Eskom	**Occupational Hygiene Hazard Identification and Risk Assessment**	

Title: **Occupational Hygiene Hazard Identification and Risk Assessment**

Document Identifier: **240-114036246**

Alternative Reference Number: **N/A**

Area of Applicability: **Eskom Holdings SOC Ltd**

Functional Area: **OHS**

Revision: **3**

Total Pages: **20**

Next Review Date: **July 2026**

Disclosure Classification: **Controlled Disclosure**

Compiled by	Functional Responsibility	Authorised by
MP Monyela	**KT Modiole**	**M. Moahlodi**
Senior Advisor Occupational Hygiene	**Middle Manager: OHS Sustainability Systems**	**Senior Manager OHS Sustainability Systems**
Date: 07 July 2021	Date: 07 July 2021	Date: 07 July 2021

Content

Figures

Tables

1. Introduction

This document is an instruction for the management of Hazard Identification and Risk Assessment (HIRA) of Potential Exposure to Occupational Hygiene Stress Factors, as part of the issue-based/task-specific assessments, as required. This complements the baseline risk assessment, and both types of assessment must be done.

2. Supporting Clauses

2.1 Scope

This Work Instruction for Hazard Identification and Risk Assessment (HIRA) of Potential Exposure to Occupational Hygiene Stress Factors will provide guidance for conducting HIRAs across Eskom Holdings SOC Ltd.

2.1.1 Purpose

The purpose of this instruction is to set a standard for Hazard Identification and Risk Assessment (HIRA) of Potential Exposure to Occupational Hygiene Stress Factors for Eskom Holdings SOC Ltd.

2.1.2 Applicability

This document is applicable to all Eskom Holdings SOC Ltd areas, where Hazard Identification and Risk Assessment (HIRA) of Potential Exposure to Occupational Hygiene Stress Factors is required and excludes activities conducted in accordance with the Mine Health and Safety Act 29 (1996).

2.1.3 Effective date

This OH-HIRA instruction is effective from the date of authorisation.

2.2 Normative/Informative References

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

2.2.1 Normative

[1] 240-62582234 OHS Roles and responsibilities and Statutory Appointments.

[2] 240-75567900 Manual for Internal Quality Assurance Management of the Eskom Occupational Hygiene Approved Inspection Authority.

[3] 32-520 Occupational Health and Safety Risk Assessment Procedure.

[4] Asbestos Abatement Regulations (2020).

[5] ISO 45001 Occupational Health and Safety Management Systems – Requirements.

[6] ISO 9001 Quality Management Systems.

[7] Occupational Health and Safety Act, 1993 (Act 85 of 1993).

[8] SANAS 17020:2012 Accreditation of Inspection Bodies.

2.2.2 Informative

None.

2.3 Definitions

Term	Definition
Action Level	Means one half (50%) of the permissible exposure limit as defined by the National Institute for Occupational Safety and Health (NIOSH) Technical Information. The action level is the point at which certain provisions must be initiated, such as periodic employee exposure measurements and training.
Asbestos dust	Means airborne or settled dust, which contains or is likely to contain regulated asbestos fibres
Asbestos Risk Assessment	Means a risk assessment and risk categorisation of potential exposure to asbestos dust (fibres)
Baseline Risk Assessment	Baseline risk assessment refers to the OHS hazards and risks that are identified and assessed before the inception of a new project and commencement of operations. The baseline risk assessment shall include both routine and non-routine tasks.
Competent person (Asbestos Risk Assessment)	Means a person who a) Has, in respect of the work or task to be performed, the required knowledge, training and experience and, where applicable, qualifications specific to asbestos work or related tasks: Provided that, where appropriate qualifications and training are registered in terms of the NQF Act, 2008 (Act 67, 2008), those qualifications and that training must be regarded as the required qualifications and training, and b) Is familiar with the Act and the applicable regulations made under the act.
Competent person (OH-HIRA)	Means a person who in respect of conducting Hazard Identification and Risk Assessment (HIRA) for Occupational Hygiene stress factors, has: c) at least two years experience in conducting Risk Assessment. d) successfully completed training as determined by Sustainability Systems OHS and/or EAL, e) the required knowledge as per the OHS Act and the relevant regulations and f) the knowledge (familiarity) of this work instruction
Consequence	Outcome of an event/exposure affecting objectives.
Control	Measure that modifies risk. Controls include any process, policy, device, practice, or other action that modifies risk.
Event	Occurrence of, or change in, a particular set of circumstances.
Exposure	External environment in which the organisation seeks to achieve its objectives.

Term	Definition
Frequency	Measure of the likelihood of an event, expressed as a number of events or outcomes per defined unit of time.
Hazard	Potential source of harm.
Hazard identification	Process of finding, recognising, and describing hazards.
Issue based risk assessment	A risk assessment that is done for activities that are not assessed in the baseline risk assessment, due to the circumstances surrounding these activities such as variation from day to day. Issue-based risk assessment looks at assessing the risks attached to each activity and hazard; for instance, if chemicals were identified as part of the baseline risk assessment, the task-specific risk assessment needs to assess and analyse each chemical individually..
Likelihood	Chance of something happening.
Led by (As referred to in 32-520 (3.1.4))	The health risk assessment shall be conducted for all activities, and the process shall be **led by** Occupational Hygiene (OH) professionals as referred to in 32-520 implies that where the risk assessment was not successfully completed by the Safety, Health and/or Environment professional, it shall be referred to an Occupational Hygiene professional as illustrated on Figure 1 on page 15.
Monitoring	Continuous checking, supervising, critically observing, or determining the status in order to identify change from the required or expected level of performance.
Occupational Exposure Limit (OEL)	Means a limit value set by the Minister for a stress factor in the workplace as revised from time to time by notice in the Government Gazette;
Probability	Measure of the chance of occurrence expressed as a number between 0 and 1, where 0 is impossibility, and 1 is absolute certainty.
Responsible Manager	A manager of a department, section or operating / business unit who has been appointed as part of the Eskom delegation of authority process with the aim to assist the applicable 16(2) assigned person in executing his / her duties in terms of the Occupational Health and Safety Act.
Risk	Effect of uncertainty on objectives. A risk with a negative consequence can be the result of human interaction with a hazard.
Risk analysis	Process to comprehend the nature of risk and to determine the level of risk.
Risk assessment	Overall process of hazard identification, risk analysis, and risk evaluation.
Risk evaluation	Process of comparing the results of the risk analysis to risk criteria to determine whether the level of risk is acceptable or tolerable.
Risk management	Coordinated activities to direct and control an organisation with regard to risk.

Term	Definition
Risk matrix	Tool for ranking and displaying risks by defining ranges for the consequences and likelihood.
Risk profile	Description of a set of risks.
Standard	Means a minimum or maximum limit value set by the Minister for a stress factor in the workplace or set by South African National Standard or international best practices as approved by the relevant committees as revised from time to time.

2.4 Abbreviations

Abbreviation	Explanation
OHS Act	Occupational Health and Safety Act, Act 83 of 1993
ACM	Asbestos Containing Material
AIA	Approved inspection authority
HCS	Hazardous chemical substances
HIRA	Hazard Identification and Risk Assessment
HRA	Health Risk Assessment
NQF	National Qualifications Framework
OH	Occupational Hygiene
OREPs	Occupational Risk and Exposure Profiles
WI	Works Instruction

2.5 Roles and Responsibilities

All occupational hygiene and safety practitioners are to ensure that they implement the requirements of this work instruction.

2.6 Related/Supporting Documents

[1] 32-520 Occupational Health and Safety Risk Assessment Procedure.

[2] HRA Assessment Form.

3. OH-HIRA Process

3.1 Who may conduct an occupational hygiene Hazard Identification and Risk Assessment?

Any person who is declared competent in conducting risk assessments or has attended training on conducting risk assessments. Proof of training or declaration of competency shall be available on request.

3.2 Hazard Identification

Identify the hazards using the categories listed in Figure 1, and list the implications and causes of such hazards. Describe the risks in terms of an event, changes in a situation, circumstances, and how these lead to consequences.

Record the identified hazards in the Occupational Hygiene Hazard Identification and Risk Assessment (Table 1), with the following information:

- The OH stressor (hazard) to which an employee may be exposed.
- What effects the OH stressor (hazard) can have on an employee if he/she is exposed.
- Where the OH stressor (hazard) may be present and in what physical form it is likely to be.
- The route of intake by which, and the extent to which, an employee can be exposed.
- The nature of the work, process, and any reasonable deterioration in, or failure of, any control measures.

3.2.1 Walk-through Inspection

The purpose of the initial survey, called the walk-through inspection, is to systematically gather information to judge whether a potentially hazardous situation exists and whether monitoring is required. A competent person begins the walk-through survey with an opening meeting that can include representatives of management, employees, supervisors, occupational health, and union representatives.

This multidisciplinary collaboration can positively impact the success of the survey and any subsequent monitoring initiatives by creating a team of people who communicate openly and honestly with one another and understand the goals and scope of the inspection. Workers must be involved and informed from the beginning to ensure that cooperation, not fear, dominates the investigation.

During the meeting, requests are made for process flow diagrams, plant layout drawings, past inspection/monitoring reports, production schedules, equipment maintenance schedules, documentation of personal protection programmes, and statistics concerning the number of employees, shifts, and health complaints. All hazardous materials used and produced by an operation are identified and quantified.

A chemical inventory of products, by-products, intermediates, and impurities is assembled, and all associated material safety data sheets are obtained. Equipment maintenance schedules, age, and condition are documented because the use of older equipment may result in higher exposures due to the lack of controls.

After the meeting, the occupational hygiene or safety practitioner performs a visual walk-through survey of the workplace, scrutinising the operations and work practices, with the goal of identifying potential occupational stresses, ranking the potential for exposure, identifying the route of exposure, and estimating the duration and frequency of exposure.

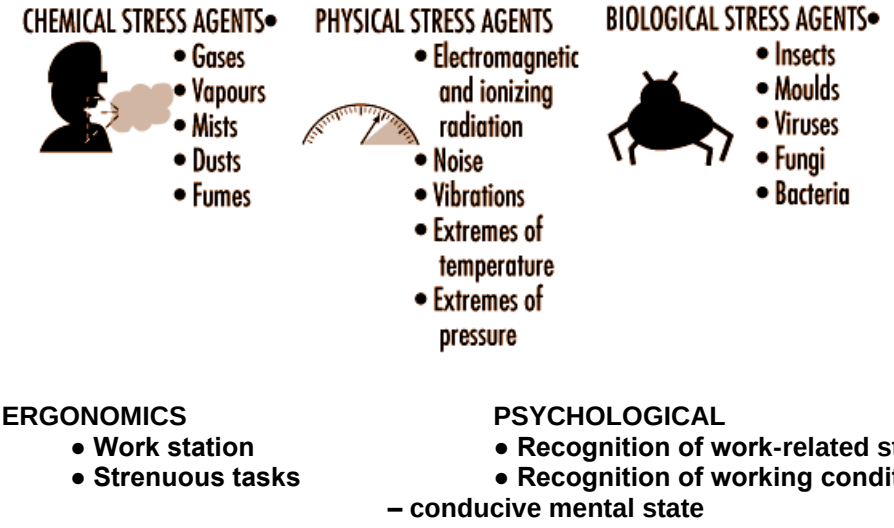

Figure 1: Occupational hygiene stressors (Source: *Encyclopedia of OH&S*, 4th edition)

3.3 Description of chemical stressors

3.3.1 Asbestos

Asbestos is a highly heat-resistant fibrous silicate mineral that can be woven into fabrics or added as a boding or insulating material to fire-resistant and insulating materials.

There are six types of asbestos, all of which are composed of long and thin fibrous crystals, each fibre being composed of many microscopic "fibrils" that can be released into the atmosphere by abrasion and other processes. Asbestos is an excellent electrical insulator and is highly heat-resistant.

According to the Asbestos Abatement Regulations, Asbestos means the following fibrous silicates:

a) Asbestos actinolite, CAS No. 75536-66-4.

b) Asbestos grunerite (amosite), CAS No. 12172-73-5.

c) Asbestos anthophyllite, CAS No. 77536-67-5.

d) Chrysotile, CAS No. 12001-29-5 or CAS No. 132207-32-0.

e) Crocidolite, CAS No.12001-28-4.

f) Asbestos tremolite, CAS No. 77536-68-6; and.

g) Any mixture containing these fibrous silicates.

3.3.2 Gases

Gases are air-like fluid substance which expands freely to fill any space available, irrespective of its quantity. They can be changed to liquid or solid state only by the combined effects of increased pressure and decreased temperature. Handling gases always implies risk of exposure, unless they are processed in closed systems.

Gases in containers or distribution pipes might accidentally leak. In processes with high temperatures (for example, welding operations and exhaust from engines), gases will be formed.

3.3.3 Vapours

Vapours are the gaseous form of substances that are normally in the liquid or solid state at room temperature and normal pressure. When a liquid evaporates, it changes to a gas and mixes with the surrounding air. A vapour can be regarded as a gas, where the maximal concentration of a vapour depends on the temperature and the saturation pressure of the substance. Any process involving combustion will generate vapours or gases. Degreasing operations might be performed by vapour phase degreasing or soak cleaning with solvents. Work activities such as charging and mixing liquids, painting, spraying, cleaning, and dry-cleaning might generate harmful vapours.

3.3.4 Liquids

Liquids are substances that flow freely but is of constant volume, having a consistency like that of water or oil. It may consist of a pure substance or a solution of two or more substances (for example, solvents, acids, alkalis). A liquid stored in an open container will partially evaporate into the gas phase. The concentration in the vapour phase at equilibrium depends on the vapour pressure of the substance, its concentration in the liquid phase, and the temperature. Operations or activities with liquids might give rise to splashes or other skin contact, besides harmful vapours.

3.3.5 Dusts

Dusts consist of inorganic and organic particles, which can be classified as inhalable, thoracic, or respirable, depending on particle size. Most organic dusts have a biological origin. Inorganic dusts will be generated in mechanical processes such as grinding, sawing, cutting, crushing, screening, or sieving. Dusts may be dispersed when dusty material is handled or whirled up by air movements from traffic. Handling dry materials or powder by weighing, filling, charging, transporting, and packing will generate dust, as will activities such as insulation and cleaning work.

3.3.6 Fumes

Fumes are solid particles vaporised at high temperature and condensed to small particles. The vaporisation is often accompanied by a chemical reaction such as oxidation. The single particles that make up a fume are extremely fine, usually less than 0.1 µm, and often aggregate in larger units. Examples are fumes from welding, plasma cutting, and similar operations.

3.3.7 Mists

Mists are suspended liquid droplets generated by condensation from the gaseous state to the liquid state or by breaking up a liquid into a dispersed state by splashing, foaming, or atomising. Examples are oil mists from cutting and grinding operations, acid mists from electroplating, acid or alkali mists from pickling operations, or paint spray mists from spraying operations.

The HIRA shall consider, but not be limited to, the type, health effects, physical form, and route of entry of the stressor(s), exposure patterns, and the effectiveness of the existing controls.

3.3.8 Ergonomic

Ergonomic hazards are physical factors within the environment that harm the musculoskeletal system. Ergonomic hazards include factors such as repetitive movement, manual handling, workplace/job/task design, uncomfortable workstation height, and poor body positioning.

3.3.9 Psychological

Psychological hazards arise from poor work design, organisation, and management, as well as a poor social context of work, and they may result in negative psychological, physical, and social outcomes such as work-related stress, burnout, or depression.

3.4 Route of entry into the body

It is of crucial importance to check the material safety data sheet (MSDS) for the hazard to identify its potential route/s of entry into the body. Special attention must be given to substances which have different or multiple routes of entry, which are depending on the states of the substance (whether it is a gas, liquid, or solid) as affected by temperature.

Substances such as petrol, for instance, have a low volatisation temperature and can release vapour at room temperature. Furthermore, petrol may contain substances which can also be absorbed through skin contact. The whole cycle of the hazard must therefore be considered to establish any change in temperature which may result with a change in the state. Heating or chemical processes may also result with the release of fumes, gases, or vapours. Activities such as welding are known to replease gases and fumes while activities such as lead-acid-battery charging can release acid vapours and lead fumes.

Route of entry for those liquids that are able to pass the skin barrier would normally be skin but due to volatilisation, volatile organic compounds would vapourise changing the hazard’s route of entry from skin to inhalation or even both skin if there is skin contact as well.

3.5 Exposure groups

All persons who have the potential to be exposed to the hazard must be identified. At this stage, the persons may be grouped in accordance to homogeneous/similar exposure groups based on the areas and duties that they perform. Homogeneous exposure group (HEG) table may be used to record individuals with similar exposure and the assessment may be continued using the HEG name rather than the whole list of individuals that were listed as having similar exposure levels. It is important that HEG is not completed using job titles (occupations) unless all the employees listed in that job-title (occupation) performs the same task at similar areas and their exposure patterns are expected to be the same.

Employees which are under special placements, such as a Technical Official that only does truck driving, must be clearly excluded from the HEG of Technical Officials.

For asbestos risk assessment, use tables 5 to 8

3.6 Exposure pattern

It is important to identify the area were the OH Stressor (hazard) may be present and how often are the personnel exposed and for how long is each exposure incident. This helps to estimate the exposure levels which will be required to conduct an accurate risk assessment and rating. Where exposure varies from day to day, it is important to take the worst case scenario into consideration when drafting the exposure patterns.

For asbestos risk assessment, use tables 5 to 8

3.7 Assessment and analysis of risk

This is a step where risks are analysed in order to determine the effectiveness of existing control measures and implement further control measures to minimise the consequences of those risks for the health and safety of employees and the environment.

Both qualitative and quantitative techniques can be used to assess and analyse risks, for example, qualitative incident investigation reports or quantitative data/measurements.

If asbestos is identified, then an asbestos risk assessment must be carried out immediately, as far as is reasonably practicable, by a competent person* and thereafter at intervals not exceeding 24 months, after consultation with the relevant health and safety representatives or health and safety committee. This risk assessment shall also be done for asbestos repair work.

For asbestos risk assessment, use tables 5 to 8.

* - See definition

3.8 Risk categorisation (rating) and evaluation of existing controls

Through walk-throughs, inspections, records, interviews, and observations, existing controls are recorded.

Controls will include systematic controls and elimination, engineering, administrative, or personal protective equipment controls.

The risk is categorised according to the consequences of exposure to the relevant hazard and the likelihood of employees suffering health effects due to exposure to these risks. The consequence rating (see Table 1) is based on the severity of the harm or damage that could occur. The likelihood rating (see Table 2) is based on the extent of exposure or dose, which considers frequency, duration, and the concentration of the hazard.

The risk rating is then determined by identifying the point of intersection between the consequence and likelihood scores (see Table 3). As shown in Table 3, the risks are classified as high, medium, and low.

The asbestos risk is categorised according to the consequences of exposure to the relevant hazard and the likelihood of employees suffering health effects due to exposure to these risks. The consequence rating (see Table 5) is based on the severity of the harm or damage that could occur and takes into account the health impacts of asbestos and the number of persons potentially exposed to asbestos at the work place.

The likelihood rating (see Table 6) is based on the extent of exposure or dose, which considers frequency, duration, and the concentration of the hazard and also takes into account the potential for damage, or disturbance of the asbestos containing material at the workplace, also by maintenance activities, potential incidents, normal occupant activities and the condition of asbestos-containing material, including state of deterioration.

The asbestos risk assessment for repair work must include the following:

a) The assessed risk of any asbestos exposure relating to each job step;

b) the controls necessary to reduce the risk of exposure to as low as is reasonably practicable;

c) an indication whether environmental air monitoring is required; and

d) if exposure risk indicates that the OEL may be exceeded an indication that the employer must obtain the services of an occupational medical practitioner to fulfil the requirements of regulation 17(1)(b).

The asbestos risk assessment for asbestos removal work as part of the plan of work must consider the following, over and above the contents of the previous paragraph:

a) the risk assessment is carried out in accordance with regulation 12(2)

b) the potential exposure of persons other than employees;

c) the potential contamination of the air, ground and water;

d) the thorough decontamination of employees and the workplace;

e) the transportation of asbestos-containing materials and asbestos waste; and scenarios. Emergency.

The asbestos risk assessment must be endorsed and reviewed by an approved inspection authority at intervals not exceeding six years

Table 1: Consequence Criteria (Excluding Asbestos)

Consequence rating	Description
1	No injuries or health effects (near misses)
2	First-aid treatment case and temporary discomfort case
3	Medical treatment case; occupational disease with reversible / non-permanent effect
4	Lost-time injury; irreversible health effects / occupational disease with permanent consequence
5	Fatality or life threatening health effects.
6	Multiple fatalities.

Table 2: Likelihood Criteria (Excluding Asbestos)

Category	Descriptor	Criteria	Probability of exceeding OEL
A	Highly unlikely	• More than a "100 year event" • Exceptionally unlikely, even in the long term future • < 5% probability	No exposure (or rare exposure < 10% of the OEL)
B	Unlikely	• Could occur in "years to decades", or • May occur but not anticipated, or • ≥ 5% and < 20% probability	Low exposure (< 10% of the OEL)
C	Possible	• Could occur within "months to years",or • May occur shortly but a distinct probability it won't, or • ≥ 20% and < 70% probability	Moderate exposure (chronic exposure between 10% and 50% of OEL or acute exposure between 50% and 100% of the OEL)
D	Likely	• Could occur within"weeks to months",or • Balance of probability will occur, or • ≥ 70% and < 90% probability	High exposure (chronic exposure > OEL, or exposure exceeding OEL-STEL)
E	Highly likely	• Could occur within "days to weeks", or • Impact is imminent, or • ≥ 90% probability	Very high exposure (chronic exposure > 2 x OEL or exposure exceeding OEL-C)

Table 3: Risk Matrix

Consequences						
	6	I	I	I	I	I
	5	II	II	II	I	I
	4	III	III	II	I	I
	3	IV	III	II	II	I
	2	IV	IV	III	II	II
	1	IV	IV	III	III	III
		A	***B***	***C***	***D***	***E***
		Likelihood				

Table 4: Risk Priority

Priority	Risk ranking	Timing of approval of a treatment plan	Action required
I	Very high	Short term. Normally within 1 month.	Immediate action required, and these risks to be captured on IRM system.
II	High	Medium term. Normally within 3 months.	Strong mandatory action required, and these risks to be captured on IRM system.
III	Medium	Normally within 1 year	Action required, possibly at administrative level.
IV	Low	Ongoing control as part of a management system.	Minor or no action required.

Asbestos Risk Assessment Tables:

Table 5: Consequence Criteria (Health Impacts)

Consequence rating	The number of persons potentially exposed at the Workplace (Use one)		Description
	Asbestos workers	ACM building occupants	
1	0	0	No exposure
2	0	0	No exposure
3	0	0	No exposure
4	1 to 10	1 to 50	Potential Occupational disease with non-reversible / permanent effect for 1 – 10 Asbestos workers / 1 – 50 ACM building occupants
5	11 to 25	51 to 99	Potential Occupational disease with non-reversible / permanent effect for 11 – 25 Asbestos workers / 51 – 99 ACM building occupants
6	26 and above	100 and above	Potential Occupational disease with non-reversible / permanent effect for 26+ Asbestos workers / 100+ ACM building occupants

Table 6: Likelihood Criteria (Select Worst-Case)

Category	Descriptor	Potential for damage, or disturbance	The condition of asbestos-containing material, including state of deterioration
A	Highly unlikely	• **Negligible potential** for damage, or disturbance of the asbestos containing material during work or maintenance.	**Excellent condition:** Encapsulated non-friable asbestos containing material or Enclosed and/or isolated friable ACM
B	Unlikely	• **Low potential** for damage, or disturbance of the asbestos containing material during work or maintenance.	**Good condition:** No visible damage on non-friable asbestos containing material. No disturbance or vibrations.
C	Possible	• **Medium potential** for damage, or disturbance of the asbestos containing material during work or maintenance.	**Slight damage:** A few visible scratches or surface marks on non-friable ACM; broken edges on ACM. Potential for disturbance of friable asbestos enclosure by employees or vibrations.
D	Likely	• **High potential** for damage, or disturbance of the asbestos containing material during work or maintenance.	**Medium damage**: Significant breakage of materials or several small areas where material has been damaged, revealing loose asbestos material. Failure of friable asbestos enclosure.
E	Highly likely	• **Very high potential** for damage, or disturbance of the asbestos containing material during work or maintenance.	**High Damage or delamination of materials:** Asbestos debris visible. Friable asbestos enclosures damaged.

Table 7: Risk Matrix

Consequences	A	B	C	D	E
6	I	I	I	I	I
5	II	II	II	I	I
4	III	III	II	I	I
3	IV	III	II	II	I
2	IV	IV	III	II	II
1	IV	IV	III	III	III
	Likelihood				

Table 8: Risk Priority

Priority	Risk ranking	Timing of approval of a treatment plan	Action required
I	Very high	Short term. Normally within 1 month.	Immediate action required, and these risks to be captured on IRM system.
II	High	Medium term. Normally within 3 months.	Strong mandatory action required, and these risks to be captured on IRM system.
III	Medium	Normally within 1 year	Action required, possibly at administrative level.
IV	Low	Ongoing control as part of a management system.	Minor or no action required.

3.9 Actions to be implemented and monitored

3.9.1 At the end of baseline hazard identification & risk assessment (Level 1 – HIRA):

a) Ensure that all hazards have been recognised and all risks have been successfully rated.

b) Formulate the actions to be taken such as compilation of OREPs, person-job specifications, and requirements for undergoing medical surveillance, as required.

c) Compile an action list to manage the control of exposure as recommended by regulation 5(4) of the Asbestos Abatement Regulations, 2020. Also Specify the responsible manager and applicable target dates for medium- to high-risk activities.

3.9.2 At the end of the occupational hygiene hazard identification and risk assessment (Level 2 – HIRA):

a) It is the responsibility of the applicable responsible manager and the OHS manager to ensure that the outcome of this thing (OH-HIRA) is recorded and utilised for compilation of OREPs, person-job specifications, and requirements for undergoing medical surveillance, as required for HR processes.

b) Compile an action list to manage the control of exposure. Specify the responsible manager and applicable target dates for medium- to high-risk activities.

3.9.3 Compile a six-monthly consolidated list of exposures (risk profile) as per the following categories:

a) Key performance area.

b) Critical tasks.

3.9.4 Signing off of the OH-HIRA

The competent person as the compiler followed by the OHS manager as recommended and the Responsible Manager must sign off the OH-HIRA and the proof of competency for the person declared competent to accompany each signed off HIRA – OH report.

3.9.5 Occupational Hygiene Measurements:

If the assessment made indicated that any employee may be exposed to an Occupational hygiene Stress factor above the applicable action level / OEL / Standard, where inhalation of HCS is of concern, employer shall ensure that monitoring is carried out in accordance with the provisions of the relevant regulations and that the exposure shall be controlled as contemplated in those regulation.

3.9.6 Review HIRA to incorporate the results of the Occupational Hygiene Measurements identified in 3.9.5 above.

a) when there is reason to suspect that the previous assessment is no longer valid;

b) the results indicate exposure levels which are not the same as the expected levels which were used to calculate the risk rating for the HIRA; or

c) when there has been an change in a process involving Occupational Hygiene Stress Factors or in the methods, equipment or procedures in the use, handling, control or processing of the HCS

3.9.7 Review baseline risk assessment to incorporate the risk profile identified in 3.9.2 and 3.6.5 above.

a) there is reason to suspect that the previous assessment is no longer valid;

b) there has been an change in a process involving Occupational Hygiene Stress Factors or in the methods, equipment or procedures in the use, handling, control or processing of the HCS; or

c) the results indicate exposure levels which are not the same as the expected levels which were used to calculate the risk rating for the HIRA.

Where a frequency of review is not prescribed by specific regulations or standards, the Occupational Hygiene Hazard Identification and Risk Assessment shall be reviewed every two years.

4. Acceptance

This document has been seen and accepted by:

Name	Designation
Miranda Moahlodi	Senior Manager: Corporate Occupational Hygiene

5. Revisions

Date	Rev.	Compiler	Remarks
March 2016	1	MP Monyela	New document
November 2018	2	MP Monyela	Name change from health Risk Assessment to Occupational Hygiene Hazard Identification and Risk assessment. Inclusion of description of chemical stressors under clause 3.3. Alignment of risk rating tables to the latest Integrated Risk Management (IRM) Standard.
May 2021	3	MP Monyela	Inclusion of asbestos description, assessment, analysis, and categorisation (rating) of risk, in accordance with the Asbestos Abatement Regulations, 2020.

6. Development team

The following people were involved in the development of this document:

- B Botha
- B Matshiane
- E Lazenby
- H Botha
- K. Hlungwane
- N Ndlovu
- M Mphelo
- MP Monyela

7. Acknowledgements

None.

Figure 2: OH-HIRA Process Flow: