Eskom	Standard	OHS

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Compiled by	Functional Responsibility	Authorised by
.....	.....	.....
PG May	**M Moahlodi**	**K Pather**
Senior Advisor - Fire Risk and Emergency Management	**Senior Manager OHS Sustainability Systems**	**General Manager Sustainability Systems**
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1. INTRODUCTION

Emergencies threaten or may cause harm to the lives of employees, members of the public, plant, equipment, and may cause damage to property, degradation to the environment, be a security threat and disturb continuity of supply (production) and the rendering of services. This document sets the minimum requirements for an adequate level of preparedness, response and recovery for all Eskom's OUs/BUs/Sites and projects to prevent or minimise the impact of an emergency pertaining to human life, the environment and the securing of assets.

2. SUPPORTING CLAUSES

2.1 SCOPE

This standard prescribes the minimum requirements for the establishment of an emergency planning structure, risk identification, the development of contingency plans, training of staff and emergency response teams, and the evaluation and review of the emergency preparedness plan.

2.1.1 Purpose

The purpose of this standard is to ensure that all Eskom business areas and installations meet the minimum requirements for emergency planning in order to:

a) regain control of an emergency and to mitigate anticipated consequences related to an emergency;

b) save lives;

c) render first aid, to provide critical medical treatment and to manage the treatment of injuries;

d) communicate and maintain worker and public trust;

e) protect, to the extent reasonably practicable, property, environment and emergency workers; and

f) prepare, to the extent reasonably practicable, for the resumption of normal social and economic activity.

2.1.2 Applicability

This document shall apply throughout Eskom Holdings SOC Ltd, subsidiaries and where Eskom has a controlling interest.

2.1.3 Effective date

This document will be effective from the date of authorisation.

2.2 NORMATIVE/INFORMATIVE REFERENCES

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

2.2.1 Normative

[1] 32-727: Safety, Health, Environmental and Quality (SHEQ) Policy

[2] *238-53:* Emergency Preparedness and Response Requirements for Nuclear Installations Standard
[3] 32-108: Eskom Firefighting Organisation
[4] 32-107: Eskom Firefighting Training Programme
[5] 32-477: Eskom Safety, Health and Environment Training and Development Standard
[6] 240-79537982: Security Threat and Risk Assessments
[7] 32-124: Eskom Fire Risk Management
[8] 32-391: Eskom Integrated Risk Management
[9] 240-125603426: Security Division Risk and Resilience Management Plan
[10] 240-86502245: Crisis Communication Procedure.

2.2.2 Informative

[11] Enterprise Risk & Resilience Policy (32-86)
[12] Standard for Business Continuity Management (240-79747329)
[13] ISO 14001 Environmental Management System Standard
[14] ISO 9001 Quality Management Systems Requirements
[15] ISO 45001 Occupational Health and Safety Standard
[16] The National Environmental Management Act 107 of 1998
[17] Occupational Health and Safety Act 85 of 1993
[18] The latest King report
[19] Disaster Management Act No 57 of 2002
[20] NFPA 1600
[21] Disaster and Emergency Planning: A Turker
[22] Crisis Leadership: Ian I Mitroff
[23] National Key Point Act 102 of 1980
[24] International Atomic Energy Agency Safety Guide No. 50-sg-06
[25] Industrial Emergency Preparedness: Robert Kelly
[26] ISO 23601:2009 Safety Identification — Escape and Evacuation Plan Signs

2.3 DEFINITIONS

Definition	Explanation
Contingency Plan	A plan designed to take account of a possible future event or circumstance.
Danger	Anything which has the potential to cause harm.

Definition	Explanation
Disaster	A disruption of the human ecology that exceeds the capacity of the community to function normally.
Emergency	Any unplanned event, of such a nature or magnitude that cannot be coped with as a normal daily activity of the Eskom unit, which results, or could result in danger to the health or safety of persons, a threat to security, damage to property, plant, equipment or the environment.
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 the 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; and • Providing for post-emergency recovery and rehabilitation.
Emergency Preparedness Co-ordinator	A person designated in writing with the assigned duty of compiling and implementing an emergency preparedness plan.
Emergency Preparedness Plan	A plan as contemplated in the EPP Template (240-77460915)
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, the Transmission grid and Distribution network.
Recovery	Measures or activities to recover from an emergency and to bring the situation back to normal in the shortest time and in a cost-effective way.

Definition	Explanation
Risk	The effect of uncertainty on objectives expressed as the probability that injury or damage will occur, for purposes of this standard.
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 Preparedness
EPP	Emergency Preparedness Plan
EMC	Emergency Management Centre, also known as EP Centre.
OHS Act	Occupational Health and Safety Act
SOC	State Owned Company
NFPA	National Fire Protection Association
SAPS	South African Police Service
SANDF	South African National Defence Force
ISO	International Standards Organisation

2.5 ROLES AND RESPONSIBILITIES

Senior Management shall be responsible for ensuring that this standard is implemented in their area of responsibility and all employees shall apply the procedure as required. 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 manager responsible for emergency preparedness in that business area.

2.6 PROCESS FOR MONITORING

Compliance to the standard will be monitored through the various Divisional OUs/BUs/Sites and projects audit/inspection plans.

2.6.1 Monitoring Controls

The monitoring controls will be verified in accordance with the frequency as outlined in table below:

MONITORING CONTROLS	METHOD USED	RESPONSIBLE	FREQUENCY
Emergency Drill	*Simulation or Desktop*	*EP Team*	*Bi-annually*
Full-scale Exercise	*Simulation (or a real event)*	*EP Team*	*Annually*
Review Emergency Preparedness and Response	*Management Review*	*Management Review Committee*	*Annually*

Review EP Risk Assessment and Contingency Plans	*Review state of risks and accuracy of information in the contingency plans*	*Head of EP*	*Bi-annually or as necessary*

2.7 RELATED/SUPPORTING DOCUMENTS

2.7.1 Appointment Documentation

Head of Emergency Preparedness Appointment: http://hyperwave.eskom.co.za/240-75026954

Emergency Preparedness Co-ordinator Appointment: http://hyperwave.eskom.co.za/240-65604481

Emergency Preparedness Appointment as Evacuation Co-ordinator: http://hyperwave.eskom.co.za/240-65605729

Emergency Preparedness Appointment as Evacuation Official: http://hyperwave.eskom.co.za/240-65605597

Emergency Preparedness Appointment as Transport Co-ordinator: http://hyperwave.eskom.co.za/240-65604295

First Aid Co-ordinator Appointment: http://hyperwave.eskom.co.za/240-65917781

Emergency Preparedness Fire Warden Appointment: http://hyperwave.eskom.co.za/240-65604549

Emergency Preparedness Communication Co-ordinator Appointment: http://hyperwave.eskom.co.za/240-75027014

2.7.2 EMERGENY PREPAREDNESS RISK ASSESSMENT AND CONTINGENCY PLANNING TEMPLATE

Emergency Preparedness Risk Assessment and Contingency Planning Template: https://hyperwave.eskom.co.za/240-126915114

2.7.3 EMERGENY PREPAREDNESS PLAN TEMPLATE

Emergency Preparedness Plan Template: https://hyperwave.eskom.co.za/240 - 77460915

2.7.4 EMERGENY PREPAREDNESS EXERCISE PLAN

Emergency Preparedness Exercise Plan: https://hyperwave.eskom.co.za/240 – 77460920

The Emergency Planning standard 32-123 Rev3 supersedes the Emergency Planning standard 32-123 Rev2

3. DOCUMENT CONTENT

3.1 REQUIREMENTS FOR DEVELOPING EMERGENCY PLANNING IN THE WORKPLACE

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

3.1.2 Eskom nuclear business units shall develop emergency plans in accordance with the Emergency Preparedness and Response Requirements for Eskom Nuclear Installation Standard 238-53.

3.1.3 For emergencies, relating to the Interconnected Power System (IPS), emergency procedures shall be developed by the relevant business areas**.**

3.1.4 OU/BU/Site and project specific emergency preparedness 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 removed from circulation, be destroyed and the originals archived.

3.1.5 Communication during emergencies must take place in accordance with Eskom's Crisis Communication Procedure 240-86502245.

3.1.6 Divisions may develop emergency planning instructions that will be more relevant to their Divisional reporting structures and level of operations.

3.1.7 The Eskom Policy on people with disability must always be applied when developing new emergency plans and when reviewing existing emergency plans to ensure that People with Disabilities are not discriminated against or left behind during an emergency.

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

3.1.9 The OU/BU/Site and project shall have an emergency alarm system with a public address facility where the number of employees is more than 25 or in multi-storey buildings. The alarm system shall be maintained and tested at a minimum of 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 OU/BU/Site and project shall appoint first aiders in accordance with the OHS Act General Safety Reg 3(4) requirement and shall train them to 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 signs, and be in compliance with the OHS Act General Safety Regulation 3(6).

3.1.13 All Eskom employees, temporary workers and contractors should be provided with emergency planning induction and awareness on basic firefighting measures.

3.1.14 All visitors, employees and persons required to perform work on site shall be made aware of the OU/BU/Site and project emergency reporting system (emergency numbers) and the evacuation procedure.

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

3.1.16 Emergency exits shall be made available in accordance with the number of personnel in the workplace and shall be identified with clear and visible signs in accordance with the Environmental Regulations for Workplaces, section 9 of the OHS Act.

3.1.17 Emergency exits and escape routes shall 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 shall lead to a place of safety.

3.1.18 An 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.

3.1.19 The site shall display drawings at conspicuous points, like notice boards, that show the emergency escape routes, firefighting equipment, alarm points, first aid boxes and escape doors. ISO 23601:2009 Safety identification — escape and evacuation plan signs, can be referenced as a guide for these drawings.

3.2 INFRASTRUCTURE

3.2.1 The most senior manager in the OU/BU/Site and project shall be appointed as Head of Emergency Planning and he/she shall appoint in writing, an Emergency Preparedness Team to develop and implement an integrated emergency planning programme for the operating unit, business unit or site or project. Each site must establish a local EP team, train and appoint an EP coordinator, evacuation official, fire warden and first aider as a minimum for that specific site.

3.2.2 Responsibilities, duties and authority shall be delegated in writing to the EP team members by the senior manager to ensure planning and the establishment of response teams.

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 Point 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 co-ordinators as reflected on the EP structure shall be in writing. They shall form part of the EP structure and they shall assist with the implementation and co-ordination of the emergency plan. They shall be involved in the:

- development and maintenance of an emergency planning programme.
- training and appointment of fire fighters.

- training and appointment 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.
- enforcement of law and order as well as protecting premises, resources, property and incident scenes.
- production-related issues.
- maintenance and plant operation-related issues.
- arrangement of environmental protection, clean-up and restoration.
- information management.
- risk and safety issues.
- training and the appointment of evacuation coordinators and the safe evacuation of personnel.

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

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

3.2.8 Structures of emergency planning teams within the OU/BU/Site and project or divisions shall be established with the representation of all disciplines and departments involved in the planning and dealing with an emergency situation (Appendix A is an example).

3.2.9 The emergency preparedness 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 shall cater for the internal planning and external planning (e.g. Joint Planning Committee) with all the necessary stakeholders.

3.2.10 Where relevant, the OU/BU/Site and project, 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 for the emergency preparedness team and shall be equipped with the necessary communication facilities and network as per the emergency response venue standard. (See Appendix B).

3.2.11 Emergencies shall be reported in accordance with the divisional protocol and crisis management system to ensure the proper handling of an incident**.**

3.3 RISK IDENTIFICATION

3.3.1 The OU/BU/Site and project shall conduct an emergency preparedness risk assessment to identify risks that may cause or result in a situation which may have a negative impact on Eskom the OU/BU/Site and project and its customers and develop an emergency preparedness plan to deal with the identified risks; there after conduct a risk assessment at a minimum once a year or on an *ad hoc* basis to update the emergency preparedness plan.

3.3.2 When conducting an emergency preparedness risk assessment the registered Emergency Preparedness Risk Assessment template 240- 240-126915114 must be utilised**.**

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 OU//BU/Site and project shall comply with the OHS Act's major hazards installation regulation**.**

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

3.3.5 The OU/BU/Site and project shall establish a system for continuous scanning of the micro- and macro- environment to identify factors, which may contribute to emergencies and ensure:

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

3.3.6 The risk assessment results should lead the organisation to the four strategies of risk management in order to ensure that all possible risks are attended to and possible contingency plans are developed.

3.4 CONTINGENCY PLAN

3.4.1 Contingency plans shall be developed to address all the identified risks of the OU/BU/Site and project 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

- Discipline action plans

3.4.3 A contingency plan shall cover or address post emergency stress, environmental rehabilitation and impact recovery.

3.4.4 OU/BU/Site and projects who have no access to municipal emergency services or cannot deal with emergencies using the available resources or emergencies are of a magnitude that external assistance is required, the OU/BU/Site and project shall enter into mutual aid agreements with other nearby emergency services or neighbouring businesses. 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 OU/BU/Site and project emergencies as part of the assistance or mutual aid agreement shall be invited by the OU/BU/Site and project to participate in the formulation of the pre-plans**.**

- Remote sites where no emergency services or neighbours are in close proximity, should use the Risk Management Process to manage the risk of losing Eskom's assets
- The EPP must contain a record of the capabilities of emergency services and agencies recorded as part of the contingency plans.

3.4.5 Other Contingency Plans

Contingency plans that are not covered in this standard as listed below, must be developed according to the relevant procedures and documents that detail the contents of such procedures.

- response and recovery of the technical operation of the OU/BU/Site and project for:
  - generation of electricity;
  - transmission substations and lines network;
  - national control operations and network; and
  - OU/BU/Site and projects, 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; and
- response and recovery of security system attack.

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 announcements on whether or not there are scheduled alarm tests that could take place during the meetings. The intention is that when none is scheduled, all alarms would indicate an actual event. If there was an alarm test scheduled, this would be mentioned, and the audience would know how 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 EP Training that is not Unit Standard-based may be presented in terms of 32-107. The training courses and syllabus shall include the following level of training:

- General awareness: All employees should have a basic understanding about the site EP plan, evacuation procedures and the raising of an 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 4 (four) hours and aimed at setting out the duties of evacuation officials during 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 (24 hours of training) 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 EMC, an incident/crisis management system and the evaluation of an emergency plan. The training/ workshop should be a minimum 4 (four) hours.

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

Training 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) Firefighting Training
   - Individuals: Firefighting using portable fire extinguishers (PFEs) 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 who have been given exposure to the use and operation of PFEs.

- Volunteer Firefighting Teams: Where the nature of risks or the work environment warrants the formation of firefighting teams, clear requirements have been 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 hazards in the work place 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 execution of exercises/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 containing the three main types of activities developed and evaluated by:

- 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 scenarios to invoke 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.

3.6.3 Specialist or outside consultancies can be utilised for evaluations and monitoring of emergency planning of critical and other special plants.

3.6.4 Emergency exercise should be realistic, and planned to address the OU/BU/Site and project identified risks and involve all disciplines.

3.6.5 Emergency exercises should be planned not to disturb the continuation of critical plant operation or cause an impact thereon. Where personnel have to evacuate the work environment it should be done in a cost-effective manner.

3.6.6 Arrangements should be made to avoid the unnecessary response of external emergency services. (Fire and emergency services, ambulance services, SAPS, SANDF, etc.)

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

3.6.8 Sustainability: Corporate OHS (Operational) – Fire Risk and Emergency Management shall be informed of all planned exercises or real emergency incidents.

3.6.9 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.

3.6.10 The Emergency Preparedness Plan content should be limited to information that is likely to remain the same for a predictable period. Information that is very likely to change quickly and unpredictably such as telephone numbers, names and positions should be captured in registered forms and

documents that are referenced in the EPP. In this manner the EPP can remain valid, without the need to review it in its entirety when a single piece of information changes. The revision of the referenced forms and documents can be effected rapidly, ensuring that the EPP remains both valid and accurate.

4. ACCEPTANCE

This document has been seen and accepted by:

- Management Systems Workgroup
- ISO 45001 Workgroup
- OHS Steering Committee
- Risk and Resilience
- Generation Fire and EP Forum
- Sustainability Systems Management Committee
- Distribution SHEQS
- Transmission Safety Risk Management

5. REVISIONS

Date	Rev.	Compiler	Remarks
December 2020	3	P.G. May	Standard was revised and published
February 2018	2	P.G. May	Standard adapted to form part of the Eskom management systems documents
February 2015	1	P.G. May	Addendums
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. REVIEW TEAM

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

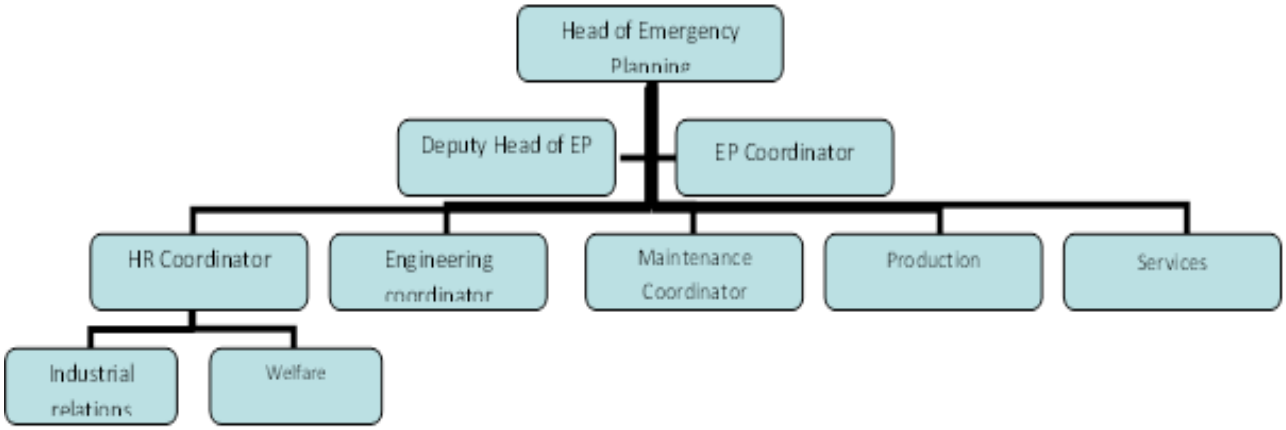
- Peter G May
- Marius Atterbury

7. ACKNOWLEDGEMENTS

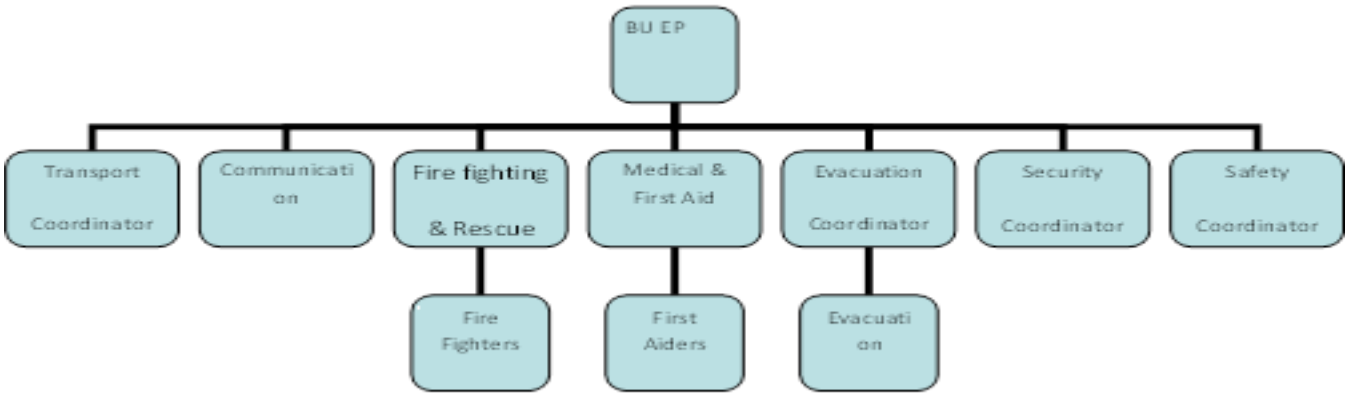
None

APPENDIX A: EXAMPLES OF AN EMERGENCY PREPAREDNESS STRUCTURE: FUNCTIONAL STRUCTURE

A.1 EMERGENCY PREPAREDNESS STRUCTURE EXAMPLE



A.2 EMERGENCY PREPAREDNESS FUNCTIONAL STRUCTURE EXAMPLE



Compulsory reporting

Reporting the activation of the EMC one level up also includes Sustainability Systems OHS (Fire Risk and Emergency Management Advisors). Information regarding the reason for the activation, the EP team members in attendance, external services in attendance and a brief overview of the sequence of events must be provided.

APPENDIX B: BASIC CONSIDERATIONS FOR EMERGENCY MANAGEMENT CENTRES (EMC) (INFORMATIVE)

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 while the execution of activities during an emergency being closer related to managing activities that are being performed.

Actions required during an emergency is 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 related to an emergency incident are made and coordinated responses are orchestrated. It is designed and equipped to provide staff support to commanding officials in coordinating and guiding responses to emergency incidents and is in a secure centralised location, with adequate communications for command and control during an 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

a. 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, OU/BU/Site and project is 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 the public, OU/BU/Site and project).
b. The centre should be within a reasonable (not more than 10 minutes) walking distance from most areas of the main plant.
c. A purposely made structure inside the security perimeter, yet separated from the plant, is advisable.
d. The EMC OU/BU/Site and project should be slightly elevated to avoid storm water ingress from all directions.
e. 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. A footprint of 40m^2 should be sufficient as minimum, with a maximum of 60m^2 if space is available.
b. 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.
c. Such central open space should be provided with furnishings that are as flexible as possible, in order to allow for multiple usages ranging between class room lay-out, board room lay-out, break-away groups or any other configuration needed.

3. Typical Construction

a. The OU/BU/Site and project should be constructed of solid material and provide for at least two means of escape.
b. Access to the centre must be limited to authorised personnel only. This will require a form of security-controlled access, OU/BU/Site and project 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).
c. Power supply should be uninterruptable, requiring a 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.

d. Care should be taken to ensure that all services are routed to this OU/BU/Site and project. These include water, sanitation, power and computer networking.
e. Provision for 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

a. The drawing in Appendix B is indicative of a typical EMC.
b. Where possible provision should be made for all amenities, for example toilets and kitchen areas. At OUs/BUs/Sites and projects these may be situated in other parts of adjacent and accessible OUs/BUs/Sites and projects.
c. Additional to the central open space (as mentioned in 2b and 2c) peripheral rooms should be provided for;
    i. Four telephone operators
    ii. A radio operator
    iii. Confidentiality room/s
    iv. Runner
    v. Amenities

    If the premises would require active guarding, a weather proof “guardhouse” provision must be made for the guard/s.
d. These rooms should be constructed from modular material, as to allow for reconfiguration in the future and should be of materials that provide the highest level of practicable sound proofing.
e. 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.
f. Ample air supply, low noise air conditioning and emergency extraction system, suitable for the size and lay-out of the EMC should be provided.
g. 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.)
h. 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.
i. It is advisable that the EP officer has their office within this OU/BU/Site and project.

5. Resources

a. Enough free-standing tables and chairs for the estimated 30 persons, as to allow for maximum flexibility.
b. 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.
c. Base station radio\s provided with headsets, as used by the power station.
d. At least five telephones, preferably on a headset capable mini switchboard configuration.
e. 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.
f. At least one desktop computer for general use.
g. A multifunction printer, capable of scanning, faxing and printing.
h. Data projector and screen. Where possible a Wi-Fi capable projector should be used, aligning with the flexibility of the open space.
i. An occurrence book, for record keeping of important decisions and events.
j. A point where the public address system can be controlled from.
k. 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.
l. An intercom system at the main entrance to the EMC.

6. Alternative (Backup)

a. 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.
b. 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

a. The following items can be useful, but are not seen as essential to an effective EMC at an OU/BU/Site and project.
    i. CCTV
    ii. Alternate switchboard
    iii. Voice logging
    iv. Video conferencing

v. Flat screen television
vi. 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 OU/BU/Site and project 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 **I**t **S**imple and **S**ustainable

EMERGENCY CENTRE FLOOR PLAN