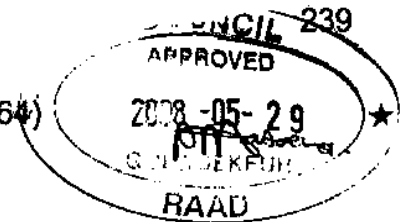


HR: 18/P

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COUNCIL: 29 May 2008



22. **CORPORATE AND SHARED SERVICES DEPARTMENT (STRATEGIC HUMAN RESOURCES DIVISION)
HAZARD IDENTIFICATION AND RISK ASSESSMENT (HIRA) POLICY
(From the Mayoral Committee Cluster: Economic Development: 15 April 2008
and the Portfolio Committee: Corporate and Shared Services: 8 May 2008)**

1. **PURPOSE**

To seek approval for the Hazard Identification and Risk Assessment (HIRA) policy. Provide for the subsequent implementation thereof by all departments and regions for all activities of the City of Tshwane (CoT).
To inform on the HIRA training program.

2. **STRATEGIC OBJECTIVE ADDRESSED BY THIS REPORT**

Strategic Objective 5: To ensure good governance, financial viability and optimal institution transformation with capacity to execute the CoT's mandate.

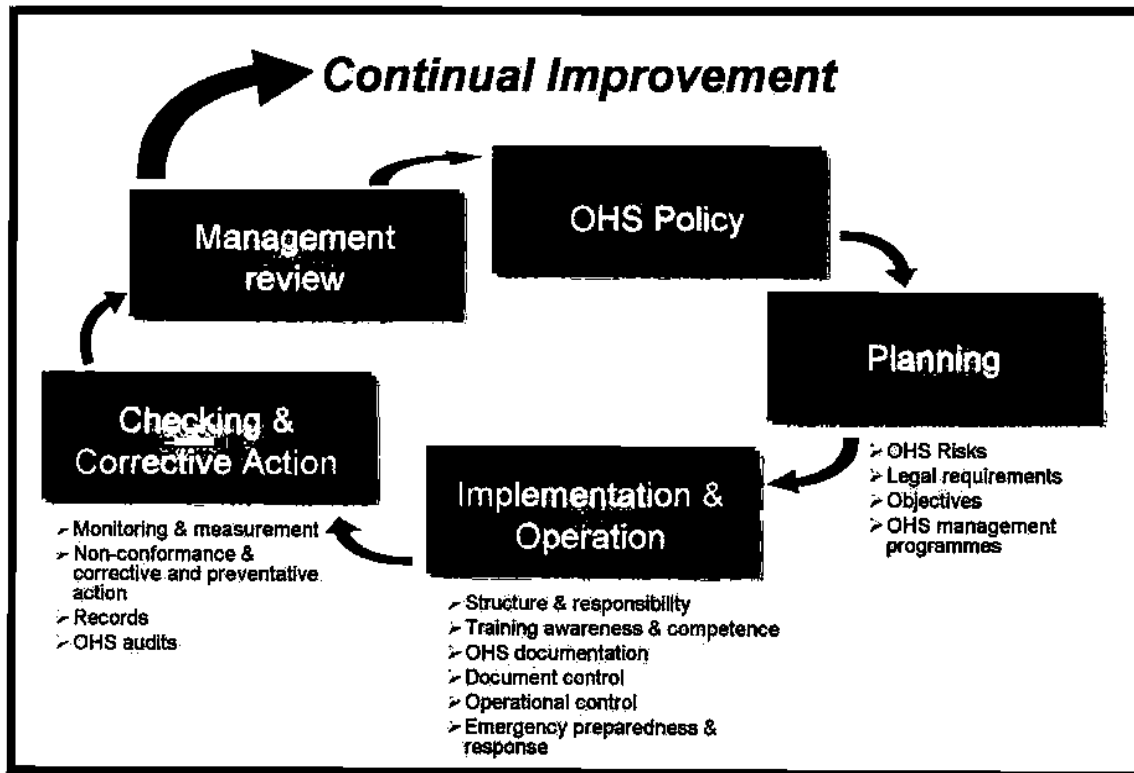
3. **BACKGROUND**

In terms of Section 8 of the Occupational Health and Safety Act 1993 (Act 85 of 1993) as amended (OHSAct) the employer has a duty to provide a workplace that is as far as reasonably practicable safe and without risk to the health of employees or other persons that might be affected by the activities of the employer. The principle of hazard identification and risk assessment are entrenched in section 9 (2)(d) of the abovementioned act and forms the bases from which risk management developed and health and safety in the workplace ensured.

In order for the CoT to adhere to its legal responsibility in terms of OHS it needs to develop and implement a risk based Occupational Health and Safety management system. The development and implementation of such will be embarked upon after the finalisation of the ASD process.

The system will be based on the identification and management of risk and the integration of OHS management with the other business processes of the CTMM.

Overview of the proposed system



One of the actions in the “Planning” phase of the system is the identification of all the hazards present in the workplace and the assessment of the potential risk that such hazard hold. Assessed risks can then be prioritised to ensure optimal allocation of resources for the management of such risks.

The Hazard Identification and Risk Assessment (HIRA) policy (Annexure A) and associated procedure (Annexure B (excluding appendices)) provides for the development and implementation of an organisation wide process within the CoT for the identification of health and safety hazards, and for the assessment of health and safety risks. Once risks have been prioritized risk management activities can be embarked upon in a systematic way. Continuous improvement in ensuring health and safety in the work place will be effected.

3. OBJECTIVES OF THE POLICY

To ensure that a Hazard Identification and Risk Assessment process is implemented by all departments and regions for all activities.

4. CURRENT STATE OF HIRA PROCESS

Some divisions of the CoT have already utilized the basic principles of the HIRA process for the management of risk related to some of their activities. Due to the absence of a guiding policy and enabling procedures these activities have been sporadic and fragmented.

5. LINKING WITH OTHER BUSINESS PROCESSES

The HIRA process for the identification and assessing of occupational health and safety risks utilizes the same risk rating scale as the one used in the rating of environmental risk. This enables departments to prioritise health and safety and environmental risks and develop risk management objectives focussing on the highest risks first and systematically dealing with lower risks.

Prioritisation of health and safety and environmental risk by all departments utilizing the same process and evaluation scale will enable the City Manager to ensure budgetary allocations across CoT departments for the management of said risks are fact based and not random.

6. TRAINING PROVIDED

The Occupational Health and Safety section has obtained and customised a HIRA training program to empower the persons tasked with performing HIRAs to perform said task. Pre-booking for the training can be done by the FSDFs if each department via the SAP system.

7. THE WAY FORWARD

After approval of the policy heads of departments must ensure successful implementation of this policy in their areas of responsibility within two year.

Executive Directors and Regional Directors must develop an implementation plan to ensure the successful implementation of this policy in their area of responsibility within two years. They must provide such implementation plan in the prescribed format to the Specialised Unit: Occupational Health and Safety within three months of approval of this policy. They must also provide quarterly reports to the Strategic: Occupational Health and Safety unit on progress.

The Strategic Executive Director: Corporate and Shared Services must report to top management on the overall status of the HIRA process based on the reports submitted by Executive Directors and Regional Directors.

9. COMMENTS OF THE CHIEF FINANCIAL OFFICER

(Unaltered)

This Department takes note of the Hazard Identification and Risk Assessment Policy.

It should be noted that the budget of the CoT is a balanced budget which means that no surplus or deficit exists. Therefore, any additional financial implications for the CoT resulting from initiatives emanating from the report will have to be managed within the approved Medium Term Revenue and Expenditure Framework. Any additional budgetary needs will have to be managed by means of identifying savings, reprioritising of functions and efficiency gains.

Each affected department must note that all the cost that will emanate from the implementation of the Hazard and Risk Assessment Policy must be managed within the allocated budget of the CoT and sufficient funds should be requested in future budget processes for these purposes.

10. COMMENTS OF THE EXECUTIVE DIRECTOR: LEGAL SERVICES

(Unaltered)

A municipality exercises its legislative or executive authority by developing and adopting policies, plans and strategies including setting targets for delivery.

Section 11(3)(a): Municipal Systems Act, 32 of 2000

The Council of a municipality, within the municipality's financial and administrative capacity and having regard to practical considerations has the duty to promote a safety and healthy environment.

Section 4(2)(i): Municipal Systems Act

The purpose of the report and the recommendations complies with the CoT's legislative obligations and authority and are supported.

11. COMMENTS OF THE STRATEGIC EXECUTIVE DIRECTOR: ECONOMIC DEVELOPMENT

(Unaltered)

The Economic Development Department takes cognisance of the report.

The following suggestions from the department are tabled for consideration namely:

- The departmental, divisional and regional heads are made to sign this policy by their staff, the highest priority on their planning for each financial circle. This because for officials to render an efficient service, a conducive work environment needs to be created by employer.
- That departments or divisions appoint OHS reps (take the function from SED's and ED's) that will champion the implementation of the HIRA policy, and these reps should be empowered and given a certain authority as required and prescribed by the policy.

12. COMMENTS OF THE ACTING EXECUTIVE DIRECTOR: CUSTOMER RELATIONS MANAGEMENT

(Unaltered)

The CRM Division supports the recommendations as stated in the report, and that continuous training be provided to Division/Department representatives to ensure a high standard of safety in the organisation (CoT).

13. COMMENTS OF THE ACTING STRATEGIC EXECUTIVE DIRECTOR: COMMUNITY SAFETY

(Unaltered)

The most significant risk is staff incapacity in numbers, competence and lack of experience, exacerbated by the virtually non existent training section to remedy the situation. Presently well experienced fire fighters are exiting the service at a phenomenal rate with no comparable replacement and no future prospects for improvement.

Further comments will be given once the specific policies are going to be drafted which might have influence on this department.

14. COMMENTS OF THE ACTING EXECUTIVE DIRECTOR: HOUSING SERVICES

(Unaltered)

The department take recognisance of the report and the recommendations are supported.

It is proposed that as part of the communication plan and subject to the approval of the policy road shows or briefing workshops should be convened for each department.

Recommendations are supported.

15. COMMENTS OF EXECUTIVE HEAD: GOVERNANCE AND SECRETARIAT SERVICES

The purpose of the report is to seek approval for the Hazard Identification and Risk Assessment (HIRA) Policy, the subsequent implementation thereof by all departments and regions for all activities of the CoT and to inform on the HIRA training program.

- Section 11 of the Local Government: Municipal Systems Act, Act 32 of 2000 as amended, (hereinafter referred to as the "MSA") provides, *inter alia*, that the executive and legislative authority of a municipality is exercised by the council of the municipality, and the council takes all the decisions of the municipality subject to Section 59 of the MSA. A municipality exercises its legislative or executive authority by, amongst others, developing and **adopting policies**, plans, strategies and programmes, including setting targets for delivery.
- It is advised that the adoption and approval of Policies of the CoT is to be **effected by the Council**.
- The report is in accordance with terms and conditions of Circular 9/2007.

In light of the above mentioned the Recommendations are supported.

16. IMPLICATIONS

16.1 Human Resources

The approval and implementation of the HIRA policy will not require the appointment of additional staff. Training will be conducted by existing staff of the Occupational Health and Safety Training unit.

16.2 Financial

Expenses pertaining to the implementation of the HIRA policy will be managed within the operational budget of each department. Expenses pertaining to training will be managed within the operational budget of the OHS Training unit.

The implementation of risk management activities to address risks identified during the HIRA process will require appropriate funding. The prioritisation of risks

and the systematic approach to the scheduling of corrective measures will act as a guide to departments in future budget requests. It will also for a basis for assessing budget requests from a comparable corporate perspective.

16.3 Constitutional and Legal

Section 24 of the Constitution of South Africa states that every person has the right to an environment that is not harmful to his health or well-being. The working environment forms part of the broader concept of "environment".

In terms of Section 8 of the Occupational Health and Safety Act 1993 (Act 85 of 1993) as amended (OHSAct) the employer has a duty to provide a workplace that is as far as reasonably practicable safe and without risk to the health of employees or other persons that might be affected by the activities of the employer.

The HIRA process is a systematic and structured methodology by which uniform adherence to both abovementioned pieces of legislation can be ensure throughout the CoT can.

16.4 Communication

A corporate circular will be utilized to inform all departments of the policy, the supporting procedure, appropriate guidelines and other related documentation.

All the above mentioned documents will also be made available on the OHS webpage on the CoT intranet.

17. CONCLUSION

The successful implementation of the HIRA process will undoubtedly put the CoT at the forefront of local governments in ensuring a better workplace and life for all its employees.

ANNEXURES:

- A. Hazard Identification and Risk Assessment (HIRA) policy
- B. Hazard Identification and Risk Assessment (HIRA) procedure

RESOLVED:

1. That the Hazard Identification and Risk Assessment Policy be approved.
2. That the Hazard Identification and Risk Assessment process be implemented throughout the CoT based on the HIRA Policy as part of the Occupational Health and Safety Management System
3. That all Departments ensure successful implementation of this policy in their areas of responsibility within two years of approval of this policy.



4. That the City Planning, Development and Regional Services Department must develop an implementation plan to ensure the successful implementation of this policy in their area of responsibility within two years.
5. That the City Planning, Development and Regional Services Department provide such implementation plan in the prescribed format to the Strategic Occupational Health and Safety Unit within three months of approval of the policy.
6. That the City Planning, Development and Regional Services Department provide quarterly reports to the Strategic Occupational Health and Safety Unit on progress on implementation.
7. That the Corporate and Shared Services Department report to Top Management on the overall status of the HIRA process based on the reports submitted by City Planning, Development and Regional Services Department.



ANNEXURE A

POLICY ON OCCUPATIONAL HEALTH AND SAFETY HAZARD IDENTIFICATION AND RISK ASSESSMENT

POLICY

To provide for a safe and healthy workplace for all the employees of the City of Tshwane

1. PURPOSE

To provide for the development and implementation of a process for the identification of health and safety hazards, and for the assessment and control of health and safety risks in the City of Tshwane

2. SCOPE

This policy is applicable to all departments of the City of Tshwane, and principally applies to all supervisors and managers of the City of Tshwane.

This policy is applicable to –

- existing activities, work practices, equipment, items of plant, materials, substances, facilities, premises, buildings and areas related to the activities of the City of Tshwane; and
- planned workplace changes that may affect the health and safety of employees, contractors, visitors to or customers of the City of Tshwane, prior to their implementation.

3. OBJECTIVES

To ensure that a hazard identification and risk assessment process is implemented for all activities of the City of Tshwane

4. REFERENCES

- Occupational Health and Safety Act, 1993 (Act 85 of 1993), as amended (OHS Act)
- Mine Health and Safety Act, 1996 (Act 29 of 1996) and regulations, as amended
- City of Tshwane Procedure on Hazard Identification and Risk Assessment

5. DEFINITIONS

Hazard – the potential to cause harm to a person

New – plant, process or substances that have not been previously introduced in the specific area of the City of Tshwane under the proposed conditions

Risk – a combination of the likely severity and probability of harm arising from a hazard

Risk assessment – the process of evaluating the likely severity and probability of harm arising from a hazard

Risk control – the process of implementing measures to reduce the risk associated with a hazard (The control process must follow the control hierarchy in the order described in labour legislation. It is important that control measures do not introduce new hazards, and that the ongoing effectiveness of the controls is regularly monitored).

Risk control hierarchy – ranks risk control measures in decreasing order of effectiveness:

- Elimination of hazard
- Substitution of hazardous processes or materials with safer ones
- Engineering controls
- Administrative controls
- Personal protective equipment

Substance – covers all chemicals, organisms and materials, in any physical form, either used in the course of employees' or contractors' work or to which they may be exposed to, and –

- includes, but is not limited to, compressed gases, solvents, radioactive substances, building materials, pesticides, laboratory chemicals and cleaning chemicals;
- excludes cooking ingredients used in food preparation, first-aid products and pharmaceuticals used under qualified supervision.

Supervisor and manager – any employee of the City of Tshwane who –

- plans, organises or supervises the activities of other employees, contractors, students or visitors of the City of Tshwane; and
- designs or organises the design of new facilities, processes or activities for the City of Tshwane

6. EXECUTION

6.1 New plant, process or substance and any other changes

- Prior to the introduction of any new plant, process or substance in the City of Tshwane, a hazard identification and risk assessment (HIRA) must be conducted in accordance with the City of Tshwane HIRA procedure.

6.2 The following must be done about existing activities, work practices, equipment, items of plant, materials, substances, facilities, premises, buildings and areas:

- The departmental / regional management, in consultation with the Strategic Occupational Health and Safety Management (SOHSM) Section, must develop an initial schedule of hazard identification and risk assessment of all work areas and work performed in the City of Tshwane to be completed as per the departmental or regional HIRA plan (including time frames).
- A schedule must be developed for the periodic review of all HIRAs conducted. HIRAs must be reviewed at least every two years.

7. RESPONSIBILITY

7.1 Primary

- The City Manager, in his capacity as the section 16.1 appointee in terms of the Occupational Health and Safety Act, bears overall responsibility for the successful implementation of this policy throughout the City of Tshwane.
- The Heads of Departments, in their capacity as the section 16.2 appointees in terms of the Occupational Health and Safety Act, are responsible for the overall implementation of this policy in their departments or areas of responsibility.
- Executive Directors and Regional Executive Directors are responsible for coordinating the initial implementation and periodic review of the HIRA process in their divisions / regions and providing regular reports to the Strategic Occupational Health and Safety Management Section. This enables the SOHSM section to compile a report for the City of Tshwane's Occupational Health and Safety top management representative.
- Managers are responsible for conducting a HIRA in relation to the facilities and activities under their control in accordance with the departmental HIRA plan. Managers can appoint (in writing) a person responsible for executing the HIRA.

7.2 Secondary

- The Strategic Executive Director for Corporate and Shared Services will be the top management representative for reporting the status of the HIRA process. Input for these reports will be the responsibility of each department.
- The Strategic Occupational Health and Safety Management Section will compile (and verify on a sample basis) status reports from the feedback they receive from departments / regions on the implementation status of their HIRA process, and present the findings to the Strategic Executive Director of Corporate and Shared Services.

8. DOCUMENTS

- 8.1 HIRA process report on departmental implementation
- 8.2 Departmental and/or regional HIRA plan

9. RECORDS

- 9.1 Departmental / regional HIRA implementation reports must be kept by the executive directors until all HIRAs have been completed to the satisfaction of the Strategic Occupational Health and Safety Management Section.
- 9.2 Departmental / regional HIRA reports must be kept by the executive directors until the HIRA has been reviewed.

10. APPENDICES

None

PROCEDURE FOR OCCUPATIONAL HEALTH AND SAFETY HAZARD IDENTIFICATION AND RISK ASSESSMENT

1. SCOPE

All activities conducted at and under the direct supervision of the City of Tshwane fall within the scope of this procedure.

2. PURPOSE

This procedure outlines a methodological process for risk management activities to be conducted in line with labour legislation and international best practice. This procedure is ruled by the Policy on Occupational Health and Safety Hazard Identification and Risk Assessment.

The purpose of this procedure is to ensure that –

- health and safety hazards and risks associated with the City of Tshwane's activities are identified and assessed;
- a register of all hazards for each relevant activity of the City of Tshwane is compiled, maintained and updated as required; and
- prior identification of hazards and the assessment of risks of proposed alterations, expansions or modifications to any of the City of Tshwane's processes and activities are conducted.

3. OBJECTIVES

- 3.1 To identify the health and safety hazards associated with all activities of the City of Tshwane, and to control the related risks
- 3.2 To provide a basis for the continual improvement of health and safety performance in the organisation

4. REFERENCES

- 4.1 Occupational Health and Safety Act, 1993 (Act 85 of 1993), as amended
- 4.2 Mine Health and Safety Act, 1996 (Act 29 of 1996), as amended

5. DOCUMENTS

- 5.1 Generic hazards list (Appendix A)
- 5.2 Task risk assessment matrix (Appendix B)
- 5.3 Exposure rating key (Appendix C)
- 5.4 Risk classification table (Appendix D)
- 5.5 Control measure guidelines (Appendix E)

- 5.6 Departmental occupational health and safety risk profile (Appendix F)
- 5.7 Job task observation matrix (Appendix G)
- 5.8 Risk assessment team attendance (Appendix H)
- 5.9 HIRA team leader appointment form (Appendix I)

6. DEFINITIONS:

HIRA process: a process of collecting, analysing, interpreting, communicating and implementing information to identify hazards and determine the frequency, magnitude and nature of any incident or scenario which may occur in the area, and the measures to be taken to remove, reduce or control potential causes of such incidents or scenarios

Normal risks: risks associated with work performed under ordinary conditions or circumstances

New – plant, process or substances that have not been previously introduced in the specific area of the City of Tshwane under the proposed conditions

Abnormal risks: risks associated with work performed which is non-routine, or could be classed as irregular

Risk assessment – the process of evaluating the likely severity and probability of harm arising from a hazard

Risk control – the process of implementing measures to reduce the risk associated with a hazard (The control process must follow the control hierarchy in the order described in labour legislation. It is important that control measures do not introduce new hazards, and that the ongoing effectiveness of the controls is regularly monitored.)

Risk control hierarchy – ranks risk control measures in decreasing order of effectiveness:

- Elimination of hazard
- Substitution of hazardous processes or materials with safer ones
- Engineering controls
- Administrative controls
- Personal protective equipment

Significant risks: the top 20% of risks measured, which are likely to result in 80% of the losses, if appropriate preventative action is not taken

Substance – covers all chemicals, organisms and materials, in any physical form, either used in the course of employees' or contractors' work or to which they may be exposed to, and –

- includes, but is not limited to, compressed gases, solvents, radioactive substances, building materials, pesticides, laboratory chemicals and cleaning chemicals;
- excludes cooking ingredients used in food preparation, first-aid products and pharmaceuticals used under qualified supervision.

Supervisor and manager – any employee of the City of Tshwane who –

- plans, organises or supervises the activities of other employees, contractors, students or visitors of the City of Tshwane; and
- designs or organises the design of new facilities, processes or activities for the City of Tshwane

Quantitative risk assessment (QRA): the full evaluation of the risk, taking into account risk analysis and risk control. The QRA combines two main dimensions of risk quantitatively, namely:

- The frequency of all events which could put people, equipment or structures at risk.
- The severity of effects of all such events which may influence the outcome.

Responsible person: the person responsible for the completion, documentation and reporting of results of the City of Tshwane's risk assessment to the Strategic Occupational Health & Safety Management Section (This person is a manager appointed by each divisional general manager (see appointment letter in Appendix I).)

Danger: anything which may cause injury or damage to people or property, including any agent which has the potential to injure or damage people or property

Hazard: a physical situation that has the potential to cause harm to people, or damage to property

Risk value: the combination of the expected frequency and consequence of a single incident or a group of incidents or scenarios

Incident: an undesired event that has the potential for causing harm to people, or damage to property

Reasonably practicable: practicable in –

- the severity and scope of the hazard or risk concerned;
- the state of knowledge reasonably available concerning that hazard or risk and of any means of removing or mitigating that hazard or risk; and
- the availability and suitability of means to remove or mitigate that hazard or risk and the cost of removing or mitigating that hazard or risk in relation to the benefits

Risk: the aspect of probability or likelihood for a danger to exist. This is the most important aspect to deal with. The risk must always be the indicator for action to be taken. In other words, risk means the probability that a hazard will occur.

Safe: free from any hazard. The word "free" is intended to mean as low as possible.

Safe work procedure: a step-by-step description of the safest and most effective way to carry out a particular job

7. ABBREVIATIONS

HIRA: Hazard identification and risk assessment

MSDS: Material safety data sheet

PPC: Personal protective clothing

PPE: Personal protective equipment

SOP: Standard operating procedures

SWP: Safe work procedure

WSWP: Written safe work procedure

8. RESPONSIBILITY

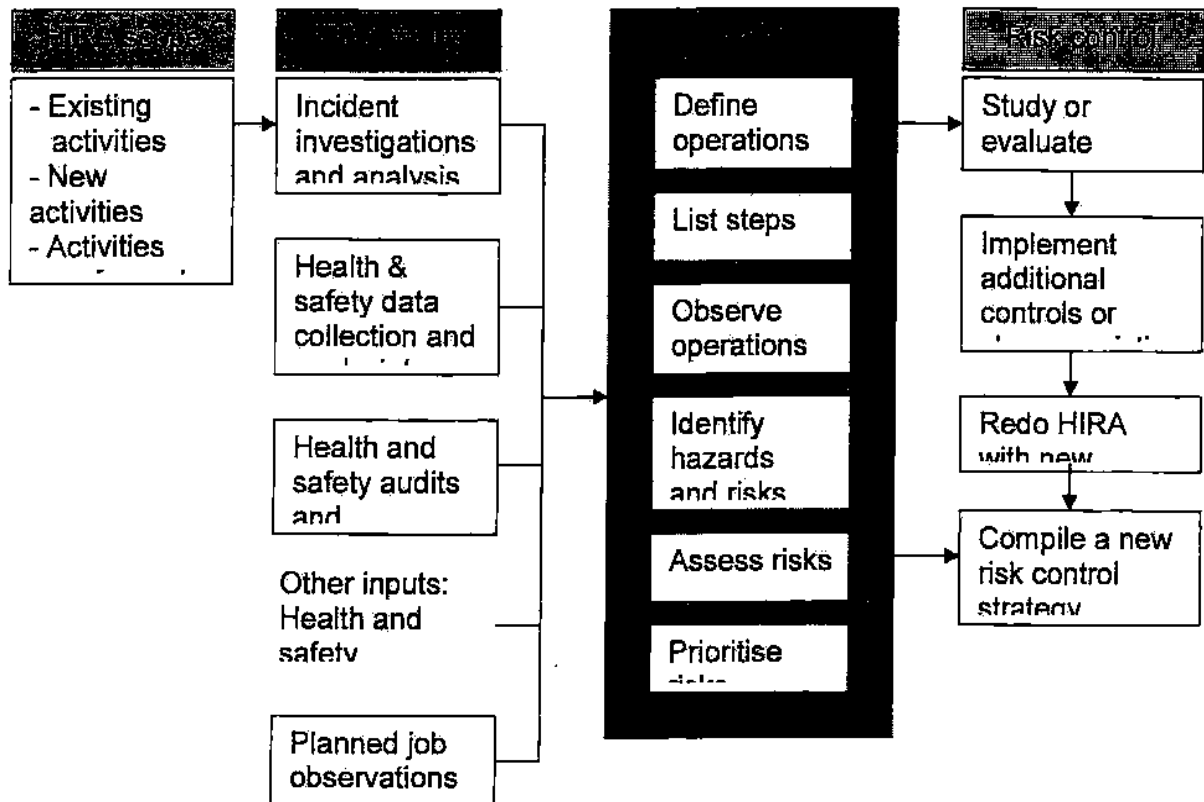
	Activity	Responsible person
a)	Ensure that a HIRA program is carried out in each department.	Head of Department
b)	Co-ordinate the implementation and periodic review of the HIRA process in divisions / regions and provide regular reports to the Strategic Occupational Health and Safety Management Section	Executive Directors / Regional Executive Directors
c)	Identify occupational health and safety hazards on existing activities	Managers
d)	Identify occupational health and safety hazards of proposed new activities	Managers, project engineer or City of Tshwane contact person
e)	Identify occupational health and safety hazards where work is undertaken by a contractor	Managers, project engineer or City of Tshwane contact person
f)	Implement health and safety risk management programmes	Managers, project engineer or City of Tshwane contact person
g)	Review risk assessments on an annual basis or when there has been an accident or incident or change in process	Managers, project engineer or City of Tshwane contact person

9. EXECUTION

The responsible person appointed (see Appendix I) by each Executive Director and Regional Executive Directors must ensure the completion of Occupational Health and Safety risk assessments. The appointed HIRA team leader (and any other person directed by the

divisional HIRA appointee) must undergo HIRA training presented by the Human Resources Division, Advisory Section, Occupational Health and Safety Unit.

9.1 Process flow



The task risk assessments must be conducted by taking into consideration all related issue-based risk assessments conducted, such as:

- Health
- Fire
- Equipment
- Chemical
- Process
- Previous risk assessments
- Ergonomic assessments
- Environmental impact assessments

Task risk assessments must be conducted by all HIRA Team Leaders in cooperation with superintendents, supervisors, foremen, the Strategic Occupational Health and Safety Management Section and health and safety representatives. A risk assessment must be conducted on each activity or process using the steps detailed below. Do not assume that a risk is negligible and can be ignored. This is a subjective opinion and has no justification. Rather spend an extra five minutes quantifying all risks through the formal risk assessment process. Each activity which falls into a high-risk category must be identified as a hazardous process.

A. Preliminary information-gathering phase

Step 1: Define the operations to be assessed

- a) Identify the area and activity.
- b) Consider the jobs and activities.

Step 2: Gather information on substances and processes

- a) Study SWPs, SOPs and WSWPs.
- b) List activities.
- c) List substances used.
- d) List nature, composition, volumes and hazardous properties of the following (see material safety data sheets).

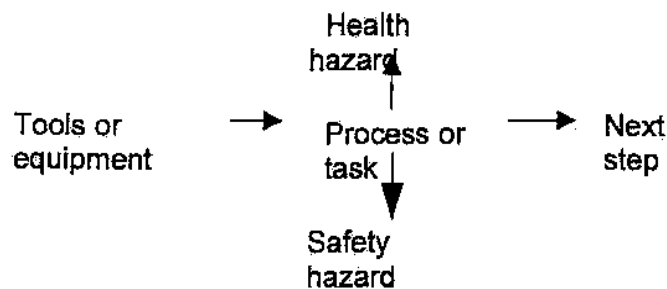
- Plant and equipment
- Processes
- Raw materials
- Intermediate products
- By-products
- End products
- Waste products

- e) Know the quantities stored and/or used.

Step 3: Document the process flow of the operation to be assessed

- a) List the processes or operations in the area.

- Draw up a flow diagram of the process, eg:



- Indicate positions of work stations and workers.

- b) Gather worker data – categorise workers into groups with the same activities.

Step 4: Identify activities or sources of potential exposure to hazards

- Chemical or biological hazards – what is the probability of inhalation, ingestion or skin contact?

- Physical or ergonomic hazards – are workers exposed to noise, heat, trip hazards, electricity etc?

Step 5: Study control measures or mitigatory factors (see Appendix E)

- Are these effective?
- Are they reliable?
- Are they maintained properly?

B. Risk assessment phase

All tasks must be broken down into steps to ensure that each step is assessed. The person responsible for the risk assessment must supply an electronic (typed) copy of the completed task risk assessment document to the Strategic Occupational Health and Safety Management Section.

- Step 1: Establish a risk assessment team consisting of at least the area manager, health and safety representative and shop steward, and register their names using Appendix H.
- Step 2: List tasks or processes in Appendix B per job level category (column A).
- Step 3: All tasks or group of tasks in which hazards were identified must be broken down into steps (column B).

Note: Only one action is allowed per step.

- Step 4: Identify potential hazards (see the non-exhaustive example list in Appendix A) in all tasks, and indicate the hazard in the appropriate column (column C). When it is a chemical substance, give the substance's trade name.
- Step 5: Give a description of the source of the hazard (column D). When it is a chemical, give the active ingredients. If the identified hazard is noise, the source will be the machine or process generating the noise. In other words, what process, equipment, action or inaction is causing the hazard?
- Step 6: List the effect that the hazard will have on the human body in column E, eg dermatitis, noise-induced hearing loss, the loss of a finger or a life.
- Step 7: List all the actions, projects and procedures which are already in place to control or prevent the hazard in column G.
- Step 8: Evaluate the hazard's severity and probability using the exposure rating key (see Appendix C).
- 8.1. Write the weight effect (number) allocated to severity and probability of the listed step in column H under the heading Initial Risk.

8.2. Determine the risk value by multiplying the value of the severity weight and the probability weight.

Step 9: Determine the mitigatory value by dividing the number of controls in place (column G) by the number of applicable controls not yet in place (column K) multiplied by 100. The mitigatory value is the value corresponding to the percentage obtained above (refer to the third column in Appendix C).

Step 10: Determine the residual risk (column I) after control measures have been identified by multiplying the initial risk score found in column H with the calculated mitigatory value (see Appendix C).

Step 11: Determine the significance rating (column J) by comparing the risk value (column I), with the criteria in Appendix D.

Step 12: Describe the risk control measures which are applicable (refer to the hierarchy of control in Appendix E):

- Eliminate (through design)
- Transfer
- Avoid
- Reduce
- Follow procedures
- Use PPE

Step 13: Identify high-risk tasks

13.1. If the risk value of any step in a task falls into the high-risk area, the task must be listed as a high-risk task in Appendices B and F.

13.2. If the risk value of any step in a task has a severity of 6 or falls into the medium-risk area, the task could also be listed as a high-risk task by the discretion of the team.

13.3 All identified high risks should be documented and prioritised in accordance with significance in Appendix F. Management needs to use this appendix as a guide to manage the highest risks. An action plan for the reduction of all a division's high risks should be drawn up. Resources should be allocated (personnel, time and money) to each risk detailed in Appendix F. A time frame for bringing all high risks down to an acceptable level should be decided upon and communicated throughout in the division.

Note: All high risks should be reduced to at least a tolerable level by applying applicable risk reduction techniques and risk control actions. (See examples in Appendix E.)

Step 14: Task observation

Periodic task observations must be conducted on all tasks with a severity of 6 (at the discretion of the risk assessment team), and those must be classified as a high-risk task after all reasonably practicable mitigatory measures have been applied.

- 14.1. A written safe work procedure (WSWP) must be drawn up for each task as categorised above. This WSWP must contain all steps necessary to complete a particular task and all the control measures to be applied by the employee to perform the task safely. Appendix G may be used for this purpose.

Drawing up a WSWP

- 14.2 List all steps necessary to complete the task.
- 14.3 While observing an employee performing the actual task, identify all (potential) hazards of each step.
- 14.4 List the safe work procedure or control measure to counter each identified hazard next to each hazard.
- 14.5 Train employees in the safe execution of the high-risk task by making use of the WSWP.

Task observation

- 14.6. Once employees have been trained in the safe execution of the high-risk task, their compliance with the WSWP must be tested while performing the actual task.
- 14.7 The frequency of task observation will be decided by the area manager (risk assessment team) and will depend on the frequency of the task, the risk involved and the compliance of the employee with the WSWP during the initial task observation.
- 14.8. Complete the job task observation matrix in Appendix G.

Step 15: Re-evaluate when conditions change

The risk assessment process must be revisited when any conditions change, such as modifications, incidents, injuries, plant additions, new tasks, procedural changes or complaints.

Note: If there were no process changes, incidents, injuries or complaints, a task risk assessment review must be done at least every two years, or more frequently according to management opinion.

10. APPENDICES

- 10.1 Generic hazards list (Appendix A)
- 10.2 Task risk assessment matrix (Appendix B)
- 10.3 Exposure rating key (Appendix C)
- 10.4 Risk classification table (Appendix D)
- 10.5 Control measure guidelines (Appendix E)
- 10.6 Departmental Occupational Health and Safety risk profile (Appendix F)
- 10.7 Job task observation matrix (Appendix G)
- 10.8 Risk assessment team attendance (Appendix H)
- 10.9 HIRA team leader appointment form (Appendix I)