

**Occupational Health and Safety Baseline Risk Assessment**

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| <b>Project:</b> | <b>Maintenance and Repairs of Chutes and Structures at Kendal Power Station</b> | <b>Next Review Date (every 2 years):</b> | <b>Template identifier:</b> |
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**Refer to Occupational Health and Safety Risk assessment procedure 32-520**

| <i>List activity</i>   | <i>Hazard Identification</i>  | <i>Associated risk</i>  | <i>Risk type</i> | <i>What are the possible consequences?</i>                             | <i>Existing Controls</i>   | <i>Control Owner</i>                     | <i>Legal and Other Requirements</i>   |
|--|---|---|------------------|--|--|--|---|
| List specific activities to be performed taking into consideration the equipment to be used, the personnel involved in the task. | Anything with potential to cause of harm.<br><b>Note:</b> A hazard can pose more than one risk.                   | A chance that injury, ill health or damage could occur as a result of uncontrolled hazard.                        | Safety or health | Consider the worse case scenario without controls?                     | Include:<br>- <u>Preventative Controls</u> (controls implemented to eliminate hazards or reduce the likelihood of the risk occurring), and<br>- <u>Reactive Controls</u> (controls implemented to reduce the immediate impact of the risk occurring)<br><br><b>Elimination<br/>Substitution<br/>Engineering controls<br/>Administrative controls<br/>Personal protective equipment (PPE)</b> | <b>RCE</b><br>Risk Control Effectiveness | Where relevant, list the relevant legislative and or Eskom requirements that prescribe the control. |
| Noise  | Exposure to excessive noise   | Exposure to excessive noise   | Health           | Noise induced hearing loss   | Communication (hazard awareness), Medical surveillance program, Training: General Safety, Personal protective (hearing),   | ME                                       | Client/ Contractor<br><br>OHS s8(2)(d), GMR 3, NIHL Reg 3-13, SANS 10083, procedure 32-136          |
| Dust   | Exposure to excessive Ash dust  | Exposure to excessive Ash dust  | Health           | Nasal irritation, Occupational disease, Respiratory disease            | Plant maintenance, Communication (hazard awareness), Noise surveys, dust suppression, medical surveillance, Training: General Safety, PPE including respiratory protection   | ME                                       | Client/ Contractor<br><br>OHS Act s13, OHS s8(2)(b,c,d,e), GSR 2, procedure 32-136                  |
| Dust   | Exposure to excessive dust at coal, ash plant   | Exposure to excessive dust at coal, ash plant   | Health           | Nasal irritation, Occupational disease, Respiratory disease, silicosis | Risk Assessment, Plant maintenance, Communication (hazard awareness), dust suppression, Dust surveys, medical surveillance, Training: General Safety, PPE including respiratory protection   | ME                                       | Client/ Contractor<br><br>OHS Act s13, OHS s8(2)(b,c,d,e), GSR 2, procedure 32-136                  |
| Illumination   | Exposure to poor illuminated areas  | Exposure to poor illuminated areas  | safety           | slip trip and fall Injuries, eye strain                                | Risk Assessment, Plant maintenance, illumination survey, Communication (hazard awareness), use of portable lights  | ME                                       | Cleint/ Contractor<br><br>ERW, OHS s8(2)(b,c,d,e), OHS s13, procedure 32-136                        |
| Heavy Equipment  | Employees handling heavy equipment and may have incorrect posture   | Employees handling heavy equipment and may have incorrect posture   | Safety           | back injuries, foot and hand injuries                                  | Use of well maintained and suitable lifting equipment (certified) to eliminate the use lifting by hands where possible. Pre task risk assessment, lifting in teams when lifting by hands, Communication (hazard awareness), Medical surveillance program, Training: General Safety, Personal protective  | ME                                       | Client/ Contractor<br><br>OHS s8(2)(b,c,d,e), procedure 32-136                                      |
| Wet or slippery floor conditions (oil and grease spillages)  | slips and fall  | slips and fall  | safety           | injury, contusion  | Cleaning of plant. Communication (hazard awareness), Guarding/barriers/rails, Training: General Safety, PPE, signage, Scaffolding around the plant required as in when needed.   | ME                                       | Client/ Contractor<br><br>OHS s8(2)(b,d,e,f), ERW 6, SANS 10400, GRS 2, procedure 32-136            |
| Portable electrical tools  | electrical contact or and fire resulting from Incorrect use of tools, use of defective tools, tools not insulated | electrical contact or and fire resulting from Incorrect use of tools, use of defective tools, tools not insulated | Safety           | Electrical Shock, Burns Injuries                                       | Risk Assessment, Tools use by competent personnel, Use of electrical tools with dead man switch, Portable electrical tools maintenance and inspection, Communication (hazard awareness), Signage and notices, PPE  | ME                                       | Client/ Contractor<br><br>OHS s8(2)(b,d,e), EMR 10, GR 2  |

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| Maintenance and repairs of chutes and structures | Hazardous substances (e.g grease, oil)  | exposure from leaking or handling of lubricants and cleaning agents.            | Health                          | Inhalation of chemicals may lead to irritation of the respiratory tract, eye and skin irritation.  | Communication (hazard awareness), medical surveillance, MSDS training, PPE   | ME                 | Client/ Contractor   | HCSR (2-15), OHSA s8(2)(b,c,d,e), OHSA s13, PSR, procedure 32-136                           |
|  | Stairs  | Ascending and Descending Stairs, tripping and falling through defective grating | Safety                          | injuries, Fractures  | Plant maintenance and defect reporting, Communication (hazard awareness three point contact), notices and signage, Guarding/barriers/rails, PPE  | ME                 | Client/ Contractor   | OHS Act s13, OHSA s8(2)(b,c,d,e,f), GSR 2, procedure 32-136                                 |
|  | Hand tools  | Injury when stripping equipment   | Safety                          | injuries, Fractures  | Risk Assessment, Tools use by competent personnel, Use of electrical tools with dead man switch, Portable electrical tools maintenance and inspection, Communication (hazard awareness), Signage and notices, PPE                                  | ME                 | Client/ Contractor   | HCSR (2-15), OHSA s8(2)(b,c,d,e), OHSA s13, PSR, procedure 32-136                           |
|  | Uneven surfaces, gratings   | slip trip and fall, falling into the trench                                     | Safety                          | Fracture, injuries, fatality   | Plant maintenance and cleaning, Communication (hazard awareness), Guarding/barriers/rails, Training: General Safety, signage and notices, PPE,   | ME                 | Client/ Contractor   | OHS Act s13, OHSA s8(2)(b,c,d,e,f), GMR 3, DMR 2, GSR 2 ERW 6                               |
|  | Overhead Crane  | Falling loads   | Safety                          | head injuries, fatalities  | Hazard awareness, steer clear when crane is being operated. Mandatory PPE to be worn at all times. Employees to adhere to workshop demarcation areas   | ME                 | Client/ Contractor   | OHS Act s13, OHSA s8(2)(b,c,d,e,f), GMR 3, DMR 2, GSR 2 ERW 7                               |
|  | Emergencies   | Employees exposed to emergency situation, such as fire, medical emergency etc   | Safety                          | injuries, Fatalities   | Emergency preparedness plan, Communication (hazard awareness), EPP safety training,  | ME                 | Client/ Contractor   | OHS Act s13, OHSA s8(2)(b,c,d,e,f), ERW, Kendal EP Plan *1015702, SHE specification         |
|  | Scaffolding platform and material   | Falling from heights, scaffolding platform collapsing                           | Safety                          | injuries, Fatality   | Fall protection plan, Work at height training, Scaffolding erected by competent contractor and inspected, Fall protection equipment, Risk assessment   | ME                 | Client/ Contractor   | OHS Act s13, OHSA s8(2)(b,c,d,e,f), OHS act sec 13, CR 10, 32-418                           |
|  | Falling objects   | Struck by falling object/ material.   | Safety                          | injuries, Fatality   | Risk assessment of work surroundings, Planning and communication with parties working within the same area. Safety awareness, PPE including Helmet and safety boots  | ME                 | Client/ Contractor   | OHS Act s13, OHSA s8(2)(b,c,d,e,f), ERW 6   |
|  | Welding sparks  | Exposure to welding sparks, fire  | Safety                          | Arc eye/eye injuries, Burn injuries  | Permit to Work and Hot Work permit, Competent personnel/ welders, Risk assessment, fire screens, PPE including welding helmets, respirators aprons, skullcaps, boots and fire resistant overalls amongst others.                                   | ME                 | Client/ Contractor   | OHS Act s13, OHSA s8(2)(b,c,d,e), OHSA s13, GSR 2, GSR 9, Eskom PSR, Hot work permit system |
|  | Welding fumes and smoke   | Inhalation of welding fumes   | Health                          | Nasal irritation, Respiratory infection with flu like symptoms   | Permit to Work and Hot Work permit, Competent personnel/ welders, Taking breaks in between welding works, PPE including Suitable respirator, Helmet and safety boots, When in the workshop extractor fan to be on                                  | ME                 | Client/ Contractor   | OHS Act s13, OHSA s8(2)(b,c,d,e), OHSA s13, GSR 2, GSR 9, Eskom PSR, Hot work permit system |
|  | Welding Gases and equipment   | Fire and explosion  | Safety                          | Injuries, Fatality   | Safe handling, maintenance and inspection of gas bottles, maintenance of welding equipment, Secure storing of bottles, Risk assessment, MSDS   | ME                 | Client/ Contractor   | OHS Act s13, OHSA s8(2)(b,c,d,e), OHSA s13, GSR 2 to 4, Eskom Plant safety regulations      |
|  | Handling of plant equipment i.e. chutes and gratings etc.   | exposure to pinch and nip points  | Safety                          | hand injuries, cuts and fractures  | ensure correct PPE is worn, risk assessment to be conducted to identify and control the risk. Use correct material handling methods  |                    |  |   |
| Confined Space                                   | Exposure to confined work space inside the surge bins and terrace bins may present oxygen deficiency, high temperature conditions | Health /Safety  | Injuries, Heat stroke, fatality | Permit to work system, Risk assessment, Competent personnel, extraction or ventilation systems, Medical surveillance program, emergency preparedness, Supervision, PPE | ME   | Client/ Contractor | OHS Act s13, OHSA s8(2)(b,c,d,e), OHSA s13, GSR 2 to 5, Eskom Plant safety regulations |   |
| Driving on site and offsite                      | Night time driving  | Poor visibility, fatigue, poor road surfaces including potholes                 | Safety                          | Vehicle accidents which will result in multiple injuries and/or fatalities as well as property damage.   | Medical fitness, Awareness during SHEQ meetings/ tool box talks/ lessons learned/ road safety campaigns/ Driver risk evaluation/ Defensive & advance driving training, fatigue management/ rest periods/ route risk assessment                     | ME                 | Client/ Contractor   | Road traffic act, OHS Act, Vehicle Safety 240-69946.  |
|  | Weather conditions, Mist/Fog/heavy rain   | Poor visibility and loss of control to the vehicle                              | Safety                          | Vehicle accidents which will result in multiple injuries and/or fatalities as well as property damage.   | Medical fitness, Awareness during SHEQ meetings/ tool box talks/ lessons learned/ road safety campaigns/ Driver risk evaluation/ Defensive & advance driving training, wait until the mist is clear. Use alternative routes. route risk assessment | ME                 | Client/ Contractor   | Road traffic act, OHS Act, Vehicle Safety 240-69946.  |

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|   | Road users, pedestrians and/or stray animals   | Struck by, struck against incidents.Loss of control of the vehicles. Driver is negligent or not trained. | Safety | Collision that result in accidents with multiple injuries and/or fatalities.                           | Medical fitnesss, Awareness during SHEQ meetings/ tool box talks/ lessons learned/ road safety campaigns/ Driver risk evaluation/Defensive & advance driving training ,route risk assessment  | ME | Client/ Contractor | Road traffic act, OHS Act. Vehicle Safety 240-69946.   |
|   | Road conditions, potholes, curves, road construction, road works, bends, steep heels, rail crossings | Loss of control of the vehicle. Not observant of the surroundings. Unfamiliar with the road. Speeding    | Safety | Vehicle accidents which will result in multiple injuries and/or fatalities as well as property damage. | Medical fitnesss, Awareness during SHEQ meetings/ tool box talks/ lessons learned/ road safety campaigns/ Driver risk evaluation/Defensive & advance driving training. Pre inspections, Trip Risk Assessment  | ME | Client/ Contractor | Road traffic act, OHS Act. Vehicle Safety 240-69946.   |
| Chutes and Structure maintenace and repairs | COVID 19   | Contracting COVID. Contact with persons that may be infected with the virus                              | Health | psychological impact,COVID illness, death  | COVID Risk assessment and COVID management procedures. Shift rotations where necessary,Social distancing when performing the activities, COVID 19 awareness and training hand hygiene,sanitizers, Incident management procedures. Record keeping register for all visitors. PPE including appropriate musks, hand gloves. | ME | Client/ Contractor | OHS Act sec 8,13, Disaster Management Act, 2022 (Act No.57 of 2002), COVID 19 Regulations. Procedure 32-95 |