

MINUTES

OF THE KOEBERG PUBLIC SAFETY INFORMATION FORUM (KPSIF), HELD ON THURSDAY, 27 MARCH 2025 AT KOEBERG NUCLEAR POWER STATION (VISITORS CENTRE)

Chairperson: Mrs Smokie La Grange

Deputy Chairperson: Vacant

Secretariat: Mr Lewis Phidza

RESIDENTS		
Surname and Name	Organisation	Present
Amien, Ishtiaq	Resident	
Amien, Salim	Resident	
Beaumont, Diane	Resident	
Beaumont, John	Resident	
Becker, Peter	Koeberg Alert Alliance	
Beyl, Trudy	Resident	In person
Browne, Peter	Resident	Apology
Coglan, Veronica	Resident	In person
D'Ambrosio, Tracy	Resident	
Daniels, Elizabeth	Resident	
Daniels, Mastoer	Resident	
Daniels, Shameemah	Resident	
De Vries, Gerrit	Resident	Apology
Fiet, J	Resident	In person
Fiet, L	Resident	In person
Fuller, Lorna	Resident	In person
George, Delores	Resident	
Harrison, Douglas	Resident	
Hintsa, Zelda Ann	Resident	In person
Jones, Charmaine	Resident	
Jones, Jacobus	Resident	
Jones, John	Resident	In person
Klaasen, Gabriel	Resident	In person
La Grange, Duval	Resident	In person
Lee, Anne	Resident	Apology
Makwena, Grietjie	Resident	
Malgas, Heinrich	Resident	In person
Malingo, Leticia	Resident	
Mapapu, Ntombizodidi	Resident	In person
Mayhew, Robert	Resident	In person
Mayhew, Sylvia	Resident	In person
McDaid, Liziwe	Resident	In person
Meyer, Judith	Resident	
Meyer, Verdun	Resident	

Surname and Name	Organisation	Present
Mgqutyana, Nomfundiso	Resident	
Minnie, Alana	Resident	
Mothibi, Miralda Wilhelmina	Resident	
Myers, Michael	Resident	
Naylor, Paul	Resident	Online
Ndikolo, Mazwi	Resident	In person
Nocker, Felice	Resident	
October, Ann	Resident	
Pannaye, Angelique	Resident	
Paries, Valerie	Resident	In person
Paulus, Elroy	Resident	Online
Petersen, Lydia	Resident	In person
Petersen, Maria	Resident	
Petersen, Marian	Resident	
Philander, Rochelle	Resident	
Rashalala, Mary	Resident	
Roebeck, Wendy	Resident	In person
Scott, Peter	Resident	
Sili, Florence	Resident	In person
Smith, Renier	Resident	
Swart, Alison	Resident	In person
Williams, Jenny	Resident	
Zeidan, Fatima	Resident	

OFFICIALS		
Surname & Name	Organisation	Present
Ahrends, Joy	Eskom Koeberg	In person
Bester, Peter	NNR	In person
Cronje, Nardus	Eskom Koeberg	In person
Dubazana, Sibusiso	DMRE	
Featherstone, Keith	Eskom Koeberg	In person
Flatela, Mvola	Eskom Koeberg	In person
Freeman, Samuel	City of Cape Town - DRM	In person
Jacobs, Phil	Eskom Koeberg	In person
Jeannes, Deon	Eskom Koeberg	Online
Joshua, Debbie	Eskom Koeberg	Apology
Kline, Kim	Eskom Koeberg	In person
Kotze, Anton	Eskom Koeberg	In person
La Grange, Smokie	KPSIF Chairperson	In person
Makgae, Reuben	NNR	In person
Malale, Disietsi	Eskom Koeberg	In person
Maree, Vanessa	NNR	Online
Mashele, Bravance	Eskom Koeberg	In person
Minnie, Johan	City of Cape Town	
Moduka, Victor	Eskom Koeberg	
Moonsamy, Gino	NNR	

Surname & Name	Organisation	Present
Motsumi, Teboho	DMRE	
Munsami, Nicholas	Eskom Koeberg	In person
Ndomondo, Thembinkosi	NNR	In person
Ntuli, Velaphi	Eskom Koeberg	Apology
Peters, Owen	Eskom Koeberg	Online
Phidza, Lewis	Eskom Koeberg	In person
Pie, Thabiso	DMRE	
Pienaar, Shaun	Eskom Koeberg	In person
Stephanus, Aminah	Eskom Koeberg	In person
Thomas, Mandy	City of Cape Town	Apology
Touffie, Sadika	Eskom Koeberg	In person
Van Schalkwyk, Tobie	Eskom Koeberg	
Vrey, Marius	WCG Agriculture	Online

DEFINITIONS

Definition	Description	Definition	Description
Accident	An unintended event, including operating errors, equipment failures or other mishaps	Disaster Management	A continuous and integrated multi-sectorial, multi-disciplinary process of planning and implementation of measures aimed at a) Preventing or reducing the risk of disaster b) Limiting the severity or consequences of disasters c) Emergency preparedness d) Responding rapidly and effectively to disaster, and Post-disaster recovery and rehabilitation
Emergency	An event that requires taking prompt action, or the special regulation of persons or property, to limit the risk to people's health, safety, or welfare, or to limit damage to property or the environment	Emergency Plan	A document describing the organisational structures, its roles and responsibilities, concept of operation, means and principles for intervention during an emergency at Koeberg
Evacuation	The rapid, temporary removal of people from the area to avoid or reduce short-term radiation exposure in the event of an emergency	Megawatts (MW)	A unit of measure - one megawatt is equal to one million watts
Millisievert (mSv)	A measure of the absorption of ionising radiation by the human body	National Electricity Grid	The network of high-voltage power lines fed by the various power stations, which supplies electricity to the country
Outage	The maintenance period on a power plant when several activities are performed on equipment that keeps the plant running	PGA / Pga / pga	Measured in units of g (standard earth gravity) which is equal to 9.81 m/s ²
Public Notification	Notification to the public of an emergency and the appropriate protective actions to be taken by using the installed siren and loudspeaker system, as well as local authorities, local radio, and television station	Radiation	Energy released in the form of particles or electromagnetic waves during the breakdown of radioactive atoms
Release	The controlled or accidental discharge of radioactive substances into the environment	Sheltering	A protective action whereby members of the public stay indoors with windows and doors closed, to reduce their exposure to radioactive material in an emergency

ABBREVIATIONS

Abbreviation	Description	Abbreviation	Description
AFI	Area for Improvement	AECC	Alternate Emergency Control Centre
CCGT	Closed Cycle Gas Turbines	CCT	City of Cape Town
CISF	Centralised Interim Storage Facility	CPA	Consumer Protection Act
CSB	Cask Storage Building	DOC	Disaster Operations Centre
ECC	Emergency Control Centre	EIA	Environmental Impact Assessment
EMP	Environmental Management Plan	EP	Emergency Plan
EPSOC	Emergency Planning Steering and Oversight Committee	EPZ	Emergency Planning Zone
FC	Functional Coordinator	FME	Foreign Material Exclusion
IAEA	International Atomic Energy Agency	ICCP	Impressed Current Cathodic Protection
INPO	Institute of Nuclear Power Operations	IPP	Independent Power Producer
ISO	International Standards Organisation	KCWIB	Koeberg Cooling Water Intake Basin
KEP	Koeberg Emergency Procedure	KNEP	Koeberg Nuclear Emergency Plan
KNPS	Koeberg Nuclear Power Station	KPSIF	Koeberg Public Safety Information Forum
LTI	Lost Time Injury	LTO	Long Term Operation
NATJOINTS	National Joint Operational and Intelligence Structure	NECSA	South African Nuclear Energy Corporation SOC Limited
NERSA	National Energy Regulator of South Africa	NNR	National Nuclear Regulator
NOSA	National Occupational Safety Association	NOSCAR	The grading of NOSA for safety performance
NRWDI	National Radiation Waste Disposal Institute	NSRB	Nuclear Safety Review Board
OCA	Owner Controlled Area	OEM	Original Equipment Manufacturer
PAZ	Precautionary Action Zone	PGA / Pga / pga	Peak Ground Acceleration
PSGM	Power Station General Manager	SABC	South African Broadcasting Corporation
SAMG	Severe Accident Management Guideline	SAPS	South African Police Service
SFP	Spent Fuel Pool	SGR	Steam Generator Replacement
SHEQ	Safety Health Environment and Quality	TEM	Traffic Evacuation Model
UPZ	Urgent Protective Action Planning Zone	WANO	World Association of Nuclear Operators

1. WELCOME AND OPENING

The Chairperson, Mrs. La Grange, welcomed the attendees and opened the Koeberg Public Safety Information Forum (KPSIF).

Mrs. Stephanus reminded the attendees to sign the attendance register as the register is used to ensure that everyone is accounted for in the event of an emergency.

The Chairperson stated that at the last meeting, Mr. Becker reported that he has not received emails sent by the Eskom (KNPS) officials. The Chairperson confirmed that he was part of the distribution list, however error messages were received (informing the sender that the email address, peter@koebergalert.org is not recognised) every time when emails were forwarded to Mr. Becker.

2. SAFETY BRIEFING

Mrs. Cloete conducted the safety briefing. Emphasis was made to the different types of emergency exit points, assembly points and the smoking area.

3. APOLOGIES

Apologies were recorded (refer to pages 1–3).

4. APPROVAL OF THE MINUTES (KPSIF held of 28 November 2024)

The Minutes of the KPSIF, which was held on 28 November 2024, were accepted. The Minutes of the previous KPSIF were proposed by Mrs. McDaid and seconded by Mr. Mayhew.

5. MATTERS ARISING FROM PREVIOUS MINUTES

5.1 Update of KPSIF Deputy Chairperson Position

Mr. Bester, NNR Programme Manager: Nuclear Power Plants, informed the members that the NNR received two nominations (from members of the public) for the KPSIF Deputy Chairperson position. The NNR Board carefully considered the nominations and concluded that neither of the candidates were eligible for appointment since they reside outside the 16km radius as per the requirement in the KPSIF Constitution. It was concluded that the NNR should re-advertise the Deputy Chairperson position (this will

be for the fourth time since the term of office ended for the previous Deputy Chairperson).

5.2 KPSIF Constitution Update

The Chairperson informed the members that two meetings were held (since the last KPSIF) to discuss the proposed amendments to the KPSIF Constitution, which was subsequently adopted by the members on 30 January 2025. The revised KPSIF Constitution will be forwarded to the NNR for ratification.

6. PRESENTATIONS

6.1 Koeberg Quarterly Feedback

Ms Mashele, Koeberg Plant Manager, conducted a presentation on the Koeberg quarterly feedback. Emphasis was made to the following:

a. Radiological Safety:

Public dose - no uncontrolled or unplanned radioactive discharges.

b. Koeberg Units Operations Status:

Status update

Koeberg Unit 1 – Outage 127

- Outage 127 commenced on 14 February 2025
- No significant Nuclear Safety related events
- Long-Term Operation (LTO) activities (including modification)
- Safely completed plant shutdown and unloading of nuclear fuel from Reactor.

Koeberg Unit 2 – Status update

- Unit 2 Reactor tripped on 2 March 2025, when the scram breaker was inadvertently de-energised (non-technical event). The plant responded as expected in accordance with its design. The cause of the trip was identified and resolved. The plant started up successfully on 5 March 2025.
- Subsequently, the unit was taken offline due to a steam leak on the secondary system (Moisture Separator Reheater System) on the turbine.
- The unit start-up was completed in line with the operating procedures. The Unit successfully synchronised back to the national grid on 9 March 2025.
- NNR Public Hearings scheduled between 29 September – 4 October 2025 for Koeberg (Unit 2) extension.

c. Koeberg Siren Testing

- The Koeberg Full Volume Siren test was conducted between 4-6 March 2025.
- The test involved the activation of three types of functions on the sirens from four different control stations.
- All 82 off-site sirens were individually observed by Eskom staff to check for the sound quality for each of the three test functions. 1) a nuclear alarm tone, 2) a pre-recorded digital voice message that plays after the alarm tone, and 3) a live voice message, spoken over a microphone, done independent from the alarm tone and digital voice message
- All defects were resolved within the three test days and the applicable sirens and control stations were retested to confirm 100% operability, which concluded another successful Full Volume Siren test on 6 March 2025

d. Koeberg Nature Reserve

- The public will be informed of the opening/closure of the Koeberg Nature Reserve via local news media

e. Koeberg Response to previous action

- On 18 October 2024, a contractor was caught tampering with a plant component and was subsequently arrested
- The court case is scheduled to continue 10 June 2025

f. Concluding remarks

- Koeberg Nuclear Power Station continues to operate safely and reliably.
- The focus was on the execution of Outage 127, preparing for Outage 227, and the implementation of actions from the NNR Unit 1 LTO directive.
- Several strategic projects were implemented at Koeberg to extend the life span of the plant, thus ensuring continued contribution to the local economy.
- There were no uncontrolled / unplanned radioactive discharges, and therefore no new risk to the public and environment

Questions raised from the presentation:

Question 1:

Mrs. McDaid asked what caused the shutdown of Unit 2

Response:

Ms Mashele responded that the operators were scheduled to isolate the breaker on Unit 1. However, in executing the job, the operators needed to verify their observations on Unit 2. In so doing, they accidentally bumped against the breaker on Unit 2, which necessitated the unit to be shut down. This led to human error caused by the certified field operators (non-reactor), this was followed by a workstop where the lessons learned were discussed and shared across the station.

Question 2:

Ms. Petersen enquired about a Statement released by Eskom about a leak that occurred, and the feedback given at KPSIF is that it was caused by human error. She asked for clarity.

Response:

Ms Mashele responded that the first event happened on 2 March 2025, and the other event occurred when the unit was taken offline due to a steam leak on the secondary system.

Question 3:

Mr. Klaasen asked what precautions were taken to prevent a recurrence.

Response:

Ms Mashele responded that personnel will attend intensive human performance training to ensure that they perform work more effectively.

Question 4:

Ms McDaid asked why the contractor (perpetrator) had access to site and what improvements have been implemented to prevent recurrence.

Response:

Ms Mashele responded that the person was a supplementary worker and therefore authorised to be on site.

Mrs. Stephanus informed the members that extensive security measures, which included criminal checks, were conducted. In addition, the operational experience was also shared. Security monitoring and controls were to be increased.

Question 5:

Mr John Jones asked how to go about applying for a permit to visit the Koeberg Nature Reserve.

Response:

Mr. Phidza responded that the public is reminded via the local newspaper, also via Eskom website, social media page, and email

6.2 Koeberg Long-Term Operation update

Ms Malale, Koeberg Engineering Section Manager, conducted a presentation on the status of Koeberg's Long-Term Operation. She made mention of the following.

- Koeberg Unit 1 was issued with a Long-Term Operation (LTO) licence from the National Nuclear Regulator (NNR) allowing it to operate for an additional 20 years until 21 July 2044.
- The NNR directive contains the following licence conditions.
 - Post-LTO safety case commitments
 - The periodic safety review (PSR) safety improvements and
 - A list of specific requirements identified by the NNR
- The post-LTO safety improvement activities according to the NNR LTO directive (i.e., activities after LTO implementation) were progressing well.
- All safety improvements in the Periodic Safety Review Integrated Implementation Plan (PSR IIP) were progressing well and were on target for completion by their due dates.
- The NNR was kept informed about the LTO-related activities. The NNR scrutinised all Eskom submissions and demanded the highest nuclear standards to be kept.
- Koeberg remains safe and was being enhanced with more safety features and processes. This continuous improvement was a hallmark of the nuclear industry safety standards.

Questions raised from the presentation:

Question 1:

Mrs McDaid requested clarity on what was meant with the statement “first of a kind project” pertaining to the Impressed Current Cathodic Protection (ICCP) Project

Response:

Ms Malale responded that it does not mean that the containment structure was not fit for purpose. There was a need to continually monitor and assess degradation to maintain safety and manage aging. “First of a kind” means that technology (ICCP) was not commonly used on a nuclear power plant for application on the outer (exterior) wall of containment. It was used on other structures, such as bridges, and was proven to be successful in mitigating the effects of corrosion and degradation.

Question 2:

Mrs. McDaid asked on what basis will the license be issued?

Response:

Mr Touffie stated that the modification itself was a safety improvement to assist in managing the containment structure. The design is yet to be implemented.

6.2.1 National Nuclear Regulator: 2024 Regulatory Nuclear Emergency Plan Exercise (at KNPS) Feedback

Mr. Makgae, NNR Senior Specialist, conducted a presentation on the 2024 Regulatory Nuclear Emergency Plan Exercise. Emphasis was made to the following.

- The overall objective of the exercise was to test the readiness of KNPS and relevant local authorities in responding to a nuclear emergency.
- During the exercise - full response capabilities to the scenario evolution were required from on-site and off-site personnel, in accordance with response procedures.
- Findings were classified as non-compliances and observations
- Total number of findings, 16 (9 x non-compliances, 7 x observations)

- The effectiveness of the Integrated Koeberg Nuclear Emergency Plan was evaluated based on six specific objectives, with responses to four objectives deemed adequate and two assessed as partially adequate
- Although non-compliances were identified, the overall response to the evaluated specific objectives indicates that the IKNEP remained viable for the protection of persons, property, and the environment.
- Eskom was required to submit a corrective action plan to address the identified non-compliances and observations by 30 April 2025. In addition, Eskom was required to review the observations to explore potential improvements in future responses and/or enhancements to the emergency plan

Questions raised from the presentation:

Question 1:

Mr Mayhew stated that the SANDF disbanded their role at the 2022 Regulatory Nuclear Emergency Plan Exercise and the NNR gave the assurance that the SANDF will take part in the 2024 Regulatory Nuclear Emergency Plan Exercise, which was not the case. He therefore asked what the NNR was doing about the shortcoming

Response:

Mr Makgae responded that the function required was of the CCT Fire & Rescue Service, and that the SANDF only played a supporting role in the exercise. The Emergency Planning, Steering and Oversight Committee (EPSOC), which is supported by the National Joint Operational and Intelligence Structure (NATJOINTS), played a role pertaining to continuous improvement, which investigated the implementation of the effectiveness of the response plans.

Mr Bester stated that the SANDF representative was present at the CCT DOC. He alluded that the aim of the Regulatory Nuclear Emergency Plan exercise was to test the readiness of KNPS and relevant local authorities in responding to a nuclear emergency. A National Disaster will be declared in a nuclear emergency, meaning that everybody and infrastructure that are

needed, will be made available. Furthermore, Mr Bester stated the decontamination unit has not been disbanded but that it has been relocated to Bloemfontein

Question 2:

Mr. Mayhew asked why the SABC was not part of the 2024 Regulatory Nuclear Emergency Plan exercise

Response:

Mr. Bester responded that the SABC was not the only means to communicate to the public, and that the other available platforms were useful. The overall performance of the objective was found to be partially adequate.

Question 3:

Mrs. McDaid questioned the way in which the NNR presented the 2024 Regulatory Nuclear Emergency Plan Exercise Report as it did not reflect the good work that were performed by some responders/authorities. Furthermore, she stated some findings that were serious offences, were classified as low.

Mrs. McDaid stated that she submitted a report on the 2024 Regulatory Nuclear Emergency Plan Exercise to the NNR.

Response:

Mr. Makgae responded that the findings and observations in the report were noted and that the NNR will respond via the Communication Department.

Question 4:

Mrs. Petersen stated that some of the identified findings (non-compliances and observations) were repeat offences and therefore asked what the NNR was doing about it.

Response:

Mr. Makgae responded that the response and monitoring by relevant authorities are tested during every exercise. The aim of the exercise was to identify the areas for improvement.

Question 5:

Mrs Roebeck asked what will happen when relevant local authorities make mistakes in responding to a nuclear emergency.

Response:

Mr Makgae stated that frequent training was conducted to first responders He assured that sufficient information was communicated to the public and that the public were aware of what were expected of them in a nuclear emergency.

7. GENERAL

7.1 Retirement of Mr. Keith Featherstone

The Chairperson informed the members that Mr. Featherstone was to retire. She thanked him for his contribution, leadership and commitment during his professional career and wished him well for the future.

7.2 Feedback on the Spent Fuel Pool/Waste Management

Mr. Mayhew requested that feedback be given on the spent fuel pool / waste management at the September 2025 KPSIF

7.3 NATIONAL JOINT OPERATIONAL AND INTELLIGENCE STRUCTURE (NATJOINTS)

Mrs. McDaid proposed that NATJOINTS conduct a presentation on their roles and responsibilities during a nuclear incident. It was concluded that the NNR table the request at the next EPSOC.

8. DATE OF THE NEXT KPSIF

The next KPSIF is scheduled to take place on *Thursday, 26 June 2025*. The venue of the KPSIF will be confirmed, dependent on the availability and if it meets the necessary requirements (i.e. safety, Wi-Fi, security, kitchen facility, etc.)

9. PROPOSED AGENDA ITEMS FOR THE NEXT KPSIF

The following items may be discussed at the next KPSIF

- Koeberg Quarterly Feedback (Eskom)
- Status on Regulatory Nuclear Emergency Exercise Findings

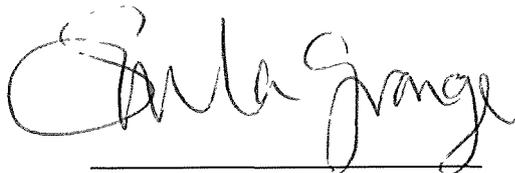
- Status of Traffic Evacuation Model (TEM)
- Koeberg Emergency Plan

10. CLOSING

The Chairperson thanked the attendees for their contribution and adjourned the KPSIF at 20 58

KPSIF Action item list – 27 March 2025

No.	Action	Responsible	Due date	Status
1	Provide feedback on the spent fuel pool / waste management	Eskom	25 September 2025	Open
2	Table the request at EPSOC for NATJOINTS to conduct a presentation on their roles and responsibilities at the KPSIF	NNR	27 June 2025	Open



MRS SMOKIE LA GRANGE
(Chairperson)

25 September 2025
(Date)