures**

When pesticides and herbicides are used, every reasonable effort shall be made to avoid the contamination of water supplies. This not only concerns the actual application (when there may be immediate contamination), but shall also include the consideration of remote contamination by run-off through rainfall on recently treated areas.

While pesticides and herbicides in natural watercourses may be diluted to such a degree that the contaminated water may not be hazardous in itself, the effect on fish, water, plants used as food and grown in the watercourses, and on wild life as a whole, as a result of bioaccumulation, shall not be overlooked.

#### **4.12 Treatment of spillages**

Spillages of pesticides and herbicides, at any stage of their storage or handling, shall be treated with great care. All spills shall be managed and re-habilitated in accordance with the chemical label and the associated instructions, as well as in line with group specific incident investigation procedures/processes. Spills should be reported in line with group reporting requirements.

#### **4.13 Hygiene (Refer to annex B)**

Where a pesticide or herbicide is of moderate or higher hazard and can be readily absorbed through the skin, special precautions are necessary. In some situations, where workers might become accidentally contaminated with large quantities of concentrate, a shower or bath shall be provided in addition to the usual washing facilities. Special arrangements for cleaning clothing and overalls are necessary. They shall not be left for the worker to wash at home. These facilities shall also be available when contractors do contract work for Eskom.

Contractors are responsible for providing personal protection equipment to all employees. Protective clothing shall be provided to all Eskom operators by the business unit and:

- All exposed persons shall wash/shower following application of hazardous chemical substances
- All clothing shall be changed after each shift, as appropriate, and retained for washing by the employee

Since pesticides and herbicides are often applied outdoors, depending on the chemical used, special care shall be taken to provide washing facilities at the workplace, even though this may be in remote areas. Workers shall be instructed to use these, rather than wash themselves in canals and rivers, the water from which may be subsequently used for other purposes. The washing water provided shall be disposed of with care. Smoking, eating and drinking before washing shall be prohibited when any pesticide or herbicide is being handled or used.

#### **4.14 Medical and first-aid facilities**

Medical and first aid needs to align with label specifications and MSDS's for specific substances used. If there is an antidote for a specific pesticide or herbicide which can be readily used as a first-aid measure, it shall be readily available to workers, who shall be instructed in the method of its application. The nature of the chemical used shall be well defined, so that the doctors can obtain specific antidotes where these are applicable, and be on the look-out for cases of poisoning.

Strict medical surveillance, including biological monitoring of workers exposed to concentrates of pesticides and herbicides, shall be conducted according to their occupational risk exposure profile ,as determined from their job specifications and as prescribed in the HCS regulations (Regulations for Hazardous Chemical Substances) of the OHS Act.

Information sheets on the medical management of exposed workers shall be compiled for each type of chemical used, and made available to health care service providers who may be consulted in the event of over-exposure.

## **4.15 Requirements for a pesticide/herbicide store (Refer to annex A)**

### **4.15.1 Location**

When choosing a site for a new store, avoid close proximity to offices, housing, schools, hospitals, shopping areas, kitchens, manufacturing or storage premises, or other populated areas. Preference shall be given to isolated locations. Avoid areas prone to flooding, or areas used for water catchment. In the case of existing stores, an assessment shall be made, based on compliance with the requirements of this standard, whether continued use of the store can be justified. All new stores shall only be constructed once an appropriate environment impact assessment has been undertaken.

### **4.15.2 Site access**

The site shall provide suitable access for the loading and unloading of delivery vehicles. Ideally the building should stand alone, with a space of at least 10 m between it and surrounding property.

### **4.15.3 Drainage**

The building shall be on a site that minimizes the risk of contaminated water reaching water sources, ground water reserves, or public drainage systems.

### **4.15.4 Buildings**

Rooms used for storage shall be soundly constructed, and be equipped with automatic extraction fans and secure locks. Pesticides and herbicides shall be stored on shelves or pallets.

### **4.15.5 Lighting**

Lighting levels shall allow for the routine inspection of stored products, and provide sufficient light for easy reading of product labels.

Artificial lighting shall be installed above aiseways and at least 1 m above the topmost stored product, to prevent damage during mechanical handling operations.

### **4.15.6 Ventilation**

The storeroom shall be well ventilated. Natural ventilation shall be provided by vents located in the upper and lower walls and in the roof. The lower vent shall be above bund level. All vents shall be designed or protected, to prevent entry by any animal life. Ensure good air circulation in storerooms and ensure the installation of automatic extractor fans.

### **4.15.7 Security**

The store shall be secured to prevent unauthorised access.

### **4.15.8 Storage hazards**

Knowledge of product hazards is an essential pre-requisite for the safe storing of all chemicals. During the storage of pesticides and herbicides, hazards are likely to be encountered with products which are flammable, toxic, corrosive, reactive, or which may be oxidizing agents. Floors shall be kept clear and where re-packing is done in storage rooms, any spillages shall be cleaned up carefully according to 4.12. All pesticides and herbicides shall be clearly identified.

Chemical compounds that could interact with other compounds, shall be stored separately. Some compounds react with other chemicals or with air, and this shall be taken into account when planning storage facilities. Examples of this reaction are, cyanide salts which react with acids to produce hydrogen cyanide gas, and dichlorvos which vaporizes on contact with air.

#### **4.15.9 Flammable substances**

These are substances which can produce flammable vapour/air mixtures, and are therefore potential sources of fire or explosion. Flammable substances shall be clearly marked.

#### **4.15.10 Flammable liquids**

Classification of flammable liquids is determined by their flash point. This is the lowest temperature at which the substance will form a flammable vapour/air mixture. Liquids with a flash point of 55 °C and below, are considered flammable. Flammable liquids shall be clearly marked.

#### **4.15.11 Flammable solids**

These are readily ignitable solids or materials that cause fast propagation of a fire once ignited. Flammable solids shall be clearly marked.

#### **4.15.12 Toxic pesticides and herbicides**

These materials may be harmful or dangerous to man by way of ingestion, inhalation or skin absorption. Skin contact is the most common route by which poisoning can occur. Many chemicals can readily pass through intact skin into the body. Inhalation of dust and vapours can produce a particularly fast reaction due to the ease with which such contaminants can enter the bloodstream through the lungs. Ingestion is perhaps the least common cause of accidental poisoning, and is probably caused by eating, drinking and smoking without having first washed the hands. Toxic pesticides and herbicides shall be clearly marked.

#### **4.15.13 Corrosive substances**

Such substances will attack skin or materials such as wood or metal, therefore leakage can corrode other packages and structures. Corrosive substances shall be clearly marked.

#### **4.15.14 Oxidizing agents**

Oxidizing agents will increase the rate at which a fire can develop. They may also react violently with other stored materials, and can be the cause of spontaneous ignition. Oxidising agents shall be clearly marked.

#### **4.15.15 Substances that are dangerous when wet**

Within the range of common pesticides and herbicides, some dithiocarbamates are known to react adversely with moisture to produce carbon disulfide, a toxic and extremely flammable gas. Spontaneous ignition of this group of chemicals is also known to occur. Such chemicals shall be clearly marked.

#### **4.15.16 Hygiene, personal safety and housekeeping**

Good standards of hygiene shall be maintained, and floors and shelves shall be regularly and systematically cleaned, preferably using an industrial vacuum cleaner. Washing facilities for employees shall be provided and, where food and drinks are consumed on the premises, a separate room shall be set aside for this purpose. Workers shall be instructed to wash their hands before eating, drinking or smoking.

**Annex A**  
(normative)

**Checklist for the handling, storage, use and disposal of pesticides and herbicides**

Question	Yes	No	Comments
<b>Location and buildings</b>			
Does the store satisfy the requirements relating to the location? If NO, in what respects does it fail? ..... ..... .....			
Does the store satisfy the stipulations for site access?			
Does the store fulfil requirements regarding: construction materials; floor surface; internal fire break walls; roof covering and ventilation; head and smoke release; drainage; and local fire regulations? If NO, in what respects does it fail? ..... ..... .....			
Is the door sill or ramp at least 100 mm high?			
What additional system for the containment of fire-fighting water exists? none; underground retention pit; external containment wall; and other? Describe: ..... ..... .....			
What is the overall capacity of containment?			
Is this sufficient to contain the expected volume of fire-fighting water?			
Is the store well ventilated?			
Are the pesticides and herbicides in-store appropriate for their intended use?			

**Annex A**  
(continued)

<b>Question</b>	<b>Yes</b>	<b>No</b>	<b>Comments</b>
Are all vents above door sill or ramp height?			
Is there sufficient light? Is it properly positioned?			
Is the store fitted with a lightning conductor?			
Are sufficient emergency exits provided? Do these conform to OHS Act requirements?			
If any office or amenity accommodation exists in the structure,  is it adequately segregated from the store; has it an exit other than through the store?			
<b>Store management</b>			
Does the store have adequate precautions against arson and burglary?			
Do these precautions include:  alarm systems; burglar-proof gates and windows; fenced-in premises; 24 h guard service; and perimeter lighting?			
Are all staff adequately trained with respect to:  knowledge of product hazards; safe operating procedures; and emergency procedures?			
Is a supervisor present during receipt and dispatch of all goods to check documents, package integrity, etc.?			
Are material safety data sheets available for all products?			
Is an outline of the storage plan of the materials in each store kept up to date?			
Is the store divided into distinctly separate storage bays?			
Are the racks used in the store non-combustible?			
Are stock records kept up to date?			
Does this guarantee knowledge of the quantity and location of the goods any time?			

**Annex A**  
(continued)

Question	Yes	No	Comments
<b>Hygiene and personal safety</b>			
Are standards of hygiene and housekeeping adequate?			
Are personnel issued with protective clothing, protective gloves and respiratory protective equipment?			
Are these routinely worn when handling products?			
Does protective equipment exist on the premises for handling spills?			
Are adequate first aid materials and facilities provided and are staff familiar with their use?			
<b>Spillages</b>			
Is there a written authorised procedure for dealing with spillages?			
Are spilled dry products removed by vacuum cleaner?			
Is absorbent material available?			
Are records of spillages kept?			
<b>Waste disposal</b>			
Are wastes disposed of in a safe manner?			
Have the methods of disposal been approved by the authorities?			
Is the disposal of emptied containers and the re-use of equipment satisfactorily controlled?			
<b>Fire and environmental protection</b>			
Is the non-smoking rule in the store strictly enforced?			
Are products stored at a safe distance from light fittings, electrical equipment and auxiliary equipment?			
Is the store included in the safety representative's checklist?			
Are records of accidental poisoning kept?			
Are all pest control operators and workers appropriately trained?			
Are records of medical surveillance of workers available? Does each worker have a job-specification which lists the chemicals to which he is exposed, and quantifies such personal exposure concentrations, in relation to the OELs			

**Annex A**  
(concluded)

<b>Question</b>	<b>Yes</b>	<b>No</b>	<b>Comments</b>
Is disposal of empty containers recorded satisfactory?			
Is record keeping satisfactory?			
Availability of lists of approved pesticides and herbicides used on-site?			
Register of incident / work performed?			
Availability of material safety data sheets?			
Are pesticides and herbicides handled and applied in a safe manner?			
Are containers clearly marked?			

**Annex B**  
(normative)

**Checklist for evaluation**

**1 Exceptional**  
**2 Commendable**

**3 Acceptable**  
**4 Unsatisfactory**

Checklist	Score	Action
1 Checklist of relevant legislation?		
2 Personal protective equipment <ul style="list-style-type: none"> <li>• provided?</li> <li>• used?</li> <li>• Used correctly?</li> </ul>		
3 Training of pest control operators and workers?		
4a) Job specification and personal exposure concentrations?  4b) Medical surveillance and biological monitoring records?  4c) Exposure records and reporting procedures?		
5 Inspection system for use and storage?		
6 Availability of job safety procedures?		
7 Safe disposal of empty containers?		
8 Availability of material safety data sheets?		
9 Personal hygiene of pesticide and herbicide users?		
10 Availability of approved list of pesticides and herbicides?		
<b>NOTES</b>		

**Annex C**  
(normative)

**Policy guides**

**C1 Liability**

During the chemical control of bush-invader plants or weeds, the SBU is responsible in the following three instances:

- legal obligation;
- Eskom policy and guides; and
- moral obligation towards land owners and the public.

**C1.1 Legal obligation**

The following Acts directly or indirectly, regulate the selling, safety and use of weed-killers:

- Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act (Act No. 36 of 1947).
- Foodstuffs, Cosmetics and Disinfectants Act (Act No. 54 of 1972).
- Hazardous Substances Act (Act No. 15 of 1973).
- Environment Conservation Act (Act No. 73 of 1989).
- Conservation of Agricultural Resources Act (Act No. 43 of 1983).
- Forest Act (Act No. 122 of 1984).
- Water Act (Act No. 54 of 1956).
- Mountain Catchment Areas Act (Act No. 63 of 1970).
- National Parks Act (Act No. 57 of 1976)/
- Sea Fisheries Act (Act No. 58 of 1973).
- OHS Act (Act 85 of 1993).
- Provincial Ordinances.

**Annex C**  
(concluded)

**C.1.2 Eskom policies and guides**

ESKADABG4: *Directive for Medical surveillance*

ESKPBAAD6: *Environmental Management Policy*

ESKPBAAD4: *Herbicide management*

ESKPVAAO5: *Occupational hygiene risk assessment.*

*SASOM GUIDELINE - Medical and Environmental Surveillance Guidelines*

Legal documents.

**C.1.3 Moral obligation**

Every Eskom employee has a moral obligation to the environment, his fellow citizens and all future generations to protect and conserve the environment.

He is also morally obliged to protect his employer, Eskom, against negative publicity, and the danger and risk of financial losses.

**C.2 Safety risk management**

Eskom maintains a "right-to-know" policy. It is therefore every supervisor's responsibility to keep his sub-ordinates fully informed on the following:

- precautions to be taken when using dangerous substances; and
- the risk attached to the substances concerned, and the handling of these substances.