Eskom	STANDARD	OHS

Title: **EMERGENCY PLANNING**

Document Identifier: **32-123**

Alternative Reference Number: **N/A**

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

Functional Area: **Sustainability Systems**

Revision: **1**

Total Pages: **26**

Next Review Date: **JUNE 2020**

Disclosure Classification: **Controlled Disclosure**

Compiled by	Functional Responsibility	Authorized by
PG May	**J Naidoo**	**K Pather**
Senior Advisor	**Corporate OHS Manager**	**General Manager**
Fire Risk and Emergency Management	**(Operations)**	**Sustainability Systems**
Date: 17/06/2015	Date: 17/6/15	Date: 18/6/2015

Content

1. Introduction

Emergency situations threaten, or may cause harm to the lives of employees and members of the public. They may cause damage to property, infrastructure, equipment and the degradation of the environment. Furthermore, emergency situations may be a security threat thus disturbing production and the rendering of services. This document sets the minimum requirement standard for an adequate level of preparedness, response and recovery for all Eskom business units to prevent or minimise the impact of an emergency situation pertaining to human life, the environment, security and property.

2. Supporting Clauses

2.1 Scope

This standard prescribes the minimum requirements for the establishment of an emergency planning structure, risk identification, developing contingency plans (action plans), training of staff and emergency teams. The standard also sets out the purpose and approach for emergency plan evaluation and review.

2.1.1 Purpose

The purpose of this standard is to ensure that all Eskom business areas, which include Operating Units (OUs), Grids, Business Units (BU's), meet the minimum requirements for emergency planning in order to:

a) prevent or reduce the risk of business disasters and emergency situations that can negatively impact on Eskom personnel, the environment, security and business;

b) mitigate the severity or consequences of business disasters or emergency situations that may affect personnel, property, equipment, infrastructure, the environment, security, rendering of services and production;

c) establish emergency preparedness teams and organising resources;

d) establish rapid and effective responses to all business disasters and emergency situations; and

e) establish recovery plans and rehabilitation systems for business continuity.

2.1.2 Applicability

This document shall apply throughout Eskom Holdings SOC Ltd, its divisions and subsidiaries.

2.1.3 Effective date

This document is in effect since the last revision. The review conducted was to ensure alignment with the various management system requirements; hence the content has not changed. A period of 6 months from the date of approval is hereby granted for effective change management to establish and implement the requirements of the various management systems. The different disciplines within Eskom shall ensure that this standard forms part of their management system requirements.

2.2 Normative/Informative References

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

2.2.1 Normative

[1] ISO 9001 Quality Management Systems

[2] GGS1301, Emergency Preparedness and Response Requirements for Nuclear Installations (formerly known as ESKASABT6)

[3] 32-86, Integrated Risk Management Policy

[4] 32-727, Safety, Health and Environment (SHE) Policy

[5] 32-108, Eskom Fire Fighting Organisation

[6] 32-107, Eskom Fire Fighting Training Programme

[7] 32-477, Eskom Safety, Health and Environment Training and Development Procedure

[8] 240-79537982, Security Threat and Risk Assessments

[9] 32-124, Eskom Fire Risk Management

[10] 32-391 Eskom Integrated Risk Management

[11] 32-84, Eskom Security Risk Management Procedure

[12] 32-256, Emergency Response Procedure - Communication

2.2.2 Informative

[1] Enterprise Risk & Resilience Policy (32-86)

[2] Integrated Enterprise Risk and Resilience Framework (240-77194678)

[3] Priorities approved by the Mancom Committee (Operations) on 11 April 2014.

[4] Business Continuity Standard (240-79747329)

[5] ISO 14001 Environmental Management System Standard

[6] ISO 9001 Quality Management Systems – Requirements

[7] OHSAS 18001 Occupational Health and Safety Standard OHSAS 18001

[8] ISO 28001 Security management system for the supply chain – Best practices for implementing supply chain security, assessment and plans – Requirements and guidance

[9] ISO 55001 Asset management – Management systems – Requirements

[10] The National Environmental Management Act 107 of 1998

[11] Occupational Health and Safety Act 85 of 1993 and its Regulations

[12] King III Report

[13] Disaster Management Act No 57 of 2002

[14] NFPA 1600

[15] Disaster and Emergency Planning: A Turker

[16] Crisis Leadership: Ian I Mitrof

[17] National Key Point Directive: 1990

[18] International Atomic Energy Agency Safety Guide No. 50-sg-06

[13] Industrial Emergency Planning: Robert Kerlly

2.3 Definitions

Definition	Explanation
Assignment of responsibility	The assignment of responsibility in terms of emergency preparedness is effected by way of appointment letters. These appointment letters define the individual's responsibilities and shall be signed by the Responsible Manager for Occupational Hygiene and Safety.
Contingency Plan	A documented collection of procedures and information that is developed and maintained in readiness for use in an incident to enable an organisation to continue to deliver on its critical activities at an acceptable pre-defined level
Danger	Anything which has the potential to cause harm.
Disaster	A disruption of the human ecology that exceeds the capacity of the community to function normally.
Emergency	Any unplanned event, of such nature or magnitude that cannot be coped with as a normal daily activity of the Eskom business unit, which results, or could result, in danger to the health or safety of persons, a threat to security, damage to property, equipment or the environment.

Definition	Explanation
Emergency Action Plan	A description of the actions or steps to be taken to prepare for the event of an emergency and to facilitate emergency preparedness that contains the names of persons and their assigned duties, and includes a response plan and a recovery plan.
Emergency Exercise	The controlled simulation of an emergency with the purpose of testing response and recovery actions.
Emergency Management Centre (EMC)	A facility equipped and located so as to facilitate continuity and control during an emergency: It should have provision for communication and support for persons manning the centre. It is also known as Emergency Operations Centre.
Emergency Planning	A continuous integrated management process of planning and implementation of measures aimed at: • Preventing or reducing the risk of emergency situations; • Mitigating against the severity and consequences of emergency situations; • Ensuring a rapid and effective response to emergency situations; • Providing for post-emergency recovery and rehabilitation.
Emergency Preparedness Coordinator	A person designated in writing with the assigned duty of compiling and implementing an emergency action plan.
Emergency situations	Exposure to unplanned and uncontrolled contingencies which may threaten or have a negative impact on human life, the environment, security, assets or on the continuous rendering of strategic and essential services.
Environment	The surroundings within which humans exist and that are made up of: • the land, water and atmosphere of the earth; • micro-organisms, plant and animal life; • any part or combination of the above and the interrelationships among and between them; and • the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and wellbeing.
Interconnected Power System	Refers to the Eskom Power System including all Generation equipment, Transmission Grid and Distribution network.

Definition	Explanation
Installation	Installation referred to in terms of the Major Hazard Installations Regulations of the Occupational Health and Safety Act 85 of 1993.
Hazard Identification	The process of identifying hazards and forms the first part of the risk assessment process.
Recovery plan	Measures or activities to recover from an emergency situation and to bring the situation back to normal in the shortest time and in a cost-effective way.
Response Plan	Measures or activities to be taken during or immediately after an emergency situation to bring relief or containment of the situation.
Risk	For purposes of this standard it means the effect of uncertainty on objectives expressed as the probability that injury or damage will occur.
Security threat	A potential security event. When a threat turns into an actual event, it may cause an unwanted incident. It is unwanted because the incident may harm an organisation or system.
Workplace	Any premises or place where a person performs work in the course of his/her employment.

2.4 Abbreviations

Abbreviation	Description
EP	Emergency Planning
EOC	Emergency Operations Centre, also known as EP Centre.
OHS Act	Occupational Health and Safety Act
OHSAS	Occupational Health and Safety Assessment Series
SAPS	South African Police Services
SANDF	South African National Defence Force

2.5 Roles and Responsibilities

Senior management shall be responsible for ensuring that this standard is implemented in their areas of responsibility and all employees shall apply the standard as required.

2.6 Process for Monitoring

Compliance with the requirements, as defined in this standard, shall be monitored by the Business Unit at least every 3 (three) years.

2.7 Related/Supporting Documents

Supersedes Rev 0 32-123: Emergency Planning.

3. Document Content

3.1 Requirements for developing Emergency Planning in the workplace

3.1.1 All Eskom business units shall develop an emergency planning programme based on the five point framework: Infrastructure, risk identification, contingency plan, training and awareness, evaluation and review.

3.1.2 Eskom's nuclear business units shall develop emergency plans in accordance with the Emergency Preparedness and Response Requirements for Eskom Nuclear Installations document.

3.1.3 For emergencies relating to the Interconnected Power System (IPS) emergency procedures shall be developed by the relevant Business Units in line with the Eskom Interconnected Power System Emergency response procedure**.**

3.1.4 BU specific emergency planning procedures and all other supporting documents shall be developed in accordance with the Eskom Documentation Policy requirements to ensure controlled disclosure/confidentiality, control of circulation, review and updating. All superseded copies shall be seized from circulation and be destroyed and the original archived.

3.1.5 Communication during emergency situations must take place in accordance with Eskom's Emergency Communication Procedure.

3.1.6 Based on the Eskom's emergency planning procedure, divisions may develop emergency planning instructions that will be more relevant to their divisional reporting structures and level of operations.

3.1.7 People with disabilities must always be considered when developing new emergency plans or reviewing existing emergency plans to ensure that people with disabilities are not discriminated against or left behind during an emergency situation.

3.1.8 The BU shall establish a system for reporting and controlling emergencies for responding and resolving the emergency situation. The emergency reporting number or system shall be displayed at all convenient areas for staff and visitors to see it.

3.1.9 Where the number of employees is more than 25 or where they are separated or are sitting in multi-storey buildings, the BU shall have an emergency alarm system with a public address facility. The alarm system shall be maintained and tested at least once a month.

3.1.10 A callout procedure shall be developed specifying steps for activating all the relevant emergency team members, the boundaries for response out of Eskom's area of jurisdiction and how the incident shall be escalated further.

3.1.11 The BU shall appoint first aiders in accordance with the General Safety Regulations - Regulation 3(4) and shall train them towards obtaining a minimum First Aid Level 2 qualification.

3.1.12 First Aid equipment shall be made available at all strategic points and shall be displayed with the necessary symbolic safety signs in line with General Safety Regulation 3(6) of the OHS Act.

3.1.13 All Eskom employees, temporary workers and contractors should be provided with emergency planning induction and Basic Fire Fighting measures. All visitors, employees and persons required to perform work on site shall be made aware of the business unit's emergency reporting system such as the emergency numbers and the evacuation procedure.

3.1.14 Appropriate and an adequate supply of firefighting equipment shall be installed at all strategic areas in accordance with the risks that were identified. The register of all fire extinguishers must be kept up-to-date. The system to monitor the expiry dates of the fire extinguishers must be established and maintained.

3.1.15 In accordance with Regulation 9 of the Environmental Regulations for Workplaces, emergency exits shall be made available in accordance with the number of employees in the workplace and shall be identified with clear and visible symbolic safety signs.

3.1.16 Emergency exits and escape routes should not be obstructed or locked. Where security is a concern reasonable means should be made to ensure that the emergency exits are opened without compromising safe evacuation from the building. The emergency routes should lead to a place of safety.

3.1.17 The assembly point or place of safety shall be identified and the employees shall be made aware of it and of the escape routes that lead to it.

3.2 Infrastructure

3.2.1 The most senior manager in the BU shall be appointed as Head of Emergency Planning and he/she shall appoint in writing, an Emergency Planning Team consisting of departmental managers or head or head of departments to develop and implement an integrated emergency planning programme for the business unit, building or site.

3.2.2 In order to ensure availability of response teams, the senior manager shall in writing delegate responsibilities, duties and authority to the EP team.

3.2.3 The planning and organisation of emergency planning shall be the task of a multi-disciplinary team.

3.2.4 Where the Business unit, site or installation forms part of a National Key Point, the senior manager shall establish a Joint Planning Committee (JPC) in accordance with the National Key Points Act, 102 of 1980 to discuss and plan for contingencies that may impact negatively on the running of the business and other security matters.

3.2.5 The appointment of coordinators shall be done in writing. They shall form part of the EP structure and shall assist with the implementation and co-ordination of the emergency plan. They shall be participate in the following (See Appendix C for example of appointment documents):

- Development and maintenance of the emergency planning
- Appointment and training of fire fighters
- Appointment and training of first aiders
- Arrangement of transport and other means of travelling
- Arrangement of medical facilities and the transporting of casualties to hospitals
- Arrangement of human resources wellbeing and industrial relations issues
- Arrangement of media press and crisis communication strategies
- Enforcing of law and order as well as protecting premises, resources, property and the scene of an incident
- Production-related issues
- Maintenance and plant related issues
- Arranging of environmental protection, clean-up and restoration
- Information management
- Risk and safety issues
- Appointment, training of evacuation coordinators and the safe evacuation of personnel

3.2.6 BU specific emergency plans shall be developed on an annual or *ad hoc* basis based on the top identified risks within each area.

3.2.7 Where the need for an emergency operational centre is identified and the emergency operational centre is established, support personnel shall be appointed and trained to assist in the EOC during the emergency.

3.2.8 The structure of the emergency planning team within the BU or Division shall comprise of representation from all disciplines and departments involved in the planning and dealing with an emergency situation (Appendix A).

3.2.9 The emergency planning team shall meet at least once every three months or on an *ad-hoc* basis to discuss emergency preparedness matters or to resolve emergency situations that may threaten the smooth continuity of the business. The meeting of the Joint Planning Committee shall cater for the internal and external planning with all the necessary stakeholders.

3.2.10 The BU, Division and Eskom shall establish an Emergency Management Centre (EMC) to strategise and resolve the emergency situation that may threaten or disrupt the continuity of the business. The EMC shall be established in a safe and accessible place and shall be equipped with the necessary communication facilities and network as per the emergency response venue standard. (See Appendix B)

- To ensure the proper handling of the incident, emergency situations shall be reported in accordance with the divisional protocols of the crisis management system.

3.3 Risk identification

3.3.1 The BU shall conduct a risk assessment to identify risks that may cause or results in a situation which may have a negative impact on the Eskom business and its customers and develop a response plan to address the identified risks and thereafter conduct a risk assessment at least once a year or on an *ad hoc* basis to update the emergency plan.

3.3.2 When conducting a risk assessment the Eskom Integrated Risk Management procedure shall be used as guidance in the risk assessment process.

3.3.3 Where there is an installation with more than the prescribed quantity of any substance kept permanently or temporarily or produced, processed, used, handled, or stored in such a form and quantity that it has the potential to cause a major incident, the Business Unit shall comply with the Major Hazard Installation Regulations of the OHS Act.

3.3.4 The emergency planning team shall establish strategies to terminate, treat, tolerate or transfer the risks in order to mitigate the impact of the risk on Eskom businesses and customers. The intended outcomes are: risk avoidance, changing likelihood, changing consequence, risk sharing, or risk tolerated.

3.3.5 The BU shall establish a system for continuous scanning of the micro- and the macro-environment to identify factors which may contribute to emergency situations and ensure:

- the reporting, recording, investigating and analysis of emergency situations;
- an organised risk assessment system; and
- an organised system for dissemination of information.

3.3.6 In order to ensure that all possible risks are attended to and possible contingency plans are developed, the risk assessment results should lead the organisation to the four strategies of risk management namely:

- Risk avoidance
- Changing the likelihood of risk
- Changing the consequence of risk
- Risk sharing
- Risk tolerance

3.4 Contingency Plan (response and recovery plans)

3.4.1 Contingency plans shall be developed to address all the identified risks of the BU in order to achieve a quick response and recovery to bring the situation back to normal in the shortest possible period and in the most cost-effective way and to provide for the:

- response and recovery, the well-being of employees (employee assistance programme), the environment and members of the public in relation to Eskom activities;

3.4.2 The developed contingency plan shall consist of the following headings:

- Objective of the contingency plan
- Critical aspects
- Responsible persons
- Disciplines to be involved
- Compulsory reporting
- Disciplines action plans (Appendix A)

3.4.3 Contingency plans shall cover or address post-emergency stress, environmental rehabilitation and impact recovery.

3.4.4 For those emergencies that the BU cannot deal with using the available resources or are of the magnitude that external assistance is required, the BU shall enter into mutual aid agreements with other nearby emergency services. The mutual aid agreement shall be formal and shall indicate its limitations. As part of contingency planning, the emergency services that can respond to the BU emergencies as part of assistance or mutual aid agreement shall be invited by the BU to participate in the formulation of the pre-plans**.**

3.4.5 Other Contingency Plans

Contingency plans that are not covered in this standard must be developed according to the relevant procedures and documents that detail the contents of such procedures, for example;

- Response and recovery of the technical operation of the BU for:
  - generation of electricity
  - transmission substations and line network
  - national control operations and network
  - distribution substations, line networks and technical support facilities and services
- Response and recovery of managerial, administration and facilities (alternative office space, staff backup and power backup)
- Response and recovery of information management
- Response and recovery of security system attack (crowd control)

3.5 Training and awareness

3.5.1 Safety contact and emergency evacuation procedure briefings at all Eskom meetings will include information relevant to the site and the venue specific emergency plan. This will include announcement on whether or not there are scheduled alarm tests that could take place during the meeting. The intention is that when none is scheduled, all alarms would indicate an actual event. If there was an alarm test scheduled this will be mentioned, and the audience will know not to react at the appropriate time.

3.5.2 Training shall be provided to all employees for appropriate skills and for developing EP plans and the management of incidents, knowledge and information necessary to help reduce or eliminate the consequences of emergency situations and increase their effectiveness to respond to and recover from emergency situations of all types.

3.5.3 Training institutions providing emergency preparedness/planning training shall be accredited by the relevant SETA to provide emergency planning courses within Eskom. The training courses and syllabus shall include the following training levels:

- General awareness: All employees should have a basic understanding of the site EP plan, evacuation procedures and raising the emergency alarm.
- Evacuation officials: Evacuation officials are appointed to assist with an orderly, quiet and quick evacuation process. They need to be trained in order to achieve the set objectives. The course duration should be about four (4) hours and aimed at providing the duties of evacuation officials for emergency situations.
- Emergency management course: Management and EP coordinators are expected to have knowledge and understanding of emergency planning and the development of the plan. The course duration should be three days (48hours) aimed at providing the learner with EP background, principles of emergency planning and the five points of the EP framework.
- Management workshop: Senior managers should receive basic training in the development of emergency plans, establishing the EOC, the incident/crisis management system and the evaluation of the emergency plan. The training/workshop should be for at least four (4) hours.

3.5.4 The following training and other safety training courses play a supporting role in the establishment of and in sustaining the emergency plan and the different emergency responses.

Training is to be based on the Eskom Safety, Health and Environment Training and Development Standard (32-477). Other training that supports emergency planning, include:

a) FIRST AID TRAINING

- First Aid Level 1: basic first aid training
- First aid Level 2: basic life support
- First aid Level 3: basic life support

b) FIRE FIGHTING TRAINING

- Individuals: Firefighting using portable fire extinguishers or hose reels as an individual or as part of a group of persons using these basic items of equipment. This would generally be applied to all Eskom employees having been given exposure to the use and operation of portable fire extinguishers.
- Volunteer Fire Fighting Teams: Where the nature of risk or the work environment warrants the formation of firefighting team(s), clear requirements shall be identified as necessary for the safety and effectiveness of those teams. This extends into the minimum numbers of personnel to be available, the training provided to them and the typical firefighting equipment available. Generally this is applied to structural firefighting using large bore hoses, breathing apparatus, foam making equipment, ladders, rescue techniques and hazardous materials training.

c) Risk assessment: To identify and quantify risks in the workplace for the purpose of establishing the necessary steps to deal with the risks.

3.6 Evaluation and review

3.6.1 The emergency plan shall be evaluated and reviewed at least once a year through the carrying out of tests/drills to ensure the effectiveness of the plan and updating it accordingly.

3.6.2 Emergency planning evaluation should be planned properly and a comprehensive exercise programme is developed consisting of the four main types of activities:

- Orientation session – an overview or introduction to emergency exercise to familiarise participants with their roles, contingency plans, procedures and special equipment.
- Table-top exercise – simulation situations in written scenario to trigger policies, procedures and contingency plans through telephone contacts and the answering of specific questions.
- Full-scale exercise – the actual move of manpower and equipment to test their availability and capabilities of handling an emergency situation.
- Specialist or outside consultancies can be utilised for evaluations and monitoring of the emergency planning of critical and other special plants.

3.6.3 Emergency exercise should be realistic and planned to address the BU identified risks and involve all disciplines.

3.6.4 Emergency exercises should be planned not to disturb the continuation of critical plant operation or impact on them negatively. Where personnel have to evacuate the work environment it should be done in a cost-effective manner.

3.6.5 Arrangements should be made to avoid unnecessary response from external emergency services such as fire and emergency services, ambulance services, the SAPS and the SANDF.

3.6.6 Emergency exercises can be arranged with other Eskom disciplines, the public or external organisations by virtue of physical reaction and participation or exchange of information on what their reaction will be, if they participate.

3.6.7 Sustainability Systems (SS): SS OHS – Fire Risk and Emergency Management shall be informed about all planned exercises or real emergency incidents.

3.6.8 Feedback on results shall also be given to all parties who participated, pending the consent of the relevant authoritative body responsible for the protection of strategically important installations.

4. Acceptance

This document has been seen and approved by:

Name	Designation
JM (Martin) Buys	Finance (Management Rep Exec)
Adriaan de Clercq	Technology & Commercial - Primary Energy (Management Rep Exec)
Matome Makwela	Human Resources (Management Rep Exec)
Rochelle Chetty	Sustainability (Management Rep Exec)
Pindi Mabena	Office of the CE (Management Rep Exec)
Johnstone Makhubu	Technology & Commercial - Commercial (Management Rep Exec)
Sean Maritz	Group IT (Management Rep Exec)
Kobus Steyn	Group Capital (Management Rep Exec)
Kulsum Crookes	Regulation & Legal (Management Rep Exec)
Lindi Mthombeni	Distribution (Management Rep Exec)
Mark Chettiar	Strategy & Risk Management (Management Rep Exec)

Name	Designation
Willy Majola	Generation (Management Rep Exec)
Natasha Sithole	Corporate Affairs (Management Rep Exec)
Nico Kleynhans	Transmission (Management Rep Exec)
Nosipho Maphumulo	Customer Service (Management Rep Exec)
Willy Majola	Technology & Commercial - Technology (Management Rep Exec)

5. Revisions

Date	Rev.	Compiler	Remarks
February 2015	1	PG May	Standard was revised to align with the various management systems in use in the business
February 2013	0	M. Atterbury	Standard was revised and published.
March 2006	0		The directive and standard were incorporated into one standard with reference number 32-123 and formatted, in alignment with the new Eskom document requirements.
May 2000	2		Standard ESKASAAI6 was revised and published.
February 2000	2		Directive ESKADAAQ3 was revised and published
March 1997	1		Both the directive and standard were revised and published.
March 1994	0		A standard number ESKASAAI6 and directive number ESKADAAQ3 were developed and published on the Eskom Documentation System.

6. Development Team

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

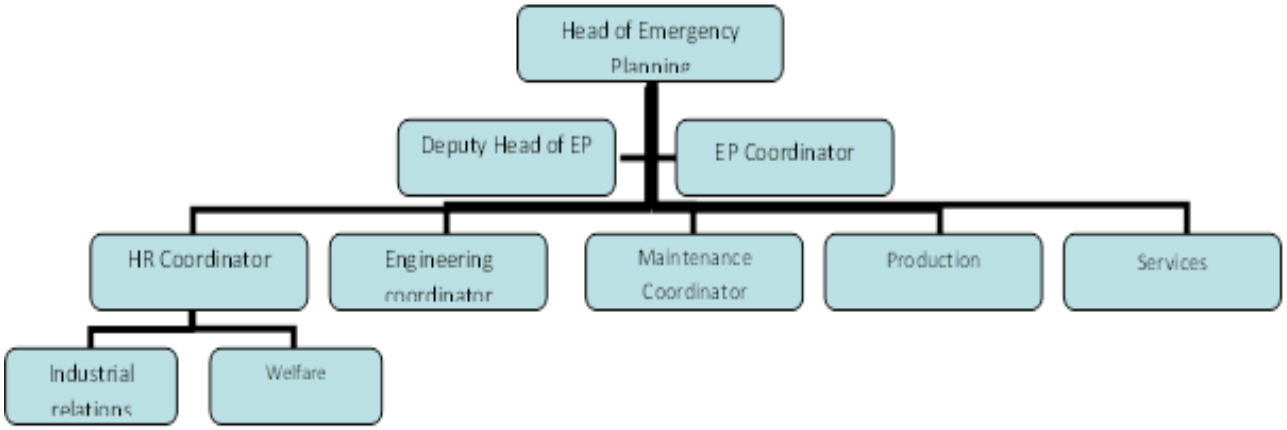
- Peter G May
- Marius Atterbury

7. Acknowledgements

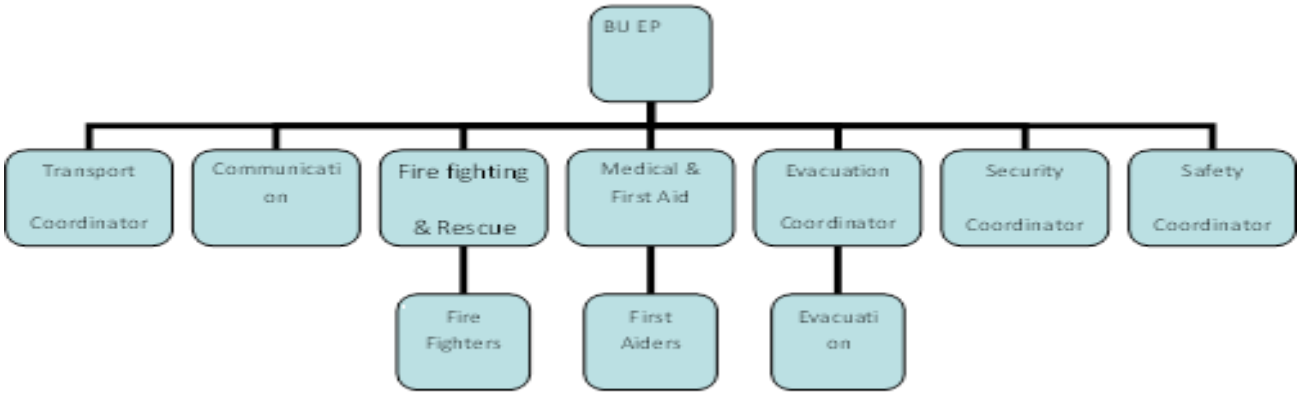
- Management Systems WG under leadership of Dave Lucas
- All Divisional Executive Management Representatives
- Gx Emergency Preparedness Coordinators Forum

Appendix A: Examples of an Emergency Planning Structure; Functional Structure and Contingency Plan

A1: Emergency Planning Structure example



A2: Emergency Planning Functional Structure



A3: Sample Contingency Plan

Occurrence: Sit-in strike at power station

1 Objective

- To resolve the strike and to get striking workers to return to work.

2 Critical aspects (that may jeopardise realisation)

- Unreasonable demands
- Language problems
- Agitators
- Reaction from opposition groups

3 Responsible person

- Manager, Human Resources.

4 Disciplines/officials involved (for mobilisation)

4.1 Industrial Relations Tel: Home: Cell No.:

4.2 Fire Fighting Tel: Home: Cell No.:

4.3 First Aid Tel: Home: Cell No.:

4.4 Evacuation Coordinator Tel: Home: Cell No.:

4.5 Security Tel: Home: Cell No.:

Environment Tel. Home: Cell:

4.6 Transport Tel: Home: Cell No.:

4.7 Welfare Tel: Home: Cell No.:

4.8 Human Resources Tel: Home: Cell No.:

4.9 _____ Tel: Home: Cell No.:

5 Compulsory reporting

- Group Management

8. Disciplines action plan

Industrial Relations	**Fire Fighting**	**First Aid**	**Evacuation**	**Environment**	**Security**	**Transport**	**Welfare**	**Human Resources**
Negotiations	On stand-by	On stand-by	Identification of evacuation routes	Environmental protection, clean-up and rehabilitation	Access/exit control	Transport available for working staff	Food and refreshments	Additional manpower
Interpreter	Liaison with municipal brigade for stand-by	Liaison with hospitals for stand-by		Liaison with environmental and water authorities	Barricade			Contractors
					Liaison with SAP			Retrain if need be
					Reaction force stand-by			
					Protection of working staff			
Signature Date	Signature Date	Signature Date	Signature Date	Signature Date	Signature Date	Signature Date	Signature Date	Signature Date

Appendix B: Basic Considerations for Emergency Management Centres (EMC)

Note: The term **Emergency Management Centre** is used, as opposed to **EP Centre**, due to Emergency Planning and Preparedness being a function prior to an emergency whilst the execution of activities during an emergency being closer related to managing activities being performed.

Actions required during an emergency are mainly dependant on well-prepared persons acting on well-prepared emergency plans equipped with good information. Any form of centre should serve the purpose of making these people more effective in performing in accordance with the pre-prepared emergency plans. At no time should the centre be seen as absolutely critical in the emergency planning, preparedness and management gamut, although it does perform an important function.

The emergency response philosophy applied should be that the EMC is activated immediately after an alarm condition has been received and communicated by the Station Operation Room or Control Room. Activation entails a process of taking “battle stations” immediately. The Management Team and emergency centre support staff go to the EMC as soon as possible. The various types of appointed Emergency Controllers go to dedicated, pre-determined holding points called “battle stations” from where they will receive and execute instructions and supply the EMC with feedback.

EMERGENCY MANAGEMENT CENTRE

An emergency management centre is the protected site location where management decisions are made and coordinated responses are orchestrated and related to an emergency incident. It is designed and equipped to provide staff support to commanding officials in coordinating and guiding response to emergency incidents and is in a secure centralised location, with adequate communications for command and control during a disaster or emergency.

The EMC normally includes the space, facilities and protection necessary for the following broad functions:

- **Command:** The exercise of authority and direction by a properly designated commander over assigned functions that are responding to the emergency.
- **Control:** Coordination and control of activities, including emergency planning and preparedness, and controlling the use of internal and external resources.
- **Communications:** Communications between the EMC and response personnel as well as the issuance of emergency information, warnings and instructions to all persons on Eskom premises and to the general public.
- **Intelligence:** Intelligence is collected to help the incident manager and emergency planners determine what next step to take in mitigating the emergency.

1. Location

- The ideal would be to have a centre that is not directly affected by the risks that it should serve, or by external influences, e.g. too close to an area where the media

may gain access, rioters interfere or damage is possible from involved plant or machinery.
Additional aspects to be considered may include, but are not limited to: Possibility of flooding (water ingress); inclined land (runaway vehicles or landslides); structural collapse (masts, towers and tall trees in the immediate vicinity); lightning strike (if situated on high ground) and external surveillance (if situated near public buildings).

- The centre should be within a reasonable (not more than 10 minutes) walking distance from most areas of the main plant.
- A purpose made structure inside the security perimeter, yet separated from the plant, is advisable.
- The EMC building should be slightly elevated to avoid storm water ingress from all directions.
- Notwithstanding the above, consideration should be given to existing structures and spaces that might be suitable, even if not perfectly ideal, for the purpose of an EMC.

2. Size

- A footprint of 40m^2 should be sufficient as minimum, with a maximum of 60m^2 if space is available.
- A central open area large enough to house a maximum of 25 people will be required where the command and control activities will take place.
- Such central open space should be provided with furnishings that are as flexible as possible, in order to allow for multiple usages ranging between classroom lay-out, board room lay-out, break-away groups or any other configuration needed.

3. Typical construction

- The building should be constructed of solid material and provide for at least two means of escape.
- Access to the centre must be limited to authorised personnel only. This will require a form of security controlled access, burglar proofed windows and security doors. The secondary escape door may be accessible from inside the centre only (i.e. no external door handle, if security is a concern).
- Power supply should be uninterruptable, requiring UPS facility and backup power supply. Backup power must be sourced from a dedicated standby diesel generator, unless the entire site has its own emergency supply (e.g. power stations with station standby provisions). The UPS will provide continuous power during the cut over, as well as surge protection for sensitive electronic equipment.
- Care should be taken to ensure that all services are routed to this building. These include water, sanitation, power and computer networking.
- Provision of parking should ideally be planned around the expected maximum number of users, whether during an emergency or when the centre is used for training and meetings.

4. Internal layout

- The drawing in Appendix B is indicative of a typical EMC.
- Where possible provision should be made for all amenities, for example toilets and kitchen areas, but these may be situated in other parts of adjacent and accessible buildings.
- Additional to the central open space (as mentioned in 2.b and 2.c) peripheral rooms should be provided for;
  - Four telephone operators
  - Radio operator
  - Confidentiality room/s
  - Runner
  - Amenities

  If the premises would require active guarding, a weather proof “guardhouse” provision must be made for the guard/s.
- These rooms should be constructed from modular material in order to allow for reconfiguration in the future; and should be of materials that provide the highest level of practicable sound proofing.
- All available internal walls which line the open space, the telephone room and radio room should be equipped with an equal number of soft pin boards and white magnetic marker boards.
- Ample air supply, low noise air conditioning and an emergency extraction system, suitable for the size and lay-out of the EMC should be provided.
- Ample lighting should be provided for all rooms with consideration given to lights directed towards the white boards and pin boards. Care must be taken with windows as these may negatively affect the functionality of projectors, computer screens and television screens. (Lights provided with dimmer switches for general lighting and spot lighting on the walls to illuminate maps, photos and diagrams when needed will enhance the practicality and flexibility of the centre.)
- The centre should be utilised regularly. Due to the flexible nature of the centre it may even be used for training and meetings, other than EP-related activities. It should be clearly stated that any activation of the centre will disrupt such alternative usage, as emergencies will take priority.
- It is advisable that the EP officer has their office within this building.

5. Resources

- Enough free standing tables and chairs for the estimated 30 persons, as to allow for maximum flexibility.
- Cabinets, that should contain paper copies of plant area drawings, pre-plans or contingency plans, contact details and any other useful information, should be provided.
- Base station Radio\s provided with headsets, as used by the power station.

- At least five telephones, preferably on a headset capable mini switchboard configuration.
- At least ten hard-wired network points, at the maximum speed possible. Provision should also be made for wireless networking as this will enhance the flexibility of the open space.
- At least one desktop computer for general use.
- A multifunction printer capable of scanning, faxing and printing.
- Data projector and screen. Where possible a Wi-Fi capable projector should be use, aligning with the flexibility of the open space.
- An occurrence book for record keeping of important decisions and events.
- A point where the Public Address system can be controlled from.
- Independent power and water supply for a maximum of three days. All expectations are that the centre will not be operational for much longer than 12 hours at a time, yet being prepared with regard to water and electricity is prudent.
- An intercom system at the main entrance to the EMC.

6. Alternative (Backup)

- A suitable alternative venue or venues must be identified for conditions where the designated EMC is not accessible. Such alternative may not be equipped in the same manner as the main EMC.
- Due to the possibility that any alternative EMC might not have the same resources as the main EMC it is imperative that all persons assigned with duties related to the EMC have in their possession a file with critical information such as relevant contingency plans, appointments, procedures, lists, data and contact details.

7. Optional extras

- The following items can be useful, but are not seen as essential to an effective EMC.
  - CCTV
  - Alternate switchboard
  - Voice logging
  - Video conferencing
  - Flat screen television
  - Any other toy or gadget that might make life a little easier in the EMC

8. Conclusion

The performance and clear-decision making of a team busy managing an emergency will be greatly enhanced by a well-equipped and comfortable room from within which they can operate.

Any equipment provided should be of familiar type, otherwise decision-making will be hampered by having to figure out how the stuff works.

Whether this guideline is followed or not it is important to apply the KISS principle:

Keep It Simple and Sustainable