IOH Solutions
Innovative Occupational Hygiene Solutions

OCCUPATIONAL HEALTH RISK ASSESSMENT REPORT:

REINHARDT TRANSPORT GROUP (PTY) LTD

Durban

Date: 2026/03/02

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Department:
Employment and Labour
REPUBLIC OF SOUTH AFRICA

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Attn: Johan Theron
Tel: 011 363 9300
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Date: 28 February 2026
Maharaj Rd
Clairwood
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RE: OCCUPATIONAL HEALTH RISK ASSESSMENT REPORT: Reinhardt Transport Group (PTY) Ltd - Durban.

Dear Johan Theron,

Please find attached the Occupational Health Risk Assessment Report completed on the 6th of February 2026 at Reinhardt Transport Group (PTY) Ltd - Durban

This report documents all occupational hygiene–related conditions observed at the time the survey was undertaken.

Consultant responsible for this survey:

- Lindi Bouwer – Registered Occupational Hygienist (ROH) (SAIOH Reg. No.: 0412)

Kind regards

Lindi Bouwer
Technical Signatory
Registered Occupational Hygienist (ROH) - SAIOH Reg. No.: 0412
Approved Inspection Authority - OH 0112 - CI 015

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CONFIDENTIAL OCCUPATIONAL HEALTH RISK ASSESSMENT REPORT – REINHARDT TRANSPORT GROUP (PTY) LTD - DURBA

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PROJECT OBJECTIVES AND AIMS

The Occupational Health Risk Assessment survey, requested by Reinhardt Transport - Durban, was intended to determine employees' exposure to workplace health hazards.

- Health Risk Assessment - Occupational Health and Safety Act 85 of 1993, section 8

By conducting occupational hygiene assessments or evaluations, employers also acknowledge their social responsibilities to their workforce, the industrial environment, and the community. Surveys and assessments also ensure compliance with the Occupational Health and Safety Act, Act No. 85 of 1993, and all applicable regulations promulgated under the Act. The Occupational Health Risk Assessments mentioned above, and evaluations were performed at the premises of Reinhardt Transport - Durban.

Please note:

Complaints: IOH Solutions has a Complaints Procedure and is available to you should you require so. The documentation can be acquired by requesting the documentation by emailing charmaine@iohsolutions.com

Client Feedback: Should you, as the client, have any positive feedback or would like to make any suggestions w.r.t the survey, please provide us with this valuable feedback by emailing charmaine@iohsolutions.com

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SECTION 1: OCCUPATIONAL HEALTH RISK ASSESSMENT*

1.1 INTRODUCTION

This Risk Assessment was a systematic approach to identifying Occupational Hygiene risks accompanied by all the processes of evaluating and prioritising these risks. The assessment used a holistic approach, considering all interrelated factors that could contribute to the development of occupational diseases. The key was identifying the risk, not just the hazard, associated with these processes. Most substances are inherently hazardous. However, the actual circumstances of use will determine the risk posed by the substance. The risk will depend on the hazard potential of the stress vs the probability of exposure, i.e., how it is used/handheld, controlled, exposure concentration and duration (how much and for how long), and the frequency of exposure.

1.2 PURPOSE

- To comply with the requirements of Section 8(2)(d) of the Occupational Health and Safety Act, (No. 85 of 1993);
- To provide management with a summarised/objective report of their Occupational Health Risk problems and/or control options.
- To provide detailed information on occupational health risks (not safety) and hygiene monitoring programmes and medical surveillance required in terms of the applicable legislation.

1.3 METHOD

The Risk Assessment comprises inspections of workstations/premises and areas, identification of occupational health stresses which could occur, and an assessment of these stresses according to the potential degree of hazard and risk to the exposed workers. This involved familiarity with the work environment, work procedures, and existing control measures.

<u>The approach will include three aspects</u>**:**

- Risk Identification (Recognition and Anticipation)
- Risk Assessment (Evaluation and Analysis)
- Risk Control (Recommendations and Mitigation)

The methodology used for this risk assessment aligns with the guidelines for workplace risk assessments specified in the document "Guide to Conducting An Occupational Health Risk Assessment," as required by the Occupational Health and Safety Act, (No. 85 of 1993).

The document sets out the systematic gathering of information on work procedures and operational categories (homogeneous exposure groups) involved in the operations, the analysis of such gathered data, and the eventual interpretation and reporting of the findings.

The Occupational Health Risk Assessment included, amongst others, the following:

- Risk analysis techniques to quantify the risk and determine issues or components that should be changed or managed to reduce the risk to an acceptable level and evaluate technical systems, including, amongst others, procedures, standards, practices, systems, and in-house standards.
- Interviewing knowledgeable members of management, operational personnel, as well as employees at floor level, task analysis of the different job categories and identification of poor work practices, non-compliance, and occupational health and safety hazards, including physical, chemical, biological, ergonomic and physiological stressors
- Identification of possible routes of exposure and the subsequent identification of associated health risks associated with exposure and potential damage to plant or property, as well as the assessment of existing control measures, including administrative and engineering control measures, as well as personal protective equipment and clothing
- Calculation of risk ratings (priority ratings), based on the frequency and duration of exposure, consequences or health effects related to exposure, probability or likelihood of exposure, or occurrence of incident/accident and property damage.

1.4 METHODOLOGY

Prioritising the risk of exposure, accidents or injuries, property damage, or loss of production could be based on the probability of occurrence and the severity or extent of exposure, injury, or damage.

Thus: RISK = FREQUENCY x QUANTITY x PROBABILITY x SEVERITY

Risk:	The risk is the uncertainty surrounding an event and its outcome in a specific situation. The risk is the probability of injury, disease, or death under specific circumstances. In other words, the risk is the potential realisation of unwanted consequences of an event.
Frequency:	The time rate of repetition of periodic phenomena
Quantity:	Relates to how much of a substance, goods or explosives are used, handled or stored
Probability:	Probability refers to the likelihood of exposure, property damage, and personal injury. According to *Valsamakis A. C., et al., in the book "The Theory and Principles of Risk Management," Butterworth Publishers, 1992, it is possible to estimate probability through* experimentation and observation.
Severity:	Health effects, injuries, and property damage from different exposures or conditions/acts vary considerably. The severity of health effects associated with exposure or unsafe condition/act greatly depends on the route of exposure, the substance exposed to, as well as the frequency and duration of publicity, or the extent of the condition or Act

TERMS AND DEFINITIONS

TERM	DEFINITION
Compliance	To comply with health and safety legislation and/or recommended guidelines
Danger	Anything which may cause injury or damage to persons or property
Decontamination	Where practicable, remove all animate objects by way of sweeping, cleaning, washing, ventilating or any other process aimed at eliminating the contaminant.
Disinfect	To render virtually all recognised pathogenic microorganisms non-viable, but not necessarily all microbial forms.
Hazard	A source of or exposure to danger
Hazard Identification and Evaluation	A process of qualitatively and quantitatively evaluating whether hazards are present. The process of risk assessment attempts to determine what substances or chemicals are present, their sources, pathways by which they contact the environment, and whether they can potentially produce adverse health effects in humans, animals, or the environment
Medical Surveillance	A planned program of periodic examinations (which may include clinical examinations, biological monitoring or medical tests) of employees by an occupational health practitioner or, in prescribed cases, by an occupational medicine practitioner
Monitoring	The planning and carrying out of a measurement program and the recording of the results thereof
Occupational Hygiene	The anticipation, recognition, evaluation, and control of conditions arising in or from the workplace that may cause illness or adverse health effects on persons
OHS Act	The Occupational Health and Safety Act, Act No. 85 of 1993
Process of Risk Assessment	Data collection, evaluation, analysis of exposure and its toxicity, and characterising the risk.
Risk	The probability that injury or damage will occur
Substance	Includes any solid, liquid, vapour, gas aerosol, or a combination thereof
DWAF	The Department of Water Affairs and Forestry
DEAT	The Department of Environmental Affairs and Tourism
ECA	The Environmental Conservation Act, 1989 (Act no. 73 of 1989)
EIA	Environmental Impact Assessment
Hazardous Waste	Because of its toxicological, physical, and chemical or persistent properties, waste may exercise detrimental acute or chronic impacts on human health and the environment. It can be generated from a wide range of commercial, industrial, agricultural and domestic activities and may take the form of liquid, sludge or solid.
NEMA	National Environmental Management Act (Act No. 107 of 1998)
MSDS	Material Safety Data Sheet
NWA	National Water Act (Act No. 36 of 1998)
SABS / SANS	South African Bureau of Standards – now South African National Standards
Water Pollution	The direct or indirect alteration of the physical, chemical, or biological properties of a water resource to make it: · Less fit for any beneficial purpose for which it may reasonably be expected to be used or · Harmful or potentially harmful · To the welfare, health, and safety of human beings · To any aquatic or non-aquatic organism · To the resource quality
Waste	Any matter (whether gaseous, liquid or solid) which is an undesirable or superfluous by-product, emission, residue or remainder of any residential, commercial or industrial area and which is: · Discarded by any person · Accumulated a store by any person to eventually discard · Stored for recycling, re-using or extracting usable product

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TERM	DEFINITION
HEG	Homogeneous Exposure Group (HEG) – A group of employees who experience agent exposures similarly. Monitoring the agent exposures of any worker in the group provides data that help predict exposures for the remaining workers.

1.5 RISK CLASSIFICATIONS

FREQUENCY:		QUANTITY OR VOLUME:	
Frequency and duration of exposure, repeated and intermittent		Frequency and duration of exposure, repeated and intermittent	
Score	Frequency Description	Score	Quantity Description
0.5	Yearly	0.5	< 500 kg or litre
1.0	Six monthly	1.0	-
1.5	Quarterly	1.5	-
2.0	Monthly	2.0	500 – 5000 kg or litre
2.5	Weekly	2.5	-
3.0	Daily	3.0	> 5000 kg

PROBABILITY:		
The possibility that exposure or damage will occur, taking into account existing control measures (and failure thereof)		
Score	Qualitative Historical Description	Likelihood Or Probability Description
0.5	No known events	Highly unlikely
1.0	Has occurred, but only when rare events combine	Conceivable but unlikely
1.5	A rare event	Occasional/remotely possible
2.0	Has happened in the industry	Possible
2.5	Has happened once (onsite)	Has happened
3.0	Has happened several times (onsite)	Frequent

SEVERITY OR CONSEQUENCE	
Rating	Health effects, disease, and conditions anticipated with exposure
Score	Health effect or consequence description
0.5	No noticeable consequence, health effect or environmental impact
1.0	Mild irritation to no effect. Almost no damage to plant, property or environment
1.5	Irritation, coughing. Symptoms are reduced once the exposure is terminated. Limited plant, property and environmental damage
2.0	Severe health effects can be controlled by reducing or eliminating exposure. Significant damage to plant, property and the environment
2.5	Permanent condition. Permanent disability. Not reversible. Sensitisation. Damage to Plant/Property and environment
3.0	Fatalities. Extensive plant and property damage, serious environmental damage requiring rehabilitation

RISK SCORE RANGE:	
Score	Range
1 - 5	**Low**
6 – 10	**Moderate**
11 – 20	**High**
21 – 30	**Severe**

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1.6 FINDINGS

A summary of the Health Risk Assessment findings is presented in Tables 1 to 17

1.7 ACTION PLAN

The action plan provides for the allocation of management responsibilities, actions, and due dates for the closeout of findings:

ACTION PLAN			
Stressor	**Statutory Measurements – Criteria Based on the Occupational Health and Safety Act No 85 of 1993 and relevant Regulations**	**Due Date**	**Responsible Person**
Illumination:	Illumination surveys should be performed every 24 months or whenever a new construction phase begins, where areas are significantly modified. Areas where work is done in shifts should have assessments done at night.		
Noise:	Noise monitoring and zoning should occur at intervals not exceeding 24 months, or whenever a process change occurs. All areas are required to have noise zoning assessments.		
Hazardous Chemical Agents	Hazardous chemical monitoring, such as in wash bays and workshops with spray-painting activities, should be conducted at least every 24 months, once it has been established that exposures are below the Occupational Exposure Limit (OEL) for each respective chemical substance. A hazardous compatibility study can also be performed to ensure the safe storage of chemicals.		
Ergonomics	Ergonomics should ideally be assessed for each job description/occupation and work task, and appropriate measures implemented thereafter.		
Hazardous Biological Agents:	Regular water monitoring of drinking water should determine whether it meets minimum requirements. Regular food audits should also be conducted to establish which food quality, preparation, and cleaning methods are acceptable.		
Medical Surveillance and General Employee Health	With the assistance of the Occupational Hygiene representative, medical staff should investigate the implementation of a comprehensive and integrated Occupational Health Programme in which individual employees' health statuses are monitored and customised attention is given to their specific needs. This would require drawing up a database of medical fitness, health issues, predispositions, and exposure profiles. Input into these programmes should come from Occupational Health Practitioners, People employed to monitor nutrition needs, and Occupational Hygiene Personnel. Hygiene awareness programmes should be run to educate employees about the risks and exposures they are exposed to, as well as to promote sound health and hygiene practices. Of high importance would be the formal implementation of a Hearing Conservation Programme.		

TABLE 1: DUST EXPOSURE

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
Reinhardt Trucks Durban	- All employees who are working outdoors	Risk: Hazardous Chemical Agent – Inhalable and Respirable Dust - Occupational Health and Safety Act, Act 85 of 1993 –Section 8 - Hazardous Chemical Agent Regulation Associated Health Impact: - Prolonged exposure to inhalable and respirable chromium dust from truck traffic causes severe, often irreversible, health issues, including chronic respiratory diseases (COPD), lung cancer, and fibrosis. The dust, which can contain toxic heavy metals and silica, is often too small to see but is easily inhaled deep into the lungs	- The site receives daily deliveries of fine chrome-containing product transported by large road freight vehicles. - Employees are exposed to inhalable and respirable dust concentrations. - Vehicular movement occurs throughout the premises, and chrome-containing material has been observed spilling onto paved surfaces. When vehicles traverse these contaminated areas, chrome dust becomes airborne. - At present, road surfaces are sprayed with water as a dust-suppression measure to minimise the generation and dispersion of airborne chrome particulates.	- The road surfaces are sprayed with water to suppress dust. - A skid-steer loader fitted with a sweeper attachment is used to clean yards, roadways, and other areas within the industrial premises. - Stockpiles are covered with tarpaulin to prevent environmental release to the greater surrounding areas.	3	2	2	H	12

Observation(s) and Photo(s):

TABLE 1: DUST EXPOSURE

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

Photo 1: This is a skid-steer loader, an engine-powered machine with lift arms that are fitted with a sweeper attachment to be used for cleaning yards, roads, and industrial premises.

Photo 1: Road surface wet after it was sprayed by the water truck and stockpiles are covered with tarpaulin for Dust suppression, environmental protection and moisture control.

Photo 3 A stockpile of wet chrome-containing product is stored on the premises. The material is maintained in a damp condition to minimise airborne dust generation.

TABLE 1: DUST EXPOSURE

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

Recommendation(s):

An Occupational Hygiene exposure monitoring and measurements must be conducted as soon as reasonably practicable (ASARP)

Chrome Dust Management and Maintenance System

1. Purpose

To establish a structured management system to control, monitor, and minimise the generation and dispersion of chrome-containing dust on the premises, thereby protecting employees, contractors, visitors, and the environment.

2. Scope

This system applies to:

- Delivery and offloading of chrome-containing materials
- Internal vehicle movement
- Stockpiling and storage areas
- Roadways and paved surfaces
- Yard and operational areas

3. Responsibilities

I. Management

- Ensure adequate resources for dust control measures

TABLE 1: DUST EXPOSURE

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

- Approve procedures and review monitoring results
- Ensure legal compliance

II. Supervisors

- Enforce dust suppression procedures
- Conduct routine inspections
- Report non-conformances

III. Operators and Employees

- Follow dust control procedures
- Report spillages immediately
- Participate in training programmes

IV. Occupational Hygiene / SHE Department

- Conduct dust monitoring
- Review the effectiveness of control measures
- Maintain exposure records

4. Engineering Controls

- Road surface spraying using water bowsers or fixed spray systems
- Maintenance of damp conditions on chrome stockpiles
- Use of skid-steer sweepers with dust suppression capability
- Prompt removal of spilt material
- Surface stabilisation of unpaved areas, where feasible

5. Administrative Controls

- Scheduled road wetting programme (frequency based on weather and traffic)
- Routine yard inspection checklist
- Speed limit enforcement to reduce dust generation
- Designated transport routes within the premises
- Spillage response procedure
- Maintenance schedule for dust suppression equipment

6. Monitoring and Measurement

- Personal and airborne chrome dust monitoring (as per applicable regulations) must be conducted every 24 months by a registered approved inspection authority.
- Visual dust assessments during operations
- Surface contamination checks were required
- Periodic review of dust suppression effectiveness

Monitoring results must be recorded and compared against applicable Occupational Exposure Limits (OELs)

7. Housekeeping Programme

- Daily sweeping of high-traffic areas
- Immediate cleanup of spillages
- Controlled disposal or reprocessing of collected material
- Prevention of accumulation on hard surfaces

8. Training and Awareness

- Hazards associated with chrome dust exposure
- Safe handling procedures
- Use of PPE where required
- Reporting protocols

9. Personal Protective Equipment (Where required)

- Respiratory protective equipment (if monitoring indicates need)
- Protective clothing
- Gloves
- Eye protection

TABLE 1: DUST EXPOSURE

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

PPE shall not replace engineering controls; rather, it should serve as a supplementary control measure.

10. Review and Continuous Improvement

- Annual system review
- Review after incidents or exceedances
- Corrective action tracking
- Continuous improvement based on monitoring data

Corrective Action Plan

Subject: Chrome-Containing Dust Exposure – Delivery and Vehicular Movement

No.	Finding	Risk	Corrective Action Required	Responsible Person	Priority	Target Date
1	Daily deliveries of fine chrome-containing product transported by large road freight vehicles.	Generation of inhalable and respirable chrome dust during offloading and transport.	Implement controlled offloading procedures. Ensure loads are sealed/covered. Designate supervised delivery zones with dust suppression controls.	Operations Manager	High	30 days
2	Employees exposed to inhalable and respirable dust concentrations.	Respiratory health effects, potential exposure to hexavalent chromium, occupational disease risk.	Conduct personal exposure monitoring (inhalable, respirable dust and Cr(VI) if applicable). Provide appropriate RPE pending monitoring results. Implement medical surveillance programme where required.	Occupational Hygienist / HSE Manager	High	30 days
3	Vehicular movement across contaminated paved areas causing dust to become airborne.	Secondary airborne contamination and widespread dust dispersion.	Introduce controlled traffic routes, enforce speed limits (≤20 km/h), and install wheel-wash or tyre-cleaning systems to prevent dust tracking.	Engineering / Operations	High	60 days
4	Chrome-containing material spillage observed on paved surfaces.	Airborne dust generation when disturbed by vehicles; environmental contamination.	Develop and implement formal spill response procedure. Prohibit dry sweeping. Use industrial HEPA vacuum systems for clean-up. Train designated spill response personnel.	HSE Practitioner	Immediate	14 days
5	Road surfaces sprayed with water as current dust suppression measure (informal system).	Inconsistent suppression effectiveness during dry/windy conditions.	Formalise dust suppression programme including scheduled spraying frequency, consideration of approved dust-binding agents, and documented inspection records.	Site Supervisor	Medium	30 days
6	No documented chrome dust management system in place.	Non-compliance with Occupational Health and Safety and Hazardous Chemical Agents Regulations.	Develop and implement Chrome Dust Management Procedure aligned with ISO 45001. Include monitoring, housekeeping, PPE, training, and review requirements.	HSE Manager	High	60 days

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TABLE 2: OFFICE ERGONOMICS – LAPTOP SETUP AND SCREEN POSITIONING

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
Reinhardt Transport - Durban	- Administrative Offices	Risk: Laptop and Screen Positioning: - Occupational Health and Safety Act, Act 85 of 1993 –Section 8 - Ergonomics Regulations, 2019 Workstation Setup – Laptops: - Laptops are not ergonomically designed for prolonged or continuous use. It is therefore essential that laptop workstations are appropriately configured to minimise exposure to associated ergonomic risk factors and to reduce the likelihood of musculoskeletal strain and related health effects. Associated Health Impacts: - Headaches	Incorrect Laptop Workstation Setup. All administrative staff use laptop computers with external screens. Alignment Issues: - Laptops were observed to be positioned flat on workstation surfaces at approximately 30 cm. The average seated eye height of computer users is approximately 70 cm, leading them to adopt sustained neck flexion to view the laptop screen. - This workstation configuration prevents maintenance of a neutral head and neck posture. In a neutral upright position, the average human head weighs approximately 5 kg. However,	- None observed - This survey is to be repeated within a period not exceeding 24 months.	3	2	1,5	M	9

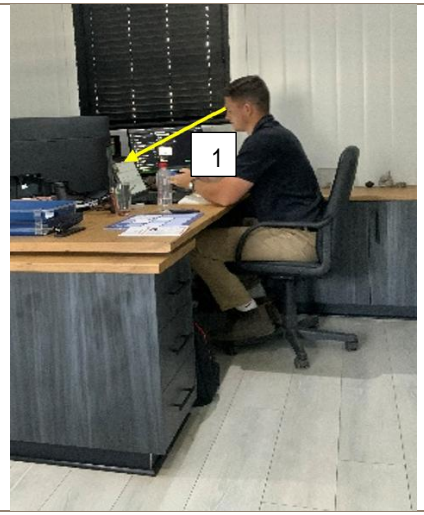
TABLE 2: OFFICE ERGONOMICS – LAPTOP SETUP AND SCREEN POSITIONING

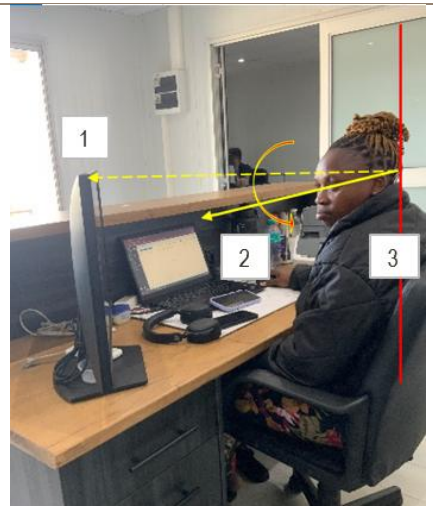
					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score
		- Painful and inconvenient computer injuries that are generally referred to as - Repetitive Stress Injuries (RSI), - Cumulative Trauma - Disorders (CTD), and - Computer Vision Syndrome (CVS) - Constant pain - Numbness of the skin in the neck areas - Tech Neck	as the head tilts forward to accommodate a downward viewing angle, the effective load on the cervical spine increases substantially. At approximately 60 degrees of neck flexion, the load on the cervical spine may reach 27 kg. - The sustained adoption of this posture places excessive mechanical stress on the cervical spine and associated musculature, increasing the risk of muscle fatigue, neck and shoulder discomfort, and the development of long-term musculoskeletal disorders.						

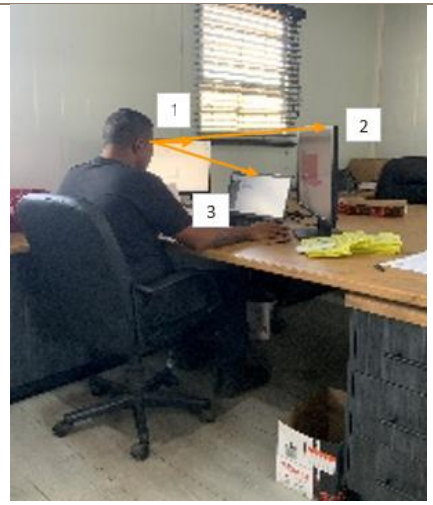
TABLE 2: OFFICE ERGONOMICS – LAPTOP SETUP AND SCREEN POSITIONING

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

Observation(s) and Photo(s):







1. The computer screen was observed to be positioned significantly below the recommended ergonomic viewing height. Appropriate screen height can be determined by adjusting the display so that the top of the screen is aligned approximately at the user's eyebrow level when seated in an upright posture.

1. External Screen Setup. The screen is too far away from the employee's eyes.
2. Excessive Neck Rotation – Dual Screen Arrangement
   In the referenced photograph, the employee was observed rotating her head approximately 60 degrees to the left in order to

1 & 2. **Viewing Distance – External Screens**
The two external screens were observed to be positioned too far from the employee's eyes. Excessive viewing distance may result in forward head posture and trunk leaning, increasing strain on the cervical and upper thoracic spine. Screens should

TABLE 2: OFFICE ERGONOMICS – LAPTOP SETUP AND SCREEN POSITIONING

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
2. The current configuration requires users to maintain a downward gaze while working, leading to sustained neck flexion. This posture is associated with reported discomfort in the shoulders, neck, and upper back and increases the risk of musculoskeletal strain from prolonged static loading.			view a secondary screen. Sustained neck rotation of this magnitude increases cervical strain and may contribute to neck and shoulder discomfort. It is strongly recommended that the secondary screen be repositioned closer to the primary working area and aligned to reduce excessive head rotation. The optimal positioning of dual-screen configurations will be discussed in greater detail under the section addressing double-screen workstation setup in this Health Risk Assessment. 3. Laptop Screen Height The laptop screen is positioned too low and requires elevation of approximately 15 cm to achieve an appropriate ergonomic viewing height. The top of the screen should be aligned approximately at the user's eyebrow level when seated in an upright posture. Interim corrective measures may include placing the laptop on a stable stack of books or a ream of paper. Alternatively, an	generally be positioned at an approximate viewing distance of 45–70 cm, depending on visual acuity and screen size, to promote a neutral seated posture and reduce visual and musculoskeletal strain. 3. **Screen Height – External Monitor** The computer screen was observed to be positioned significantly below the recommended ergonomic viewing height. Appropriate screen height can be achieved by adjusting the display so that the top of the screen is aligned approximately at the user's eyebrow level when seated in an upright posture. 4. **Postural Impact – Sustained Neck Flexion** The current configuration requires users to maintain a downward viewing angle while working, resulting in sustained neck flexion. This posture is associated with reported discomfort in the shoulders, neck, and upper back and increases the risk of musculoskeletal strain from prolonged static loading.					

TABLE 2: OFFICE ERGONOMICS – LAPTOP SETUP AND SCREEN POSITIONING

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification: Frequency	Probability	Severity	Risk Priority	Risk Score
			appropriate laptop stand or docking solution is recommended to ensure proper and sustainable positioning.						

Recommendation(s):

An Occupational Hygiene Workstation Ergonomics Programme implementation must take place.

1. Screen Height and Position

- The laptop screen should be elevated so that the top of the screen is approximately at the user's eyebrow level when seated upright.
- The screen should be positioned directly in front of the user to prevent neck rotation.
- Viewing distance should generally be between 45 and 70 cm, depending on screen size and visual requirements.
- The screen should be tilted slightly backward (approximately 10–20 degrees) to maintain a comfortable viewing angle.

2. External Keyboard and Mouse

- Where laptops are used for prolonged periods, an external keyboard and mouse must be provided.
- The keyboard should allow the user to maintain:
  - Elbows at approximately 90–100 degrees
  - Wrists in a neutral (straight) position
  - Shoulders relaxed and not elevated

TABLE 2: OFFICE ERGONOMICS – LAPTOP SETUP AND SCREEN POSITIONING

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

Corrective Action Plan

Subject: Laptop Workstation Ergonomic Non-Conformance

No.	Finding	Risk	Corrective Action Required	Responsible Person	Priority	Target Date
1	Employees using laptops flat on desks without elevation	Neck strain, upper back pain, forward head posture	Immediately instruct employees to elevate laptop screens to eye level using temporary risers and cease prolonged flat-laptop use.	Line Supervisor	Immediate	Immediate
2	No external keyboard and mouse provided	Wrist extension, shoulder elevation, MSD risk	Procure and issue external keyboard and mouse for all laptop users.	Procurement / IT	High	14 days
3	Inadequate workstation setup (screen height and viewing distance incorrect)	Eye strain, neck and shoulder disorders	Conduct workstation adjustments ensuring screen at eye level and viewing distance ±45–70 cm.	HSE / Supervisor	High	14 days
4	No documented Ergonomic Risk Assessment conducted	Non-compliance with Ergonomics Regulations (2019)	Conduct formal Ergonomic Risk Assessment and document findings in accordance with Ergonomics Regulations, 2019.	HSE Practitioner	High	30 days
5	Lack of employee ergonomic training	Continued poor posture and unsafe practices	Conduct ergonomic awareness training and toolbox talks. Maintain attendance records.	HSE / HR	Medium	30 days
6	No monitoring or follow-up on reported discomfort	Progression of musculoskeletal disorders	Implement discomfort reporting system and schedule follow-up assessments.	Line Manager	Medium	Ongoing

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TABLE 3: OFFICE ERGONOMICS: DUAL MONITOR SCREEN SETUP

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
Reinhardt Trucks Durban	Administrative Offices	Risk: Dual Monitor Screen Setup: - Occupational Health and Safety Act, Act 85 of 1993 –Section 8 - Ergonomics Regulations, 2019 Associated Health Impact: - Laptop computers are not ergonomically designed for prolonged use. The monitor and keyboard are so close together that neither can be in a good position at the same time. Specific Associated Impacts of Incorrect Double Screen Setup: Working with dual screens side by side can lead to frequent neck rotation and muscle strain in the neck and shoulder region	- All employees are utilising a dual-monitor workstation configuration. - The laptop screens are positioned substantially below the recommended ergonomic viewing height. This arrangement requires users to maintain a downward viewing angle, resulting in sustained neck flexion and increased musculoskeletal strain. - The laptop screen appears to be positioned at an excessive viewing distance from the user, potentially contributing to forward head posture and visual strain.	- Nonspecific with regards to the dual monitoring setup - This survey must be repeated within a period not exceeding 24 months.	3	2	2	H	12

TABLE 3: OFFICE ERGONOMICS: DUAL MONITOR SCREEN SETUP

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score
			- Natural light entering through the window is causing screen glare, which may result in visual discomfort and compensatory postural adjustments. - The secondary monitor is positioned at a pronounced angle to the left, requiring approximately 60° of neck rotation for viewing, thereby increasing the risk of cervical strain.						

PHOTO – DUAL SCREEN SETUP DISCUSSION

PHOTO – DUAL SCREEN SETUP DISCUSSION

1. Laptop Screen Height – Too Low

Observation:

The laptop screen is positioned significantly below the recommended ergonomic viewing height. The current setup requires the user to maintain a downward viewing angle, resulting in sustained neck flexion.

Risk Implication:

Prolonged neck flexion increases mechanical loading on the cervical spine and associated musculature, contributing to neck, shoulder, and upper back discomfort. Over time, this may increase the risk of developing musculoskeletal disorders.

Recommendation:

The laptop should be elevated using a suitable laptop stand or docking station so that the top of the screen aligns approximately with the user's eyebrow level when seated upright. Where laptops are used for extended periods, an external keyboard and mouse should be provided to allow proper screen elevation without compromising upper limb posture

Photo 2 The use of a double screen setup

2. Viewing Distance – Screen Positioned Too Far

Observation:

The laptop screen appears to be positioned at an excessive viewing distance from the user.

Risk Implication:

Excessive viewing distance may result in forward head posture and trunk leaning, increasing strain on the cervical and thoracic spine. It may also contribute to visual fatigue.

TABLE 3: OFFICE ERGONOMICS: DUAL MONITOR SCREEN SETUP

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

Recommendation:

The screen should be repositioned within an appropriate viewing range of approximately 45–70 cm, depending on screen size and visual requirements. The user should be able to view the screen comfortably without leaning forward.

3. Glare from Natural Illumination

Observation:
Natural light entering from the window is creating glare on the screens.

Risk Implication:

Glare reduces screen visibility and may cause users to adopt awkward postures (e.g., leaning or twisting) to compensate. It also increases the risk of visual strain, headaches, and reduced work efficiency.

Recommendation:

Control measures may include:

- Adjusting the orientation of the workstation so that screens are positioned perpendicular to windows.
- Installing adjustable blinds or curtains to regulate incoming light.
- Adjusting screen brightness and contrast settings.
- Applying anti-glare screen filters if necessary.

TABLE 3: OFFICE ERGONOMICS: DUAL MONITOR SCREEN SETUP

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

4. Secondary Screen Position – Excessive Neck Rotation

Observation:

The secondary screen is positioned at a significant angle to the left, requiring approximately 60 degrees of neck rotation to view.

Risk Implication:

Sustained neck rotation of this magnitude places excessive strain on the cervical spine and shoulder girdle musculature and increases the risk of musculoskeletal discomfort.

Recommendation:

If the secondary screen is used frequently, it should be positioned directly in front of the user, with the primary screen placed adjacent to it. If one screen is used predominantly, that screen should be centred, and the secondary screen positioned close beside it at a minimal viewing angle. Both screens should be at a similar height and viewing distance.

TABLE 3: OFFICE ERGONOMICS: DUAL MONITOR SCREEN SETUP

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

RECOMMENDATION(S)

Office Work: Dual Monitoring Screen Setup

Employees should be able to work in a neutral (no strain) posture by adjusting the height or positioning of their workstations. Having two monitors on your workstation may help you work more productively and efficiently and provide several other advantages. However, employees are still not careful. Adding an extra screen might lead to poor ergonomic practices, increasing your risk of injury and pain.

Dual monitor setup:

- Look straight at the primary monitor. With this configuration, employees will not have to keep their heads at an angle. The employee can use peripheral vision and eye movements to glance at the secondary monitor.
- Keep the keyboard and mouse close together to avoid excessive arm movement or reaching. Limiting arm and wrist movement will help prevent conditions such as Repetitive Stress Injury (RSI), Carpal Tunnel Syndrome (CTS), and Overuse Syndrome.
- Similar to using a single monitor, an appropriate set-up of dual (two) monitors is essential to help reduce work-related musculoskeletal injuries.

When using both monitors equally (about 50/50):

- Place both monitors as close as possible in front of you. The inner edges should touch and be directly in front of you.
- Place the monitors at an angle to create a semicircle.

If you use one monitor more often (about 80/20):

- Place the monitor you use most directly in front of you as if it were a single monitor.
- Place the secondary monitor on one side at an angle (half a semicircle).

TABLE 3: OFFICE ERGONOMICS: DUAL MONITOR SCREEN SETUP

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

- You may find one eye is more dominant than the other. Place the secondary monitor on the side of your dominant eye.

In both cases, monitors should still be about arm's length from your body and at the same height (eye level or slightly lower if using corrective lenses) as described above.

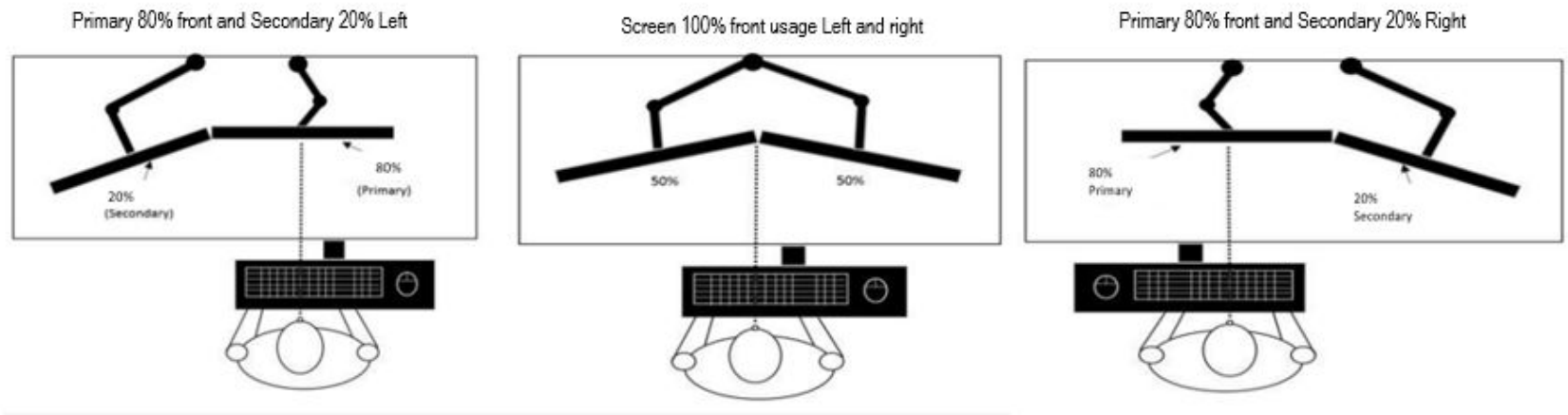

Figure 1: Different Options for Dual Screen Setup

TABLE 3: OFFICE ERGONOMICS: DUAL MONITOR SCREEN SETUP

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

Corrective Action Plan

Subject: Office Ergonomics – Dual Monitor Screen Setup

No.	Finding	Risk	Corrective Action Required	Responsible Person	Priority	Target Date
1	Monitors positioned at unequal distances (e.g. one at 60 cm, one at 35 cm)	Neck rotation strain, eye strain, shoulder discomfort	Reposition monitors so both screens are approximately 45–70 cm from the user and aligned consistently.	Line Supervisor	High	14 days
2	Primary monitor not centred to user	Sustained neck twisting and postural deviation	Centre primary monitor directly in front of user; place secondary monitor adjacent at slight angle if used less frequently.	Supervisor / Employee	High	7 days
3	Incorrect monitor height (top of screen above or below eye level)	Neck flexion/extension strain	Adjust monitor height so top of screen is at or slightly below eye level. Provide monitor risers or adjustable arms where necessary.	Facilities / IT	High	14 days
4	Glare or poor lighting affecting screens	Visual fatigue, headaches	Reposition monitors perpendicular to windows; install blinds or anti-glare filters where required.	Facilities	Medium	30 days
5	No documented ergonomic assessment	Non-compliance with Ergonomics Regulations (2019)	Conduct formal Ergonomic Risk Assessment and document findings.	HSE Practitioner	High	30 days
6	Lack of employee ergonomic awareness	Continued improper setup and posture	Conduct ergonomic training and workstation setup guidance sessions. Maintain training records.	HSE / HR	Medium	30 days
7	No follow-up monitoring	Recurrence of non-compliance	Implement periodic ergonomic inspections and employee discomfort surveys.	Line Manager	Medium	Ongoing

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TABLE 4: OFFICE ERGONOMICS: KEYBOARDS

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and Health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
Reinhardt Transport - Durban	Administrative Offices	Risk: Keyboards - Occupational Health and Safety Act, Act 85 of 1993 –Section 8 - Ergonomic Regulation No. R.1589 Dec 2019 Associated Health Impacts: - Headaches - Painful and inconvenient computer injuries that are generally referred to as: ○ Repetitive Stress Injuries (RSI), ○ Cumulative Trauma ○ Disorders (CTD), and ○ Computer Vision Syndrome (CVS) ○ Constant pain ○ Numbness in the neck area.	- The current workstation layout is not ergonomically favourable and requires reconfiguration. - It is recommended that the workstation be assessed and adjusted by a competent, knowledgeable individual with appropriate ergonomic expertise to ensure compliance with ergonomic best-practice principles and minimise the risk of musculoskeletal strain.	- No control measures were observed regarding the issuance of external Bluetooth keyboards.	3	2	2	H	12

Observation(s) and Photo(s):

TABLE 4: OFFICE ERGONOMICS: KEYBOARDS

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and Health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

When using laptops, external keyboards are issued for the proper setup:

- When configuring a laptop workstation correctly, the entire laptop unit must be elevated to achieve the recommended screen height (i.e., with the top of the screen approximately aligned to the user's eyebrow level in an upright seated posture).
- Once elevated, the integrated laptop keyboard and touchpad are no longer positioned at an ergonomically appropriate height for use. Continued use of the built-in keyboard in this elevated position would result in excessive shoulder elevation and wrist extension, thereby increasing the risk of upper limb strain.
- It is therefore required that an external keyboard and mouse (e.g., Bluetooth or wired devices) be provided when the laptop is raised. This will allow:

  - Maintenance of neutral wrist posture
  - Elbows positioned at approximately 90–100 degrees
  - Shoulders relaxed and not elevated
  - Forearms supported and parallel to the floor

Photo 3 - The use of a laptop without an external keyboard

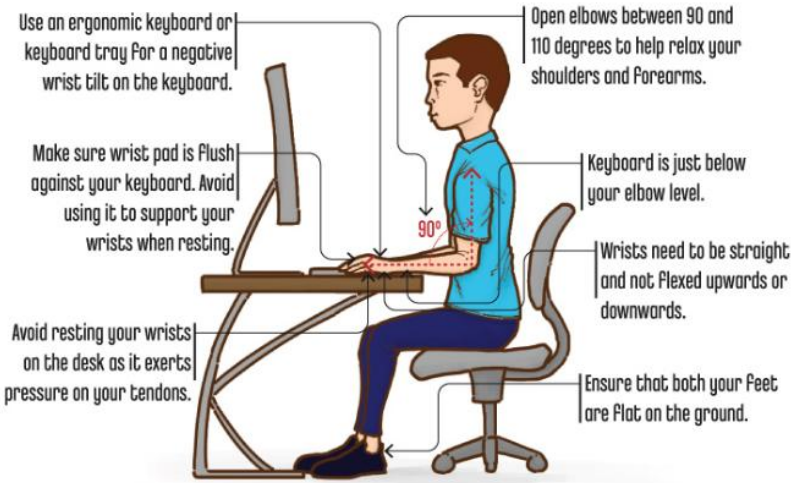
Providing external input devices is essential to ensure that screen elevation does not introduce additional ergonomic risks.

TABLE 4: OFFICE ERGONOMICS: KEYBOARDS

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and Health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

RECOMMENDATION(S):

Keyboard Guidelines:



Positioning:

- Position the keyboard directly in front of the used, to avoid reaching or twisting.
- Keep the elbows close to the body and bend at approximately 90 degrees.
- Ensure the wrists are in a neutral position, neither bent upward nor downward, while typing.

Height Adjustment:

- Adjust the height of the chair so that the forearms are parallel to the ground when typing.
- If the keyboard has adjustable legs, experiment with different heights for a comfortable position.

Keyboard Tilt:

- Some keyboards come with adjustable tilt features. Avoid excessive tilting, as this can strain the wrists. A slight negative tilt (front higher than back) may be more comfortable for most users.

Wrist Suppor

- Consider using a padded wrist rest to support the wrists during typing. However, make sure it does not force the wrists into an awkward angle or cause pressure on the underside of the wrists.

Typing Technique:

TABLE 4: OFFICE ERGONOMICS: KEYBOARDS

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and Health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score

- Type with a light touch and avoid excessive force when striking the keys. This reduces strain on the fingers and wrists.
- Use all fingers (if possible) while typing to distribute the workload evenly.

Breaks and Stretching:

- Take regular breaks to rest the hands and stretch the fingers, wrists, arms, and shoulders. This helps prevent repetitive strain injuries.
- Consider using software or apps for reminders to take breaks at regular intervals.

Keyboard Layout:

- Choose a keyboard layout that suits individual typing styles and preferences. This could include ergonomic keyboards with split designs, curved layouts, or alternative key arrangements.

Workspace Arrangement:

- Arrange the desk setup to minimise strain. Ensure the keyboard is at a comfortable distance from the monitor and maintain a relaxed posture while typing.

Regular Maintenance:

- Keep the keyboard clean and free of debris. Dust and dirt buildup can affect typing comfort and performance.
- Replace worn-out or malfunctioning keyboards to maintain optimal ergonomics.

TABLE 5: OFFICE ERGONOMICS: MOUSE AND MOUSEPAD

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and Health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
Reinhardt Transport - Durban	Administrative Offices	Risk: Mouse and Mousepad - Occupational Health and Safety Act, Act 85 of 1993 –Section 8 - Ergonomic Regulation No. R.1589 Dec 2019 Associated Health Impacts: Painful and inconvenient computer injuries that are generally referred to as: - Repetitive Stress Injuries (RSI), - Cumulative Trauma - Disorders (CTD), and - Computer Vision Syndrome (CVS) - Constant pain - Numbness of skin in the neck areas	- All workstations make use of an external mouse - There are no issued mouse pads	- No control measures were observed regarding the issuance of gel mousepads. - This survey will be repeated within a period not exceeding 24 months.	3	2	2	H	12

Observation(s) and Photo(s):

TABLE 5: OFFICE ERGONOMICS: MOUSE AND MOUSEPAD

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and Health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score
A gel mouse pad was observed at the workstation. **Ergonomic Benefit:** A gel mouse pad provides cushioned support for the wrist and may help maintain a more neutral wrist posture during mouse use. When correctly positioned and used appropriately, it can help reduce contact stress at the wrist and minimise pressure on soft tissues. **Note:** It should be ensured that the wrist rest supports the palm rather than the wrist joint, and that the user avoids placing excessive body weight on the gel pad during active mouse movements. When used correctly, this control measure helps reduce upper limb discomfort.			 Photo 4 Provide employees with gel wrist support mouse pads for the correct use of the mouse.	 Photo 5 Correct wrist and mouse use					

RECOMMENDATION(S):

TABLE 5: OFFICE ERGONOMICS: MOUSE AND MOUSEPAD

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and Health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

General guidelines for using a mouse and mousepad:

Mouse Placement:

- Position the mouse close to the keyboard within easy reach to avoid overreaching or straining.
- Place the mouse at the same level as the keyboard to keep the wrists in a neutral position.

Hand Position:

- Hold the mouse with a relaxed and neutral grip. Avoid gripping the mouse too tightly.
- Keep the wrist straight and in line with the forearm to reduce strain on the wrist and forearm muscles.

Mouse Size and Shape:

- Choose a mouse that fits comfortably in the hand. Ergonomic mice come in various shapes and sizes to accommodate different hand sizes and grip styles.
- Consider an ergonomic mouse with a contoured design that supports the natural curve of the hand, reducing stress on the wrist and fingers.

Mouse Sensitivity:

- Adjust the mouse's sensitivity to a level that allows smooth, precise cursor movement without requiring excessive force or wrist movement.

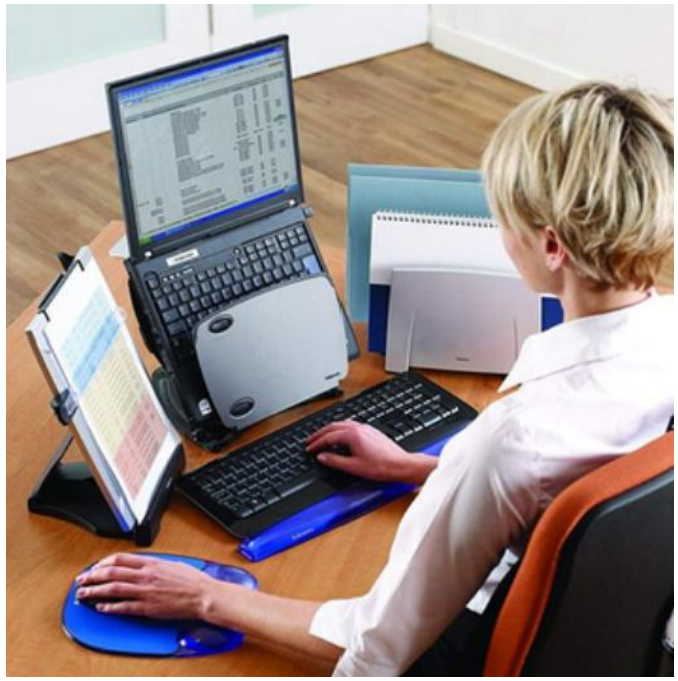


Photo 6 The use of external peripherals

TABLE 5: OFFICE ERGONOMICS: MOUSE AND MOUSEPAD

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and Health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

- Higher sensitivity settings may reduce the need for large arm movements, helping prevent shoulder and elbow strain.

Mousepad Size and Surface:

- Use a mousepad with a smooth surface that allows the mouse to glide easily. Avoid using rough or uneven surfaces, as they can cause friction and strain.
- Choose a mousepad size that accommodates both the mouse and the preferred range of motion. A larger mousepad allows for more comfortable movement and reduces the need to frequently lift and reposition the mouse.

Wrist Support:

- Consider using a mousepad with an integrated wrist rest or a separate gel wrist rest to support the wrist while using the mouse. Make sure the wrist rest is padded and provides cushioning without forcing the wrist into an awkward angle.

Breaks and Stretching:

- Take regular breaks to rest the hands and stretch the fingers, wrists, and arms. This helps prevent muscle fatigue and stiffness associated with prolonged mouse use.

Alternate Input Devices:

- Consider using alternative input devices such as trackballs, touchpads, or ergonomic mice with unique designs if traditional mice cause discomfort or strain.

Workspace Arrangement:

- Arrange the desk setup to optimise mouse usage. Ensure there is enough space for comfortable mouse movement and that the desk and chair height allow for proper arm and wrist alignment.

TABLE 6: OFFICE ERGONOMICS: OFFICE CHAIRS

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
Reinhardt Transport - Durban	Administrative Offices	Risk: Office Chairs: - Occupational Health and Safety Act, Act 85 of 1993 –Section 8 - Ergonomics Regulations, 2019 - National Norms and Standards Relating to Environmental Health in Terms of National Health Act, 2003 (Act No 61 Of 2003) Associated Health Impact: - Injuries resulting from prolonged sitting are serious occupational health and safety problems. Sitting jobs require less muscular effort, but that does not exempt people from the injury risks usually associated with more physically demanding tasks. - Administrative employees who work in a sitting position also suffer back pain, muscle	- All chairs in the office environment provide the necessary back support.	- Good chairs provided to employees - This survey will be repeated within 24 months.	3	1,5	2	M	9

TABLE 6: OFFICE ERGONOMICS: OFFICE CHAIRS

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score
		tenderness, and aches. Reports of varicose veins, stiff necks, and leg numbness are more common among seated employees than among those performing heavier tasks.							

Observation(s) and Photo(s):

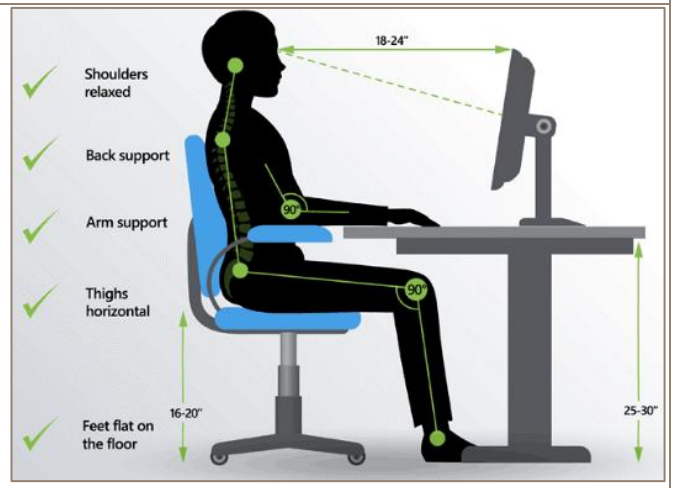
- The employer is providing the administrative office staff with good-quality chairs. The provision of ergonomically designed seating contributes positively to workstation comfort and supports appropriate seated posture. When correctly adjusted, these chairs can assist in maintaining lumbar support, reducing lower back strain, and promoting overall musculoskeletal health.
- Encourage employees to make use of the chair's supporting features.
- Regular chair maintenance must be conducted.

Photo 7 Good-quality ergonomic chairs are provided in the offices

TABLE 6: OFFICE ERGONOMICS: OFFICE CHAIRS

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

RECOMMENDATION(S):



- The current supply of office chairs to the administrative provides good back support.
- Chairs must form part of the maintenance register to ensure continuous support.

General Guidelines for Office Chair Setup

- Due to different anthropometrics (difference in build), adjusting the office chair to the proportions of the individual's body is necessary to improve comfort and reduce aggravation to the spine.
- Employees must be trained on the ergonomically correct workstation set-up. This will enable an employee to maintain an ergonomically good posture, chair, desks, and screen setup and identify issues that can be corrected timeously.
- Ensure that employees know how to use and setup their chairs.
- Chairs must be maintained.
- Select a chair that can support the spinal curve.
- Chair height must be adjustable for the task being performed: The armrests should be at a comfortable open angle (100° to 110°) while typing.
- Ensure all workstations have adequate workspace allocated for computers, including network cables and power points, to ensure good cable management and proper workstation layout.
- Easy-glide mats can be provided to employees working in offices that are carpeted.
- A back support insert must be provided if the employee needs back support.

TABLE 7: TRUCK TYRE CHANGING

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and Health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
Reinhardt Trucks Durban	**Workshop Activity:** Removal of worn tyres from rims and installation of new tyres onto rims.	Risk: Truck Tyre Changes - Occupational Health and Safety Act, Act 85 of 1993 –Section 8 - Ergonomic Regulation No. R.1589 Dec 2019 Hazard Description The manual removal of large truck tyres presents significant ergonomic risks due to: **Postural Stress** - Forward flexion of the spine during loosening and removal - Twisting while stabilising the tyre **Forceful Exertion** - Breaking torque on wheel nuts	**STOP THIS PRACTICE** **Employees are changing truck tyres.** - Jumping onto the tyre, trying to saddle the rim.	- Non-specific to the changing of tyres	3	2,5	2,5	H	18,8

TABLE 7: TRUCK TYRE CHANGING

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and Health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score
		- Controlling the tyre's weight once loosened **Contact Stress** - Handling rough tread surfaces - Pinch points between hub and rim							

Observation(s) and Photo(s):

Ergonomic and Safety Observation – Tyre Refit Procedure:

The employee is observed attempting to seat the truck tyre onto the rim by jumping onto the tyre with both feet to force it into position. This practice constitutes serious safety and ergonomic non-conformance

Hazard Identification. The following hazards are present:

- Serious Fall risk due to loss of balance while standing/jumping on an unstable surface
- Ankle, knee and lower limb injury from uncontrolled landing
- Lower back injury due to sudden impact forces
- Crush injury risk if the tyre shifts or rim dislodges
- Slip hazard due to the workshop floor surface
- Uncontrolled movement of the rim or tyre

Very High Risk

Photo 9 Employee jumping onto tyre trying to put the tyre on the rim

Photo 8 Employee throwing truck tyre forcefully over rim in order to go over the sides of the rims

TABLE 7: TRUCK TYRE CHANGING

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and Health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

RECOMMENDATION(S):

General guidelines to change truck tyres:

- Provide heavy duty tools that are designed for leverage.
- Implement a two-person lift policy when mechanical aid is not available to lift heavy truck tyres.
- When using manual levers, pull the tool towards the body to maintain control and balance.
- Provide manual handling training specifically for truck tyre changing. Employees must be trained on:
  - Neutral spine positioning
  - Avoiding twisting their torso under when lifting.
  - Keeping loads close to the body
  - Safe pushing vs pulling techniques.
- Provide correct PPE
  - Cut-resistant, anti-vibration gloves
  - Steel-toe safety boots for impact protection
  - Knee pads if kneeling is unavoidable

Photo 12 Tyre Change mount and demount tools

TABLE 7: TRUCK TYRE CHANGING									
					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and Health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score
CORRECTIVE ACTION PLAN:									

TABLE 7: TRUCK TYRE CHANGING

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and Health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

Corrective Action Plan

Subject: Unsafe Tyre Seating Method – Jumping onto Tyre

No.	Finding	Risk	Corrective Action Required	Responsible Person	Priority	Target Date
1	Employee observed jumping onto truck tyre to force seating onto rim	High risk of fall, ankle/knee injury, spinal injury, crush injury	Immediately stop the unsafe practice. Issue instruction prohibiting standing or jumping on tyres.	Workshop Supervisor	Immediate	Immediate
2	No suitable mechanical aid used for tyre mounting	Musculoskeletal injuries due to forceful exertion	Procure and implement appropriate tyre fitting equipment (e.g., mechanical tyre changer, bead seating tool, hydraulic assist device).	Workshop Manager / Procurement	High	30 days
3	Absence of documented Safe Work Procedure (SWP) for tyre mounting	Inconsistent and unsafe work practices	Develop and implement a formal Safe Work Procedure outlining safe tyre mounting and seating methods.	HSE / Workshop Manager	High	30 days
4	Inadequate task-specific training	Continued unsafe behaviour	Conduct task-specific training and toolbox talks on safe tyre handling, correct use of equipment, and prohibition of unsafe methods. Maintain training records.	HSE / Supervisor	High	14 days
5	Lack of supervision and enforcement	Recurrence of unsafe practices	Increase supervision during tyre servicing activities. Implement disciplinary measures for non-compliance if necessary.	Workshop Manager	Medium	Ongoing
6	Tyre and rim not stabilised during fitting	Movement leading to crush injuries	Implement use of stabilising supports or tyre stands during mounting operations.	Workshop Supervisor	High	14 days

Verification Requirements

- Photographic evidence of new equipment in use
- Approved and signed Safe Work Procedure
- Training attendance registers
- Supervisory inspection records

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TABLE 8: HAZARDOUS BIOLOGICAL AGENTS - EFFECTIVENESS OF CLEANING

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	- Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
Reinhardt Transport - Durban	- Administrative Offices - Cleaners - Employees	Risk: Effectiveness of Cleaning: - Occupational Health and Safety Act, Act 85 of 1993 –Section 8 - Regulations For Hazardous Biological Agents - Department Of Health National Norms and Standards Relating to Environmental Health In Terms of National Health Act, 2003 (Act No 61 Of 2003) - Toilet and Ablution Facilities - Adequate sanitation and hand-washing facilities must be available on the premises for use by employees, in accordance with Parts F, P and Q of the SANS 10400.	- The administrative office kitchen and ablution facilities are cleaned regularly throughout the day. - The current cleaning methodology within the shower facility requires review. A heavily contaminated broom was observed being used to clean the floors. The poor condition of this equipment significantly compromises cleaning effectiveness and may result in the redistribution of contaminants rather than their removal. - It is recommended that cleaning equipment be subject to routine inspection, maintenance, and replacement where necessary. Appropriate cleaning tools and	- The company is currently building new accommodation facilities for drivers. - Non-Specific with regard to cleaning methodologies - This survey is to be repeated within a period not exceeding 24 months.	3	2	2	H	12

TABLE 8: HAZARDOUS BIOLOGICAL AGENTS - EFFECTIVENESS OF CLEANING

					Risk Quantification
		- At least 1 (one) toilet facility and 1 (one) hand wash basin must be provided for every 50 employees on the premises. 1(one) urinal must be provided for every 50 employees on the premises. - Hot and cold running water must be provided at every handwash basin. - Toilets must be designated by sex. - The floors of the toilet must be constructed of an easily cleanable surface. - Walls must be constructed of a smooth finish and painted with light-coloured washable paint. - Toilet facilities must always be kept clean and provided with adequate toilet paper, soap, and drying towels. - Toilet facilities must always be maintained in good working order and in good repair.	standardised cleaning procedures should be implemented to ensure effective hygiene control. - The older shower facilities located below the administrative offices are unsuitable for use. ◦ Several tiles are broken, posing both hygiene and safety risks. ◦ Floors are heavily soiled and in a severely unsanitary condition.		

TABLE 8: HAZARDOUS BIOLOGICAL AGENTS - EFFECTIVENESS OF CLEANING

					Risk Quantification
		- Toilet facilities must be adequately ventilated and illuminated in accordance with the provision of Part O of the National Building Regulations. Associated Health Impact: - Bacteria, infections, and germs spread quickly and further in a dirty work environment. So, it goes without saying that employees are exposed to different potential illnesses if the workplace is dirty.			

TABLE 8: HAZARDOUS BIOLOGICAL AGENTS - EFFECTIVENESS OF CLEANING	
	Risk Quantification
Recommendation(s):	

Housekeeping and Hygiene Management Requirements

1. Cleaning Programme Implementation
Cleaning of the facility must be conducted in accordance with a documented and approved Cleaning Programme. The programme should clearly define:

- Cleaning frequencies (daily, weekly, monthly)
- Responsible persons Approved cleaning agents and disinfectants
- Cleaning methods and procedures
- Verification and record-keeping requirements

2. Shower Facility Hygiene
The shower facility was observed to be washed using severely contaminated equipment and dirty water. This practice poses a significant cross-contamination risk and may increase exposure to biological hazards.

- Dedicated, clean equipment must be used exclusively for ablution areas.
- Potable or clean water must be used at all times.
- Cleaning tools must be cleaned, disinfected, and stored hygienically after use.

Photo 10 Old Ablution facility not suitable for use. Severely dirty and dilapidated.

Photo 11 Shower Facility being washed with severely dirty equipment and water

3. Hazardous Biological Agent (HBA) Management Plan
A formal Hazardous Biological Agent Management Plan must be developed and implemented. The plan should include:

- Identification of biological hazards
- Risk assessment and exposure evaluation
- Control measures (engineering, administrative, and PPE)
- Decontamination procedures
- Waste management protocols
- Medical surveillance (where applicable)

TABLE 8: HAZARDOUS BIOLOGICAL AGENTS - EFFECTIVENESS OF CLEANING	
	Risk Quantification

- Incident reporting and response procedures

4. Training of Personnel
All relevant personnel must receive training on:

- The approved Cleaning Programme
- Correct use and dilution of cleaning chemicals
- Prevention of cross-contamination
- Biological hazard awareness
- Safe waste handling practices

Training should be documented and refreshed periodically.

5. Deep Cleaning Procedures
A scheduled deep-cleaning programme must be implemented to address high-risk and hard-to-reach areas. This should include:

- Disinfection of high-touch surfaces
- Drain and floor sanitation
- Periodic sanitation verification
- Record-keeping of deep-clean activities

TABLE 8: HAZARDOUS BIOLOGICAL AGENTS - EFFECTIVENESS OF CLEANING

Risk Quantification

Corrective Action Plan

Subject: Hygiene and Ablution Facilities – Cleaning and Infrastructure Non-Conformance

No.	Finding	Risk	Corrective Action Required	Responsible Person	Priority	Target Date
1	Cleaning of kitchen and ablution facilities conducted regularly; however, shower cleaning methodology is inadequate.	Ineffective hygiene control and potential microbial contamination.	Review and formalise cleaning procedures. Develop written SOP for cleaning of ablutions and shower facilities, including defined frequency, approved detergents/disinfectants, and method statements.	HSE / Facilities Manager	High	14 days
2	Heavily contaminated broom used for shower floor cleaning.	Redistribution of contaminants; reduced cleaning effectiveness; increased hygiene risk.	Immediately remove and dispose of contaminated cleaning equipment. Procure appropriate colour-coded, washable/disinfectable cleaning tools. Implement routine inspection and replacement schedule.	Facilities Supervisor	Immediate	Immediate
3	No documented inspection and maintenance programme for cleaning equipment.	Continued use of ineffective or contaminated tools; hygiene non-compliance.	Implement cleaning equipment inspection checklist and register. Conduct weekly inspections and maintain documented records.	Facilities Supervisor	Medium	30 days
4	Old shower facilities below administrative offices unsuitable for use.	Hygiene risk, potential slip/trip hazards, non-compliance with workplace health standards.	Immediately restrict access to unfit shower facilities. Conduct formal condition assessment and determine whether renovation or permanent decommissioning is required.	Operations / Facilities Manager	High	Immediate restriction; assessment within 14 days
5	Broken tiles and severely soiled flooring in old shower facilities.	Slip/trip hazards; harbourage of contaminants; structural deterioration.	Repair or replace broken tiles. Deep clean and sanitise floors. Where deterioration is extensive, schedule refurbishment or upgrade project.	Engineering / Maintenance	High	30–60 days
6	No verification of cleaning effectiveness.	Inability to confirm hygiene control measures are effective; potential ongoing contamination risk.	Implement cleaning effectiveness monitoring programme, including surface swab testing (ATP or microbiological testing) conducted at least twice per year. Document results, investigate deviations, and implement corrective measures where hygiene thresholds are exceeded.	HSE Manager / Occupational Hygienist	High	Within 3 months; thereafter biannually

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TABLE 9: ILLUMINATION – OFFICES

Area and/or Process Evaluated	HEG) and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
Reinhardt Transport - Durban	- Administrative Offices	Risk: Illumination – Offices: - Environmental Regulations for Workplaces – Sec 3 C - South African National Standard (SANS) 10114-1 - Health and Safety (Display Screen Equipment) Regulations 1992 & 2002 (Health and Safety Executive in HSG 38: Lighting at Work) - Administrative (Computer and business machine operations) > 500 Lux on the work plane. Associated Health Impact: - Low light conditions will lead to a dangerous situation not recognised,	- Employees' working areas are illuminated using evenly distributed down lights. - Down Lights - The illumination levels in most of the administrative offices are below the legal requirement of 500 Lux. - Several defective lights were observed.	- Office lighting has been installed at individual workstations. - Natural light within the offices provides adequate supplementary illumination; however, it also contributes significantly to glare and surface reflections. - An illumination survey must be conducted to quantify artificial lighting levels in accordance with the Physical Agents Regulations (Illumination). - The illumination survey must be repeated at intervals not exceeding 24 months to ensure ongoing compliance.	3	1,5	2	M	9

TABLE 9: ILLUMINATION – OFFICES									
					Risk Quantification				
Area and/or Process Evaluated	HEG) and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score
		with a corresponding decrease in an individual's reaction time							
Observation(s) and Photo(s):									

TABLE 9: ILLUMINATION – OFFICES

Area and/or Process Evaluated	HEG) and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
Photo 12 Low level of light intensity in the office.			Photo 13 - Low illumination levels were observed at this workstation. Openable windows are available and may assist in increasing natural light penetration where required. Adjustable blinds are installed and can be used to regulate the amount of incoming light, thereby assisting in controlling glare and surface reflections.	Photo 14 - Natural light is providing good quality light to the work environment. Artificial; illumination levels are low,					

RECOMMENDATION:

1. Lighting Assessment

- Conduct baseline illumination surveys to quantify lighting levels at all workstations.
- Compare measured lux levels against applicable regulatory and task-specific requirements.
- Identify areas of low illumination and excessive glare.

2. Control of Natural Light

- Utilise adjustable blinds to regulate incoming daylight.
- Position workstations to minimise glare and reflections from windows.
- Ensure openable windows are used appropriately to optimise natural light without creating visual discomfort.

3. Artificial Lighting Management

- Ensure adequate task lighting is installed where required.
- Replace defective or flickering light fittings promptly.
- Maintain uniform lighting distribution to prevent contrast imbalance.

4. Glare and Reflection Control

- Reposition screens were necessary.
- Installing anti-glare filters if required.
- Adjust blinds and workstation orientation to reduce reflected light on display screens.

5. Maintenance Schedule

- Implement routine inspection and maintenance of lighting systems.
- Clean light fittings regularly to maintain output efficiency.
- Document all maintenance activities.

6. Monitoring and Review

- Repeat illumination surveys at intervals not exceeding 24 months, or sooner if changes occur.
- Maintain survey records and corrective action documentation.
- Review the programme periodically to ensure ongoing compliance.

TABLE 9: ILLUMINATION – OFFICES

Area and/or Process Evaluated	HEG) and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score

Corrective Action Plan

Subject: Illumination and Lighting Management Non-Conformances

No.	Finding	Risk	Corrective Action Required	Responsible Person	Priority	Target Date
1	Low illumination levels measured at specific workstation	Eye strain, visual fatigue, reduced productivity, regulatory non-compliance	Install additional task lighting or upgrade existing fittings to achieve required lux levels as per Physical Agents Regulations (Illumination).	Facilities / Maintenance	High	14 days
2	Excessive glare and reflections from natural light sources	Visual discomfort, headaches, reduced screen visibility	Implement glare control measures including adjustment of blinds, repositioning of workstations, and optimisation of screen orientation.	Facilities / Supervisor	Medium	14 days
3	No formal Illumination Management Programme in place	Inconsistent lighting control and lack of monitoring	Develop and implement a documented Illumination Management Programme including assessment, maintenance, glare control and review procedures.	HSE / Facilities Manager	High	30 days
4	No documented illumination survey conducted	Inability to verify compliance with regulatory requirements	Conduct a formal illumination survey to quantify artificial lighting levels in accordance with Physical Agents Regulations (Illumination).	Occupational Hygiene / HSE	High	30 days
5	No periodic re-assessment of lighting levels	Gradual deterioration of lighting conditions	Repeat illumination survey at intervals not exceeding 24 months or after significant changes to layout or lighting systems. Maintain records of all surveys.	HSE	Medium	Ongoing (24 months)

TABLE 10: ILLUMINATION – WORKSHOP

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
Reinhardt Transport - Durban Site	- Workshop	Risk: Illumination – Workshop - Environmental Regulations for Workplaces – Sec 3 C - South African National Standard (SANS) 10114-1 - Health and Safety (Display Screen Equipment) Regulations 1992 & 2002 (Health and Safety Executive in HSG 38: Lighting at Work) Workshop, Store, and Inspection areas must be > 200 Lux. Associated Health Impact: - Low light conditions will lead to a dangerous situation not recognised, with a corresponding decrease in an individual's reaction time	- The illumination in the Workshop does not comply with the > 200 Lux. - In this work area employees are employees are changing truck tyres from and onto rims	- None relating to illumination of the workshop. - This survey is to be repeated within a period not exceeding 24 months.	3	2	2,5	H	15

TABLE 10: ILLUMINATION – WORKSHOP

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

Observation(s) and Photo(s):

Photo 15 Workshop illumination levels are below the required 200 Lux

Photo 16 The Workshop is also making use of natural light via translucent wall panels

TABLE 10: ILLUMINATION – WORKSHOP

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

Recommendation(s):

Implementation of an Illumination Management System

Due to identified low light levels within the workshop and the requirement to maintain illumination levels of **≥ 200 lux**, an **Illumination Management System** must be formally implemented.

1. Objective

To ensure adequate lighting levels are maintained across all work areas in order to:

- Prevent eye strain and visual fatigue
- Reduce the risk of accidents and errors
- Ensure compliance with applicable regulatory requirements
- Maintain consistent lighting quality over time

2. System Components

The Illumination Management System must include:

2.1 Baseline Assessment

- Conduct a formal illumination survey to measure lux levels in all workshop and task-specific areas.
- Compare measured values against the minimum requirement of 200 lux (or higher where task demands justify it).
- Document findings and identify non-compliant areas.

2.2 Corrective Engineering Measures

TABLE 10: ILLUMINATION – WORKSHOP

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

- Upgrade or install additional light fittings where required.
- Replace defective or degraded lamps.
- Improve light distribution to reduce shadows.
- Clean luminaires to restore output efficiency.

2.3 Preventative Maintenance Programme

- Implement a scheduled inspection and maintenance plan.
- Replace lamps before end-of-life where performance declines.
- Clean lighting fixtures periodically.
- Maintain a lighting asset register.

2.4 Glare and Shadow Control

- Assess for excessive contrast, glare, and shadowing.
- Reposition lighting or adjust layout where necessary.

2.5 Monitoring and Review

- Repeat illumination surveys at intervals not exceeding 24 months or after significant layout changes.
- Maintain documented records of surveys and corrective actions.
- Review lighting performance during routine HSE inspections.

TABLE 10: ILLUMINATION – WORKSHOP

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

3. Responsibilities

- Facilities/Maintenance: Lighting upgrades and maintenance
- HSE/Occupational Hygiene: Surveys, compliance verification, and programme oversight
- Supervisors: Ongoing monitoring of lighting conditions

4. Documentation and Records

The following must be maintained:

- Illumination survey reports
- Maintenance records
- Corrective action tracking
- Review and audit documentation

TABLE 10: ILLUMINATION – WORKSHOP

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

Corrective Action Plan

Subject: Inadequate Illumination – Workshop Area

No.	Finding	Risk	Corrective Action Required	Responsible Person	Priority	Target Date
1	Low light levels measured inside the workshop (below 200 lux requirement)	Eye strain, visual fatigue, reduced task accuracy, increased accident risk	Conduct a formal illumination survey to measure and document lux levels at task areas in accordance with applicable regulations.	HSE / Occupational Hygiene	High	14 days
2	Illumination below minimum requirement of 200 lux	Increased risk of errors, trips, improper equipment handling	Upgrade lighting system to achieve minimum 200 lux in general workshop areas and higher where task-specific work requires it.	Facilities / Maintenance	High	30 days
3	No formal Illumination Management Programme in place	Ongoing deterioration of lighting conditions and lack of compliance monitoring	Develop and implement a documented Illumination Management Programme covering assessment, maintenance, glare control, and periodic review.	HSE / Facilities Manager	High	30 days
4	No periodic re-assessment of lighting levels	Gradual reduction in compliance due to lamp degradation	Implement a 24-monthly illumination survey schedule or reassess after layout or lighting changes. Maintain documented records.	HSE	Medium	Ongoing

Illumination Management Programme Requirements

The programme should include:

- Baseline and periodic illumination surveys
- Identification of minimum lux requirements per task (≥ 200 lux for general workshop areas)
- Maintenance and replacement schedule for fittings
- Cleaning of luminaires to maintain output efficiency
- Monitoring of glare and shadowing
- Record-keeping and review procedures

Risk Level Prior to Control: Medium to High
Expected Residual Risk After Controls: Low

TABLE 11: ILLUMINATION – COMPONENT CONTAINERS IN THE WORKSHOP

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
Reinhardt Trucks Durban	- Workshop Container Storage Units	Risk: Illumination – Workshop - Environmental Regulations for Workplaces – Sec 3 C - South African National Standard (SANS) 10114-1 - Health and Safety (Display Screen Equipment) Regulations 1992 & 2002 (Health and Safety Executive in HSG 38: Lighting at Work) Workshop, Store, and Inspection areas must be > 200 Lux. Associated Health Impact: - Low light conditions will lead to a dangerous situation not recognised, with a corresponding decrease in an individual's reaction time	- The illumination in the Container storage units comply with the > 100 Lux. - Illumination in the tyre storage container does not comply. Natural light helps illumination level when the container doors are open. Installation of additional lights is crucial for compliance.	- Illumination in these containers comply with the required illumination levels - This survey is to be repeated within a period not exceeding 24 months.	3	1,5	2	M	9

TABLE 11: ILLUMINATION – COMPONENT CONTAINERS IN THE WORKSHOP

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

Observation(s) and Photo(s):

Photo 19 This container stores illumination level comply with 75 Lux requirement

Photo 17 Illumination levels in this Container workshop store complies with 100 lux requirements

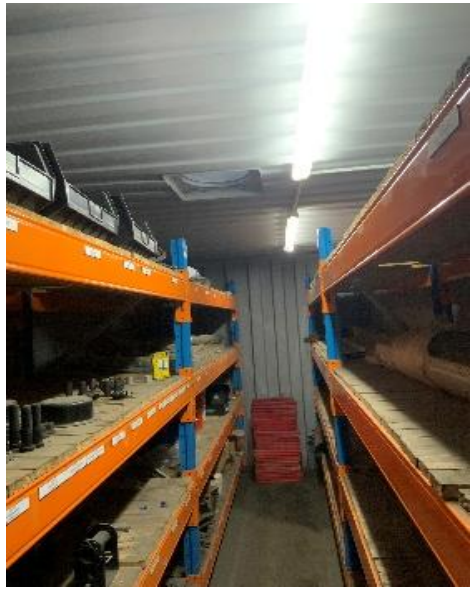

Photo 18 Illumination in this storage container in the Workshop complies with 100 Lux requirement for component storage

Photo 22 Illumination of the tyre container storage unit does not comply

TABLE 11: ILLUMINATION – COMPONENT CONTAINERS IN THE WORKSHOP

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

Recommendation(s):

Implementation of an Illumination Management System

Due to identified low light levels within the tyre storage container the requirement to maintain illumination levels of **≥ 100 lux**, an **Illumination Management System** must be formally implemented.

1. Objective

To ensure adequate lighting levels are maintained across all work areas in order to:

- Prevent eye strain and visual fatigue
- Reduce the risk of accidents and errors
- Ensure compliance with applicable regulatory requirements
- Maintain consistent lighting quality over time

2. System Components

The Illumination Management System must include:

2.1 Baseline Assessment

- Conduct a formal illumination survey to measure lux levels in all workshop and task-specific areas.
- Compare measured values against the minimum requirement of 200 lux (or higher where task demands justify it).
- Document findings and identify non-compliant areas.

2.2 Corrective Engineering Measures

TABLE 11: ILLUMINATION – COMPONENT CONTAINERS IN THE WORKSHOP

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

- Upgrade or install additional light fittings where required.
- Replace defective or degraded lamps.
- Improve light distribution to reduce shadows.
- Clean luminaires to restore output efficiency.

2.3 Preventative Maintenance Programme

- Implement a scheduled inspection and maintenance plan.
- Replace lamps before end-of-life where performance declines.
- Clean lighting fixtures periodically.
- Maintain a lighting asset register.

2.4 Glare and Shadow Control

- Assess for excessive contrast, glare, and shadowing.
- Reposition lighting or adjust layout where necessary.

2.5 Monitoring and Review

- Repeat illumination surveys at intervals not exceeding 24 months or after significant layout changes.
- Maintain documented records of surveys and corrective actions.
- Review lighting performance during routine HSE inspections.

TABLE 11: ILLUMINATION – COMPONENT CONTAINERS IN THE WORKSHOP

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

3. Responsibilities

- Facilities/Maintenance: Lighting upgrades and maintenance
- HSE/Occupational Hygiene: Surveys, compliance verification, and programme oversight
- Supervisors: Ongoing monitoring of lighting conditions

4. Documentation and Records

The following must be maintained:

- Illumination survey reports
- Maintenance records
- Corrective action tracking

TABLE 12: INDOOR AIR QUALITY - OFFICES

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
Reinhardt Trucks Durban	- Administrative Offices	Risk: Indoor Air Quality Standards: - Occupational Health and Safety Act, act no 85 of 1985 - Environmental regulation – Ventilation - National Building Regulation - ASHRAE Standard 55 and - ASHRAE Standard 62 Indoor Parameters: - Temperature - Carbon Dioxide Sources - Carbon Monoxide Sources - Formaldehyde Sources - Nitrogen Oxides Sources - Ozone Sources - Volatile Organic Compounds Associated Health Impacts:	- Split unit conditioning systems are used to maintain the indoor environment in offices. - The offices' ventilation speeds are below the required guidelines. - There is no Indoor Air Quality Survey conducted on site yet	- Split Unit Air Conditioners are installed in the administrative offices	3	2	1.5	M	9

TABLE 12: INDOOR AIR QUALITY - OFFICES

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score
		- Respiratory Issues - Sick Building Syndrome (SBS) - Mould and Fungal Growth - Carbon Dioxide (CO_2) Build-up - Indoor Air Pollution - Increased Allergens3 - Exacerbation of Cardiovascular Conditions - Fatigue and Decreased Productivity - Odour Buildup - Vulnerable Groups							

TABLE 12: INDOOR AIR QUALITY - OFFICES

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

Observation(s) and Photo(s):

Photo 21 Temperature levels within the work environment is regulated with installed split units. Ventilation rate is very low.

Photo 19 Split Unit installed against the wall.

Photo 20 A through the wall air-conditioning system installed.

Recommendation(s):

Indoor Air Quality (IAQ) Management System - Office Environment

1. Purpose

To ensure that indoor environmental conditions remain within acceptable health and comfort limits, prevent accumulation of indoor contaminants, and ensure compliance with the Physical Agents Regulations (PAR).

2. Environmental Control Parameters

The following minimum environmental standards shall be maintained:

2.1 Temperature

- Maintain indoor temperature between 20°C and 28°C.

2.2 Carbon Monoxide (CO)

- CO levels must be always maintained at less than 10 ppm.

2.3 Carbon Dioxide (CO_2)

- CO_2 levels must not exceed 600 ppm above ambient outdoor levels, as an indicator of adequate ventilation.

2.4 Relative Humidity (RH)

- Maintain relative humidity between 30% and 60%.

2.5 Air Velocity (Ventilation)

- Maintain airflow velocity between 0.1 m/s and 0.5 m/s in accordance with PAR ventilation guidelines.

3. Ventilation Requirements

- Ensure continuous supply of fresh air to prevent build-up of indoor contaminants.
- HVAC systems must be capable of providing sufficient air exchanges.
- Air intake vents must not be obstructed.
- Ventilation effectiveness must be periodically assessed.

4. Temperature Control Policy

Once mean office temperature levels are established:

- Thermostat settings may not be adjusted based on individual preference.
- Employees must manage personal thermal comfort through clothing adjustments (e.g., wearing a jacket instead of increasing heating).
- Access to thermostat controls must be restricted where necessary.

5. Monitoring and Measurement

The following monitoring programme must be implemented:

- Periodic measurement of temperature, CO, CO_2, humidity, and airflow velocity.
- CO_2 monitoring in high-occupancy areas.
- Immediate investigation of where limits are exceeded.
- Record-keeping of all monitoring results.

6. Preventative Maintenance

- Scheduled HVAC inspections and servicing.
- Filter cleaning/replacement.
- Verification of airflow distribution.
- Calibration of monitoring instruments.
- Maintenance records are retained for audit purposes.

7. Training and Awareness

Employees must be informed and trained on:

- The importance of ventilation in preventing indoor contaminant build-up.
- Not obstructing vents or air returns.
- Adhering to temperature control policies.

TABLE 12: INDOOR AIR QUALITY - OFFICES

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

- Reporting discomfort or ventilation concerns.

Training records must be maintained.

8. Review and Continuous Improvement

- Conduct annual review of IAQ performance.
- Reassess following building layout changes or occupancy increases.
- Update system where regulatory changes occur.

Expected Outcomes

- Controlled indoor contaminant levels
- Improved thermal comfort
- Reduced complaints
- Regulatory compliance
- Enhanced employee wellbeing

TABLE 12: INDOOR AIR QUALITY - OFFICES

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score

Corrective Action Plan

Subject: Office Ventilation & Indoor Air Quality (IAQ) Non-Conformance

No.	Finding	Risk	Corrective Action Required	Responsible Person	Priority	Target Date
1	Split unit air conditioning systems used as primary environmental control	Insufficient fresh air supply; potential CO_2 build-up; poor air circulation	Assess current HVAC design to determine fresh air intake provision and compliance with ventilation guidelines.	Facilities / HVAC Contractor	High	14 days
2	Ventilation speeds below recommended guidelines	Stale air, thermal discomfort, reduced concentration, Sick Building Syndrome (SBS) symptoms	Measure airflow rates and compare to recommended standards; adjust system balancing or upgrade ventilation capacity.	HVAC Contractor	High	30 days
3	No Indoor Air Quality (IAQ) survey conducted	Undetected air contaminants (CO_2, VOCs, particulate matter); regulatory non-compliance	Conduct comprehensive IAQ survey including CO_2, temperature, relative humidity, airflow, and airborne contaminants.	HSE Practitioner / IAQ Specialist	High	30 days
4	No documented ventilation performance records	Inability to verify compliance	Implement routine HVAC inspection and airflow measurement programme. Maintain records.	Facilities	Medium	Ongoing
5	No preventative maintenance programme for split units	Microbial growth, poor filtration efficiency	Establish scheduled cleaning and filter replacement programme for all split units.	Maintenance	High	14 days

TABLE 13: HEAT STRESS

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
Reinhardt Trucks Durban	Truck washing employees	Risk: Heat Stress: - The Occupational Health and Safety Act, Act No 85 of 1993, Requires all employers to provide and maintain a safe working environment without risk to the health of their employees. - Subsequently, the following statutory requirements and recommended guidelines were used to evaluate the results and findings of this Heat Stress Survey as well as the Physical Agents Regulations for Workplaces – Thermal Environments (TWA WBGT index – ISO 7243 Estimation of the Heat Stress on Working Man, based on the WBGT-index (wet bulb globe temperature).	- During the period December through February, very high-temperature levels exist, with the main affecting contributor being radiant heat and high percentage relative humidity (%RH) - Heat Stress Conditions can be expected to occur occasionally during these periods. - Employees that are doing truck washing of the trucks are exposed to radiant heat conditions.	- Trained first aiders are available. - An eating area is provided. Employees are making use of the workshop area	3	1,5	2	M	9

TABLE 13: HEAT STRESS

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score
		Associated Health Impact: Climate change poses many risks to human health. Some health impacts of climate change. - Heat stress occurs when the body is unable to regulate its temperature effectively in hot and humid environments. - Heat Exhaustion - Heat Stroke - Heat Cramps - Dehydration - Heat Rash - Long-term Effects - Vulnerable Populations Heat stress can be dangerous. However, with the appropriate precautions, many of							

TABLE 13: HEAT STRESS

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
		the negative effects can be avoided or mitigated.							

Recommendation(s):

Heat Stress Control Programme:

1. Prevent heat-related illnesses and ensure that employees working in hot environments are protected from excessive thermal strain.

2. Risk Identification

Heat stress may occur due to:
- High ambient temperature
- High humidity
- Radiant heat sources
- Poor ventilation
- High physical workload
- Inadequate hydration

Potential health effects include:
- Heat exhaustion
- Heat cramps
- Heat syncope
- Heat stroke (medical emergency)
- Reduced concentration leading to accidents

5. Monitoring Programme (Occupational Hygiene Sampling and monitoring)

- Conduct periodic temperature and humidity measurements.
- Monitor employees for early signs of heat stress.
- Record heat-related complaints and incidents.
- Escalate controls during heat waves or extreme seasonal conditions.

6. Training and Awareness

Employees must be trained on:
- Symptoms of heat stress
- Importance of hydration
- Reporting early symptoms
- Safe work-rest practices
- Responsibilities under the Physical Agents Regulations

Supervisors must be trained to recognise early warning signs.

7. Emergency Response

- Immediate removal of affected employees from hot environment.

3. Risk Assessment

The employer must:

- Conduct a thermal stress risk assessment.
- Measure environmental conditions (temperature, humidity, air velocity).
- Assess workload intensity.
- Identify vulnerable employees (new workers, underlying medical conditions).

Where required, Wet Bulb Globe Temperature (WBGT) measurements should be conducted.

4. Control Measures (Hierarchy of Controls)

4.1 Engineering Controls (Primary Control)

- Provide an area (not under the tree) where people can sit and cool off
- Improve ventilation and airflow (0.1 – 0.5 m/s where applicable).
- Provide shading from radiant heat sources.
- Insulate hot surfaces.
- Reduce radiant heat exposure.

4.2 Administrative Controls

- Implement work-rest cycles based on heat exposure levels.
- Schedule heavy work during cooler times of day.
- Rotate workers to reduce exposure duration.
- Introduce acclimatisation programme for new employees.

4.3 Hydration Controls

- Provide cool, potable drinking water at accessible locations.
- Encourage regular hydration (small amounts frequently).
- Prohibit dehydration practices.

4.4 Personal Protective Measures

- Provide lightweight, breathable PPE where compatible with safety requirements.
- Provide cooling vests where necessary.
- Cool the individual (shade, hydration, cooling methods).
- Seek medical assistance for suspected heat stroke (medical emergency).

8. Documentation

Maintain:

- Heat stress risk assessments
- Monitoring records
- Training records
- Incident reports
- Review documentation

Expected Outcome

- Reduced heat-related illness
- Improved productivity
- Compliance with Physical Agents Regulations
- Improved worker wellbeing

TABLE 13: HEAT STRESS

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score

Corrective Action Plan

Subject: Heat Stress Risk – Truck Washing Area

No.	Finding	Risk	Corrective Action Required	Responsible Person	Priority	Target Date
1	High ambient temperatures during December–February with high %RH and radiant heat	Heat exhaustion, heat cramps, dehydration, reduced concentration	Conduct formal heat stress assessment (WBGT measurement) during peak summer months.	HSE Practitioner	High	Before peak season
2	Employees exposed to radiant heat while washing trucks	Increased core body temperature; risk of heat stroke	Install shade structures or canopies over truck washing area to reduce radiant heat exposure.	Facilities	High	60 days
3	No structured Heat Stress Management Programme	Inconsistent control measures; regulatory non-compliance	Develop and implement Heat Stress Management Procedure (monitoring, hydration, acclimatisation, emergency response).	HSE	High	30 days
4	Prolonged exposure without structured rest cycles	Fatigue, reduced productivity, increased accident risk	Implement work-rest cycles based on WBGT readings and workload category.	Line Supervisor	High	Immediate (seasonal)
5	No documented hydration protocol	Dehydration risk	Provide cool potable drinking water close to work area; enforce hydration breaks.	Supervisor	High	Immediate
6	Lack of employee training on heat stress symptoms	Delayed reporting; increased medical severity	Conduct heat stress awareness training before summer season.	HSE / HR	Medium	Before December
7	No medical monitoring during high-risk months	Undetected early symptoms	Implement seasonal symptom screening and incident reporting system.	Occupational Health Practitioner	Medium	Seasonal

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TABLE 14: HAZARDOUS CHEMICAL AGENTS - STORAGE AND LABELLING OF CHEMICALS

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
Reinhardt Trucks	- Hazardous Chemical Agents Use and Storing	Risk: Storage of Chemicals - Occupational Health and Safety Act, Act No 85 of 1993 - Hazardous Chemical Agent Regulation - Sections 3 (f) Storage and storage procedures - 14A Safety Data Sheets - 14B Labelling and handling information for storing any hazardous material can be found on its safety data sheet (SDS) Associated Impacts of Improper Storage: - Off gassing from volatile open containers and wet rags - Contamination - Fires	- Chemicals are being stored in the eating area aswell as the workshop administrative offices. - Label do not correspond to the true content of the container	- None Relating to storage and labelling	3	2	2	H	12

TABLE 14: HAZARDOUS CHEMICAL AGENTS - STORAGE AND LABELLING OF CHEMICALS

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score
		- Spills - Gas releases - Toxic exposures							

Observation(s) and Photo(s):

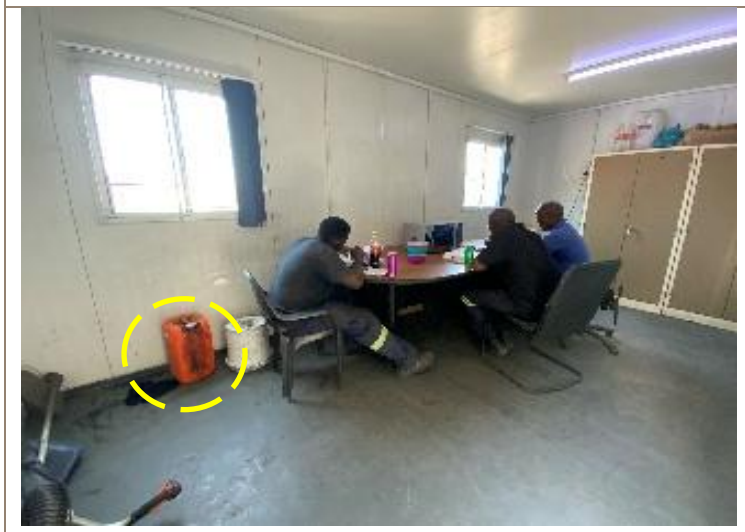

Photo 22 The containers in the photos have fuel in for the bush cutters that are also stored in the eating area. The container indicates INDY OIL.

TABLE 14: HAZARDOUS CHEMICAL AGENTS - STORAGE AND LABELLING OF CHEMICALS

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

Recommendation(s):

Train employees in the correct and safe work practices of storage and labelling:

Chemicals must be stored at:

- Appropriate temperature and humidity levels can be problematic, especially in hot, humid climates.
- Chemicals should not be stored near heat sources. Chemicals should never be stored in direct sunlight.
- No product without any label should be used and may not be stored
- According to the Hazardous Chemical Agent Regulations, the following w.r.t storage and Labelling:
- 14A Safety data sheets,(3) The information in the GHS compliant safety data sheet must be presented using the following 16 headings in the order given below, as may be updated from time to time:
    - Section 1: Identification of the substance/mixture and the company/undertaking.
    - Section 2: Hazards identification.
    - Section 3: Composition/information on ingredients.
    - Section 4: First aid measures.
    - Section 5: Firefighting measures.
    - Section 6: Accidental release measure.
    - Section 7: Handling and storage.
    - Section 8: Exposure controls/personal protection.

TABLE 14: HAZARDOUS CHEMICAL AGENTS - STORAGE AND LABELLING OF CHEMICALS

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

- Section 9: Physical and chemical properties.
- Section 10: Stability and reactivity.
- Section 11: Toxicological information.
- Section 12: Ecological information.
- Section 13: Disposal considerations.
- Section 14: Transport information.
- Section 15: Regulatory information; and
- Section 16: Other information.

- 14B. Labelling of hazardous chemical agents, (1) (d) an employer must (ii) ensure that a container labelled for an HCA is used for only the use, handling or storage of that HCA
- 14B. Labelling of hazardous chemical agents (2) Subject to the provisions of sub-regulation (1), an HCA is correctly labelled if the selection and use of label elements are in accordance with the GHS hazard classification and if the HCA is packed in a container that has a label that includes elements (i) – (v)

TABLE 14: HAZARDOUS CHEMICAL AGENTS - STORAGE AND LABELLING OF CHEMICALS

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

Corrective Action Plan

Subject: Chemical Storage & GHS Labelling Non-Compliance

No.	Finding	Risk	Corrective Action Required	Responsible Person	Priority	Target Date
1	Chemicals stored in eating areas and workshop administrative offices	Ingestion risk, contamination of food areas, inhalation exposure	Immediately remove all chemicals from eating areas and administrative offices. Store only in designated, ventilated chemical storage areas.	Supervisor / Stores	Immediate	Immediate
2	No designated chemical storage area identified	Uncontrolled exposure; spill risk	Establish compliant chemical storage area with ventilation, spill containment, and segregation of incompatible substances.	Facilities / HSE	High	30 days
3	Labels do not correspond to actual contents of containers	Misuse, incorrect emergency response, poisoning risk	Conduct full chemical inventory verification and relabel all containers in accordance with GHS requirements.	HSE / Stores	High	14 days
4	Non-compliance with GHS labelling requirements	Legal non-compliance; enforcement action risk	Ensure all containers display compliant GHS labels including pictograms, signal words, hazard statements, precautionary statements, and supplier details.	HSE	High	14 days
5	No updated Safety Data Sheets (SDS) readily available	Delayed emergency response	Obtain and file updated SDS (not older than 5 years) for all chemicals and make accessible to employees.	HSE	High	14 days
6	Lack of employee training on hazardous chemical handling	Incorrect storage, handling and spill response	Conduct Hazardous Chemical Agents training aligned to current regulations. Maintain attendance records.	HSE / HR	Medium	30 days
7	No documented chemical risk assessment	Unidentified exposure risks	Conduct Hazardous Chemical Agents Risk Assessment and implement control measures.	Occupational Hygienist	High	30 days

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TABLE 15: NOISE-INDUCED HEARING LOSS:

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
Reinhardt Trucks	Workshop: - 10-pound hammers - Compressed air systems - Pneumatic torque tools - Use of tools to remove tyres from rims, with components dropped onto the floor - Noise generated when tyre rims fall onto the floor	Risk: Noise: - Occupational Health and Safety Act, Act 85 of 1993 - Legal Reference: Noise Exposure Regulation. - Noise Rating Limit (NRL) of an 8-hour time-weighted average < 85 dB(A). - < 137 dBC - Action Limit (AL) for noise exposure is ≤ 82 dB(A). Exposure level doses: <84.99 dB(A) – 8 hours ≥88 dB(A) – 4 Hours ≥91 dB(A) – 2 Hours ≥94 dB(A) – 1 Hour ≥97 dB(A) – 30 minutes ≥100 dB(A)– 15 minutes ≥103 dB(A) – 7.5 minutes ≥106 dB(A) - 3 minutes - According to the NIHL Regulation, a worker can be safely exposed to noise	- Noise levels are estimated to be above the Action Level (AL) of 82 dB(A) and the 85 dB(A) noise rating limit for noise 8-hour equivalent noise exposure - All employees working in the workshop are exposed to high noise levels due to the type of work activities taking place. Employees not working with equipment and tasks that make high noise levels, are exposed due to the work they have to do in that area.	- No specific noise control measures in place	3	2	2,5	H	15

TABLE 15: NOISE-INDUCED HEARING LOSS:

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score
	- Impact noise from tools and equipment	levels below an 8-hour equivalent of 85 dB(A). Although a worker may NOT be exposed to 85 dB (A) at any time, the Table above indicates when the daily load is exceeded. Please note that this does not imply a safe time for exposure but instead gives us a clear picture of the actual impact of noise as it gets louder.							

Recommendation(s):

TABLE 15: NOISE-INDUCED HEARING LOSS:

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
1. Noise Identification & Risk Assessment • Identify noise sources (e.g., 10 lb hammers, pneumatic torque tools, impact noise from rims) • Conduct baseline noise surveys (SANS 10083 methodology) – Conducted by a Registered Approved Inspection Authority (AIA) • Personal noise dosimetry • Area noise mapping • Identify exposed employees • Determine exposure vs. Occupational Exposure Limit (85 dBA for 8 hours in SA) **2. Control Measures (Hierarchy of Controls)** **I. Engineering Controls (Preferred)** • Install rubber mats to reduce rim impact noise • Use vibration-damped tools • Install silencers on compressed air systems • Acoustic enclosures for pneumatic equipment • Prevent metal-on-concrete contact **II. Administrative Controls** • Job rotation • Limit exposure duration				**3. Hearing Conservation Programme** • Baseline audiometry (on employment) • Annual audiometric testing • Medical surveillance • Record keeping (minimum 40 years in SA) • Early identification of Standard Threshold Shift (STS) **4. Training & Awareness** • Effects of noise exposure • Correct use of hearing protection • Reporting defective equipment • Impact noise risks • Toolbox talks **5. Monitoring & Review - Occupational Hygiene Noise Exposure Survey** • Repeat surveys after changes • Audit control effectiveness • Incident investigation (if NIHL cases arise) • Continuous improvement **6. Documentation** • Noise Risk Assessment reports					

TABLE 15: NOISE-INDUCED HEARING LOSS:

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification: Frequency	Probability	Severity	Risk Priority	Risk Score
			• Prevent unnecessary dropping of rims • Maintenance program for noisy equipment • Schedule high-noise tasks strategically **III. PPE (Last Resort)** • Issue suitable hearing protection (earplugs/earmuffs) • Ensure correct SNR rating • Fit testing • Enforcement and supervision	• Audiometry records • PPE issue register • Maintenance records • Training records					

TABLE 15: NOISE-INDUCED HEARING LOSS:

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

Corrective Action Plan

Subject: Excessive Occupational Noise Exposure – Workshop Area

No.	Finding	Risk	Corrective Action Required	Responsible Person	Priority	Target Date
1	Noise levels estimated to exceed the Action Level of 82 dB(A) and the 85 dB(A) 8-hour equivalent exposure limit (Leq,8h).	Noise-Induced Hearing Loss (NIHL); regulatory non-compliance; compensation claims.	Conduct baseline occupational noise survey, including personal noise dosimetry to determine actual 8-hour equivalent exposures. Compare results to applicable legal limits.	Occupational Hygienist	High	30 days
2	All workshop employees exposed to elevated noise due to operational activities.	Chronic hearing damage and associated health effects.	Implement engineering controls where practicable (e.g., acoustic enclosures, isolation of noisy equipment, silencers, vibration damping, preventive maintenance to reduce mechanical noise).	Engineering / Operations Manager	High	60–90 days
3	Employees not directly operating noisy equipment still exposed due to shared workspace.	Secondary exposure resulting in unnecessary hearing risk.	Introduce administrative controls such as demarcated high-noise zones, restricted access, job rotation, and scheduling of high-noise tasks during limited occupancy periods.	Operations Manager	Medium	30 days
4	Potential inadequate use or management of hearing protection.	Reduced effectiveness of PPE programme; increased NIHL risk.	Implement mandatory Hearing Conservation Programme (HCP) where exposures exceed 82 dB(A), including provision of suitable hearing protection devices (HPDs), fit testing, training, and supervision.	HSE Manager	High	30 days
5	No documented health surveillance programme confirmed.	Failure to detect early signs of NIHL; legal non-compliance.	Implement audiometric testing programme: baseline audiograms and annual follow-up testing for all exposed employees. Maintain confidential medical records.	Occupational Health Practitioner	High	Within 3 months

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TABLE16: HAND ARM VIBRATION

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
Reinhardt Trucks Durban	- Workshop Mechanic	Risk: Hand Arm Vibration (HAV) - Occupational Health and Safety Act, Act 85 of 1993 –Section 8 - ISO 5349-1: Mechanical vibration — Measurement and evaluation of human exposure to hand-transmitted vibration — Part 1: General requirements - The **Physical Agents Regulations** require employers to control Vibration Best practice is to use **ISO/SANS 5349 exposure action values**. - Many companies align with the **EU Directive 2002/44/EC** guidance values: ○ Exposure Action Value (EAV): **2.5 m/s² A(8)** ○ Exposure Limit Value (ELV): **5.0 m/s² A(8)**	- Torque tool is used when changing tyres. The tool is used to loosen and fasten bolts and nuts	- None observed	3	2	2	H	12

TABLE16: HAND ARM VIBRATION

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score
		Associated Health Impacts: Hand–arm vibration can cause **Hand–Arm Vibration Syndrome (HAVS)**, which includes: 1. **Vascular effects** • Fingers turning white in the cold (similar to Raynaud's phenomenon) • Reduced blood flow • Pain when circulation returns **2. Neurological effects** • Tingling and numbness • Burning sensations • Reduced feeling in fingers • Loss of fine motor control **3. Musculoskeletal effects** • Weak grip strength • Joint stiffness • Hand and forearm pain							

TABLE16: HAND ARM VIBRATION

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

Observation(s) and Photo(s):

Photo 23 the employee is making use of a torque tool to fasten tyre nuts. Creating very high noise and vibration levels.

Photo 24 Noise, Vibration and Ergonomics in the form of awkward posture are the risks having an impact on this employee in this photo

Recommendation(s):

Managing Hand–Arm Vibration (HAV)
Effective management focuses on **measurement, control, and medical surveillance** to prevent Hand–Arm Vibration Syndrome (HAVS).

1. **Assess the Risk**

- Identify vibrating tools (grinders, impact wrenches, pneumatic hammers)
- Measure vibration levels according to **ISO 5349-1**
- Calculate daily exposure **A(8)**
- Compare to:
  - **2.5 m/s²** (Action Level)
  - **5.0 m/s²** (Limit Value – international best practice)

2. **Apply the Hierarchy of Controls**

I. **Engineering Controls (Most Effective)**

- Purchase low-vibration tools
- Maintain and balance tools regularly
- Fit anti-vibration handles
- Use sharp cutting bits (reduces force required)
- Install damping materials

II. **Administrative Controls**

- Limit exposure time
- Job rotation
- Keep hands warm (reduce vascular effects)
- Avoid excessive grip force
- Scheduled maintenance programme

III. **PPE (Supplementary Only)**

- Anti-vibration gloves (limited effectiveness)
- Cold-protection gloves
- Gloves **do not eliminate vibration risk**.

3. **Medical Surveillance**

- Baseline screening questionnaire
- Annual HAVS assessment
- Early symptom reporting system
- Remove workers from exposure if symptoms develop

4. **Training & Awareness**
- Symptoms of HAVS
- Correct tool handling techniques
- Importance of reporting tingling/numbness early

5. **Monitor & Review**
- Recalculate A(8) after process changes
- Audit control effectiveness
- Track health trends

6. **Key Principle:**
HAV damage is **cumulative and often irreversible**, but **early control prevents disability**.

TABLE 17: FACILITIES

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
Reinhardt Transport - Durban	- Administrative Offices - Ablutions	Risk: Facilities: - Occupational Health and Safety Act, Act 85 of 1993 – Facilities Regulations, 1990 Every employer shall provide sanitary facilities at the workplace in accordance with the provisions of Parts F, P and Q of the National Building Regulations: - Sanitation - Facilities for Safekeeping - Change-Rooms - Dining-Rooms - Drinking Water - Seats - Condition of Room and Facilities - At least 1 (one) toilet facility and 1 (one) hand wash basin must be	- Office ablution facilities are readily accessible, freely available to employees, and maintained in good working condition. - Office Disposable paper towel dispensers for hand drying are adequately provided and accessible. - Office Kitchen and ablution facilities are cleaned regularly throughout the day in accordance with established hygiene practices. - Workshop - Separate, designated eating areas are provided for employees and are cleaned routinely during the day.	- Old ablution facilities are being replaced with brand-new facilities.	3	2	1,5	M	9

TABLE 17: FACILITIES

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score
		provided for every 50 employees on the premises. 1(one) urinal must be provided for every 50 employees on the premises. - Hot and cold running water must be provided at every handwash basin. - Toilets must be designated by sex. - The floors of the toilet must be constructed of an easily cleanable surface. - Walls must be constructed of a smooth finish and painted with light-coloured washable paint. Toilet facilities must always be kept clean and provided with adequate toilet paper, soap, and drying towels.	- New staff facilities are currently under construction. - The planned development includes individual rooms for employees, each equipped with private bathroom facilities.						

TABLE 17: FACILITIES

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score
		- Toilet facilities must always be maintained in good working order and in good repair. - Toilet facilities must be adequately ventilated and illuminated in accordance with the provision of Part O of the National Building Regulations. Associated Health Impact: - Bacteria, infections, and germs spread quickly and further in a dirty work environment. So, it goes without saying that if the workplace is dirty, employees are exposed to different potential illnesses.							
Recommendation(s):									

Corrective Action Plan

Subject: Hygiene Management, Cleaning Programme & Microbiological Compliance Verification

No.	Finding	Risk	Corrective Action Required	Responsible Person	Priority	Target Date
1	Cleaning activities conducted, but no formal documented cleaning programme in place.	Inconsistent hygiene standards; lack of accountability; audit non-compliance.	Develop and implement a formal Cleaning Programme with defined frequencies, responsibilities, approved chemicals, and documented procedures. Maintain cleaning registers with supervisory sign-off.	HSE Manager / Facilities Manager	High	30 days
2	No structured verification of cleaning effectiveness.	Inability to confirm microbiological compliance; potential undetected contamination.	Implement biannual microbiological surface swab testing programme (minimum twice per year). Establish hygiene acceptance criteria and corrective action triggers.	Occupational Hygienist / HSE Manager	High	Within 3 months
3	High-touch surfaces not formally identified for enhanced cleaning.	Increased risk of microbial transmission in shared facilities.	Identify and list high-touch points (e.g., taps, door handles, switches, toilet flush handles). Increase cleaning frequency and include in daily inspection checklist.	Facilities Supervisor	Medium	14 days
4	No documented trend analysis of hygiene performance.	Recurring hygiene failures not identified or addressed.	Maintain microbiological testing records and conduct trend analysis following each sampling round. Escalate adverse trends to management review.	HSE Manager	Medium	Ongoing after first sampling cycle
5	Cleaning equipment inspection and replacement not formally controlled.	Reduced cleaning effectiveness; cross-contamination risk.	Implement colour-coded cleaning system. Introduce weekly inspection checklist for cleaning tools. Replace worn or contaminated equipment immediately.	Facilities Supervisor	High	14 days
6	New staff facilities under construction without confirmed hygiene commissioning plan.	Risk of occupation before hygiene compliance verification.	Conduct pre-occupation hygiene inspection and baseline microbiological sampling prior to commissioning new facilities.	Project Manager / HSE Manager	Medium	Prior to occupation

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TABLE 18: STORAGE OF HAZARDOUS CHEMICAL SUBSTANCES

Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Risk Quantification				
					Frequency	Probability	Severity	Risk Priority	Risk Score
Reinhardt Trucks	Hazardous Chemical Agents Use and Storing	Risk: Storage of Chemicals Fuel storage installations should comply with: - OHS Act (Act 85 of 1993) - National Environmental Management Act (NEMA) - SANS 10089-1 (Petroleum Industry – Storage and distribution of petroleum products) - Local municipal fire department requirements Key compliance requirements generally include: - Bund capacity ≥ 110% of largest tank volume - Impermeable bund floor and walls	General Description - Large cylindrical steel tank - Surrounded by a low concrete bund wall of which the surface needs to be sealed to enable fluid containment. - Applicable capacity signage not present	- Sealing of bund walls already arranged.	3	1.75	1.75	M	9.19

TABLE 18: STORAGE OF HAZARDOUS CHEMICAL SUBSTANCES

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score
		- Overfill protection system - Proper venting - Fire extinguishers (foam/dry chemical) - Hazard signage (flammable liquid, no smoking) - Earthing and bonding - Spill response equipment - Routine inspection and integrity testing							

Recommendation(s):

- Bund Walls paint is almost off all-over and also some damage to the walls where the cement is chipped off.
- The bund wall must be sealed to ensure that the bunded structure can maintain a certain volume of spillage (110% of the Diesel container)

Photo 25 Damaged bund wall

TABLE 19: HAZARDOUS CHEMICAL AGENT EXPOSURE: EXPOSURE TO DIESEL EXHAUST EMISSIONS (DEE) AND DIESEL PARTICULATE MATTER (DPM)

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score
Reinhardt Trucks	Diesel attendants filling large trucks with Diesel	Risk: Storage of Chemicals - Occupational Health and Safety Act, Act No 85 of 1993 - Hazardous Chemical Agent Regulation - Exposure to Diesel Exhaust Emissions (DEE) and Diesel Particulate Matter (DPM) Associated health impact: - Respiratory irritation - Headaches - Eye irritation - Chronic bronchitis - Reduced lung function - Increased risk of lung cancer (IARC Group 1 carcinogen)	- Employee is filling large trucks with diesel. - The diesel filling area is in the outdoors - Employees are exposed to vehicle gases as well as diesel fumes from the diesel filling process. - Diesel exhaust is classified as a **known human carcinogen**	- Vehicles are not idling during the fill process - Vehicle diesel process is taking place in the outdoor and exposure expected to be low, however must be confirmed with an exposure sample.	3	2	3	H	18
					- Severity is rated as very high due to the intrinsic nature of diesel emissions, which are classified as a known human carcinogen.				

TABLE 19: HAZARDOUS CHEMICAL AGENT EXPOSURE: EXPOSURE TO DIESEL EXHAUST EMISSIONS (DEE) AND DIESEL PARTICULATE MATTER (DPM)

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score
		- Diesel exhaust is classified as a known human carcinogen.							

Recommendation(s):

1. **Exposure Monitoring (Priority Action)**
   - Conduct personal exposure monitoring for **Diesel Particulate Matter (DPM)**.
   - Compare results with the Occupational Exposure Limit (OEL) in terms of the Hazardous Chemical Agents Regulations.
   - Repeat monitoring if process changes occur.
   - Maintain exposure records as legally required.
2. **Engineering Controls**
   - Ensure all vehicles are switched off during refueling.
   - Confirm adequate natural ventilation in the outdoor filling area.
   - Position employees upwind of exhaust where possible.
   - Install designated refueling bay with:
     - Clear demarcation
     - Anti-static grounding measures
   - Ensure proper fuel nozzle systems to prevent vapour release.
   - Provide Class B fire extinguishers within 10 meters.

TABLE 19: HAZARDOUS CHEMICAL AGENT EXPOSURE: EXPOSURE TO DIESEL EXHAUST EMISSIONS (DEE) AND DIESEL PARTICULATE MATTER (DPM)

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

- Ensure spill containment systems are available.

3. Administrative Controls

- Develop and implement a **Diesel Handling & Refueling Procedure**.
- Prohibit smoking within at least 10 meters of the filling area.
- Limit unnecessary idling of vehicles.
- Rotate staff where feasible to reduce exposure duration.
- Provide training on:
  - Diesel fume health risks
  - Flammable liquid handling
  - Spill response procedures
  - Fire emergency response
- Ensure Safety Data Sheets (SDS) are accessible.
- Conduct annual refresher training.

4. Personal Protective Equipment (PPE)

Minimum PPE for diesel attendants:

- Nitrile gloves
- Safety glasses

TABLE 19: HAZARDOUS CHEMICAL AGENT EXPOSURE: EXPOSURE TO DIESEL EXHAUST EMISSIONS (DEE) AND DIESEL PARTICULATE MATTER (DPM)

					Risk Quantification				
Area and/or Process Evaluated	HEG and Typical Task Description	Stressor Identified, OEL and health effect	Current Condition	Existing Control Measures	Frequency	Probability	Severity	Risk Priority	Risk Score

- Protective footwear
- Flame-resistant overalls (if risk assessment justifies)

Respiratory protection:

- Only if exposure monitoring indicates levels near or above OEL.

5. Health Surveillance

If exposure monitoring indicates significant exposure:

- Implement medical surveillance in accordance with HCA Regulations.
- Maintain records as required by legislation.

6. Emergency Preparedness

- Spill kit available and clearly marked.
- Emergency contact numbers displayed.
- Fire extinguishers are inspected monthly.
- Incident reporting procedure implemented.

7. Risk Rating Review

- Reassess severity considering carcinogenic potential of diesel exhaust.
- Update risk score after implementation of additional controls.
- Review risk assessment annually or after incident.

ANNEXURE A: REFERENCES

1. Occupational Health and Safety Act, (No 85 of 1993)
2. Physical Agents Regulations for Workplaces: Health Section, promulgated under the Occupational Health and Safety Act. Act No. 85 of 1993.
3. Noise-Induced Hearing Loss Regulation
4. Physical Agents Regulation (PAR) – Ventilation for Acceptable Indoor Air Quality
5. Physical Agents Regulation (PAR) - Thermal
6. Occupational Health and Safety Act, 1993 Regulations for Hazardous Chemical Agents, 2021
7. Occupational Health and Safety Act, (No.85 of 1993) – Facilities Regulations, 1990

ANNEXURE B: CERTIFICATES

Approved Inspection Authority Certificate

employment & labour

Department:
Employment and Labour
REPUBLIC OF SOUTH AFRICA

National Department of Employment and Labour
Republic of South Africa

APPROVED INSPECTION AUTHORITY

Registered in accordance with the provisions of the Occupational Health and Safety Act, Act 85 of 1993, as amended.

This is to certify that:

INNOVATIVE OCCUPATIONAL HYGIENE SOLUTIONS CC

has been approved by the Department of Employment & Labour as a Type A, Approved Inspection Authority: Occupational Health and Hygiene under the following regulations:

- Asbestos Abatement Regulations 4(2), 5(7), 13, 15(2)(c), 16 & 22
- Hazardous Chemical Agents Regulations 6 & 12.
- Lead Regulations 7 & 14.
- Noise Induced Hearing Loss Regulation 7

CHIEF INSPECTOR

Valid from: **30 September 2022**
Expires: **29 September 2026**
Certificate Number: **OH0112 – CI 015**

SANAS Accreditation Certificate

sanas
South African National Accreditation System

CERTIFICATE OF ACCREDITATION

In terms of section 22(2)(b) of the Accreditation for Conformity Assessment, Calibration and Good Laboratory Practice Act, 2006 (Act 19 of 2006), read with sections 23(1), (2) and (3) of the said Act, I hereby certify that:-

INNOVATIVE OCCUPATIONAL HYGIENE SOLUTIONS CC
Co. Reg. No.: 1998/060102/23
HARTBEESPOORT

Accreditation Number: **OH0112**

is a South African National Accreditation System accredited Inspection Body to undertake **TYPE A** inspection provided that all SANAS conditions and requirements are complied with

This certificate is valid as per the scope as stated in the accompanying scope of accreditation, Annexure "A", bearing the above accreditation number for

OCCUPATIONAL HYGIENE INSPECTION AT WORKPLACES

The facility is accredited in accordance with the recognised International Standard

ISO/IEC 17020:2012

The accreditation demonstrates technical competency for a defined scope and the operation of a management system

While the certificate remains valid, the Accredited Facility named above is authorized to use the relevant SANAS accreditation symbol to issue facility reports and/or certificates

Ms FS Radebe
Acting Chief Executive Officer
Effective Date: 30 September 2022
Certificate Expires: 29 September 2026

This certificate does not on its own confer authority to act as an Approved Inspection Authority as contemplated in the Occupational Hygiene Regulations. Approval to inspect within the regulatory domain is granted by the Department of Employment and Labour.

ANNEXURE A

SCOPE OF ACCREDITATION

Accreditation Number: OH0112

TYPE A

Permanent Address: Innovative Occupational Hygiene Solutions CC No. 36/2 Schumann Street Hartbeespoort 0216 Tel: 076 211-8828 Email: lindi@iohsolutions.com	**Postal Address:** PO Box 373 Hartbeespoort 0216 Issue No.: 10 Date of issue: 26 August 2022 Expiry date: 29 September 2026

Nominated Representative: Ms C Ashby **Quality Manager:** Ms C Ashby	**Technical Manager:** Ms L Bouwer	**Technical Signatory:** Ms L Bouwer – Reg. No. 0412 (Full Scope) **Regulations:** 1. Asbestos Abatement 2. Lead 3. Noise-Induced Hearing Loss 4. Hazardous Chemical Agents
Field of Inspection	**Service Rendered**	**Codes and Regulations**
Regulatory: The supply of services as an inspection authority for **Asbestos** Abatement Regulations, November 2020.	**Inspection Authority for:** Regulation 4 (2) Regulation 5 (7) Regulation 13 (Regulation 15 (2)(c)) Regulation 16 Regulation 22	Procedures and In-house methods not limited to the following: OHS Act Legislated: • HSG 173: Monitoring Strategies for Toxic Substances • HSG 248: Asbestos, The analysts' guide for sampling, analysis and clearance procedures, HSE, UK. • OESSM: Occupational Exposure Sampling Strategy Manual Supplementary documents: • NIOSH Manual of Analytical Techniques • OSHA Index of Sampling and Analytical Methods

Original date of accreditation: 30 September 2014

Page 1 of 3

Accreditation Manager

This is a DRAFT copy and may NOT be used to support or demonstrate compliance to any sections of the Occupational Health and Safety Act no 85 of 1993 or any of its relevant Regulations

ANNEXURE A

Accreditation No.: OH0112
Date of issue: 26 August 2022
Expiry date: 29 September 2026

Field of Inspection	Service Rendered	Codes and Regulations
The supply of services as an inspection authority for **Lead** Regulations, Government Notice No. R 236 of 28 February 2002.	Regulation 7 – Air monitoring	OHS Act Legislated: • HSG 173: Monitoring Strategies for Toxic Substances • OESSM: Occupational Exposure Sampling Strategy Manual • SANS 6164: Standard method for the determination of lead (inorganic and tetra- alkyl) in the workplace by atomic absorption and spectrophotometry Supplementary documents: • NIOSH Manual of Methods • OSHA Index of Sampling and Analytical Methods • HSE Methods for the Determination of Hazardous Substances
The supply of services as an inspection authority for **Noise-Induced Hearing Loss** Regulations, Government Notice No. R 307 of 07 March 2003	Regulation 7 – Noise monitoring	OHS Act Legislated: • SANS 10083: Code of Practice for the Measurement and Assessment of Occupational Noise for Hearing Conservation Purposes Supplementary documents: • DME Guideline for the Compilation of a Mandatory Code of Practice for an Occupational Health Programme (Occupational Hygiene and Medical Surveillance) for Noise
The supply of services as an inspection authority for the Regulations for **Hazardous Chemical Agents**, March 2021.	Regulation 6 – Air Monitoring	OHS Act Legislated: • OESSM: Occupational Exposure Sampling Strategy Manual • HSG 173: Monitoring Strategies for Toxic Substances (previously EH 42) Supplementary documents: • NIOSH Manual of Analytical Methods • OSHA Index of Sampling and Analytical Methods • AIHA: A Strategy for Assessing and Managing Occupational Exposures • HSE Methods for the Determination of Hazardous Substances (i.e. MDHS 14/4)
Maintenance of control measures Examinations and tests of engineering control measures		
The supply of services as an inspection authority for **Asbestos** Abatement Regulations, November 2020.	Regulation 13 – (Regulation 15 (2)(c))	OHS Act Legislated: None specified Supplementary documents: • The Safe Handling of Asbestos-containing Lagging or Insulation, Guidance Note No. 001 (Department of Labour)

Original date of accreditation: 30 September 2014

Page 2 of 3

Accreditation Manager

This is a DRAFT copy and may NOT be used to support or demonstrate compliance to any sections of the Occupational Health and Safety Act no 85 of 1993 or any of its relevant Regulations

ANNEXURE A

Accreditation No.: OH0112
Date of issue: 26 August 2022
Expiry date: 29 September 2026

Field of Inspection	Service Rendered	Codes and Regulations
The supply of services as an inspection authority for **Lead** Regulations, Government Notice No. R 236 of 28 February 2002	Regulation 14 – Maintenance of control measures	OHS Act Legislated: None specified Supplementary documents: • ACGIH: "Industrial Ventilation: A Manual of Recommended Practice for Operation and Maintenance" • ANSI/ASHRAE 110: ASHRAE Standard "Method of Testing Performance of Laboratory Fume Hoods
The supply of services as an inspection authority for the Regulations for **Hazardous Chemical Agents**, March 2021.	Regulation 12 – Maintenance of control measures	OHS Act Legislated: None specified Supplementary documents: • ACGIH: "Industrial Ventilation: A Manual of Recommended Practice for Operation and Maintenance" • ANSI/ASHRAE 110: ASHRAE Standard "Method of Testing Performance of Laboratory Fume Hoods" • General Safety Regulations (GNR. 1031 of 30 May 1986), Regulation 4 relates to use and storage of flammable liquids

Original date of accreditation: 30 September 2014

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ISSUED BY THE SOUTH AFRICAN NATIONAL ACCREDITATION SYSTEM

Accreditation Manager

Competent Person Certificate of Registration at SAIOH

SAIOH

The Southern African Institute for Occupational Hygiene

This is to certify that

Lindi Bouwer

Has satisfied the requirements of
the Constitution of the Institute
and on recommendation of the Professional Certification Committee
is registered as an

Occupational Hygienist (OH)

Member Number: 0412

Valid until: 31 January 2027

Dr Ivan Niranjan
Chairperson: Professional Certification Committee

Member ID: 33914630

Certificate ID: 33914630-30891

Issued by the Southern African Institute for Occupational Hygiene

SAQA Professional Body ID: 844

IOHA Recognised Certification Scheme

IOHA