

**Koeberg Public Safety Information Forum (PSIF) Minutes of the meeting
held on Thursday, 29 September 2022**

Venue: MS Teams (virtual Platform)

Chairperson: Ms Smokie La Grange

Deputy Chairperson: Cyril Mack

Name and Surname	Organisation	Present
Andrews, Melanie	Resident	A
Beyl, Trudy	Resident	A
Becker, Peter	Koeberg Alert Alliance	A
Bellinger, Sue	Resident	A
Bennet, George	Resident	P
Browne, Peter	Resident	Apologies
Estherhuyse, Freda	Resident	P
Goss, Clive	Resident	Apologies
Harrison, Douglas	Resident	P
Iosiphakis, John	Resident	Apologies
Jones, John and Anneke	Resident	P
Kiehm, Elke	Resident	A
Koopman, Shamone	Resident	P
Kruger, Charmaine	Resident	A
Kruger, Willem	Resident	A
La Grange, Duval	Resident	Apologies
Lee, Nick and Anne	Resident	Apologies
Mayhew, Robert	Resident	P
Mayhew, Sylvia	Resident	P
Mallison, Clyde	Resident	A
McDaid, Liz	Resident	Apologies
Meyer, Carola	Resident	A
Naylor, Paul	Resident	Apologies
Pannaye, Angelique	Resident	Apologies
Pannaye, Eric	Resident	Apologies
Pekeur, Wendy	Resident	A
Petersen, Lydia	Resident	A
Dr Reutener, Marcelle	Resident	P
Scott, Peter	Resident	A
Slabbert, Johan	Resident	P
Snyders, Edward	Resident	A
Stockhowe, Rita	Resident	A
Taylor, Roberta	Resident	A
Terrell, Nicholaas	Resident	P
Van der merwe, Marinda	Resident	P
Van der Westhuizen, Marinda	Resident	P
Whitehouse, Jennifer	Resident	P

OFFICIALS		
Bester, Peter	National Nuclear Regulator	P
Bele, Joyce	Eskom Koeberg	P
Bruiners, Rodger	National Nuclear Regulator	A
Coetzee, Ubert	National Nuclear Regulator	P
Cronje, Nardus	Eskom Koeberg	P
Dibi, Phumelelo	Eskom Koeberg	P
Ditlhake, Kentse	Eskom Koeberg	A
Featherstone, Keith	Eskom Koeberg	P
Franco, Johannes	City of Cape Town	Apologies
Heynes, Godfrey	Eskom Koeberg	P
Jeannes, Deon	Eskom Koeberg	P
Jurgens, Kurt	Eskom Koeberg	P
Joshua, Debbie	Eskom Koeberg	P
Julius, Graham	Eskom Koeberg	Apologies
Lenders, Ricky	City of Cape Town – Disaster Risk Management	Apologies
Le Roux, Jurina	Eskom Koeberg	P
Mack, Cyril	PSIF Deputy Chairperson	Apologies
Mashele, Bravance	Eskom Koeberg	P
Maree, Marc	Eskom Koeberg	Apologies
Maree, Vanessa	National Nuclear Regulator	A
Minnie, Johan	City of Cape Town	P
Moonsamy, Gino	National Nuclear Regulator	P
Morebantwa, Phenyoy	DMRE	P
Ntutha, Ntsiki	City of Cape Town	P
Ncuru, Anele	Eskom Koeberg	A
Phidza, Lewis	Eskom Koeberg	P
Powell, Charlotte	City of Cape Town	A
Ramerafe, Mothusi	National Nuclear Regulator	A
Silinga, Nangamso	National Nuclear Regulator	P
Stephanus, Aminah	Eskom Koeberg	P
Swart, Paul Cllr	Ward Counsellor (DA)	Apologies
Thomas, Mandy	City of Cape Town	P
Van Rensburg, Stephen	City of Cape Town	P
Valaitham, Mahesh	Eskom Koeberg	P

Abbreviation/definition list			
Abbreviation	Description	Abbreviation	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: <ul style="list-style-type: none"> 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 e) Post-disaster recovery and rehabilitation
AFI	Area for Improvement – usually the outcome of a benchmarking exercise, which enables the identification of successful practices/strategies implemented by other organisations in the same or similar industry,	GCE	Group Chief Executive
Boron	A very hard, almost colourless crystalline metalloid element that in impure form exists as a brown amorphous powder. It occurs principally in borax and is used in hardening steel. The naturally occurring isotope boron-10 is used in nuclear control rods and neutron detection instruments.	ECC	Emergency Control Centre
CIA	Central Intelligence Agency	KNEP	Koeberg Nuclear Emergency Plan
Donax	A genus of small, edible saltwater clams, marine bivalve molluscs. The genus is sometimes known as bean clams or wedge shells or white mussels; Donax species have numerous different common names in different parts of the world.	CISF	Centralised Interim Storage Facility
CISF	Centralised Interim Storage Facility	SPF	Spent Fuel Pool
CSB	Cask Storage Building	TEM	Traffic Evacuation Model
DOC	Disaster Operations Centre	Evacuation	The rapid, temporary removal of people from the area to avoid or reduce short-term radiation exposure in the event of an emergency.
ECC	Emergency Control Centre	UAE	United Arab Emirates
EIA	Environmental Impact Assessment	INPO	Institute of Nuclear Power Operations
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.	UPZ	Urgent Protective Action Zone
EPZ	Emergency Planning Zone	EPSOC	Emergency Planning Steering and Oversight Committee
FC	Functional Coordinator	CPA	Consumer Protection Act
IPP	Independent Power Producer	KEP	Koeberg Emergency Procedure

		mSv	The millisievert (mSv) is a measure of the absorption of ionising radiation by the human body.
ISO	International Standards Organisation	CCT	City of Cape Town
KNPS	Koeberg Nuclear Power Station	IAEA	International Atomic Energy Agency
NOU	Nuclear Operating Unit	SABC	South African Broadcasting Corporation
SGR	Steam Generator Replacement	TISF	Transient Interim Storage Facility
KPSIF	Koeberg Public Safety Information Forum	WANO	World Association of Nuclear Operators
LTI	Lost Time Injury	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.
MW	Megawatts. A unit of measure - one megawatt is equal to one million watts.	CCGT	Closed Cycle Gas Turbines
NECSA	South African Nuclear Energy Corporation SOC Limited	DOC	Disaster Operations Centre
NNR	National Nuclear Regulator	NOSCAR	The grading of NOSA for safety performance.
NOSA	National Occupational Safety Association	Radiation	Energy released in the form of particles or electromagnetic waves during the breakdown of radioactive atoms.
NSRB	Nuclear Safety Review Board	NRWDI	National Radiation Waste Disposal Institute
OCA	Owner Controlled Area	AECC	Alternate Emergency Control Centre
OEM	Original Equipment Manufacturer	FME	Foreign Material Exclusion
Outage	Refers to the maintenance period on a power plant when a number of activities are performed on equipment that keeps the plant running.	National Electricity Grid	The network of high-voltage power lines fed by the various power stations, which supplies electricity to the country.
PAZ	Precautionary Action Zone	EP	Emergency Plan
PSM	Power Station Manager	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 situation.
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.	EMP	Environmental Management Plan
Release	The controlled or accidental discharge of radioactive substances into the environment.	UPZ	Urgent Protective Action Planning Zone
SAPS	South African Police Service	KCWIB	Koeberg Cooling Water Intake Basin
SHEQ	Safety Health Environment and Quality	WAC	Waste Acceptance Criteria
SSA	Sea Shore Act	SAMG	Severe Accident Management Guideline
TEM	Traffic Evacuation Model	NERSA	National Energy Regulator of South Africa
UAG	Unplanned Automatic Grid Separation	Hazmat	Hazardous material

1. Welcome

The Chairperson, Ms Smokie La Grange, welcomed everyone to the September 2022 PSIF. The Chairperson confirmed that a quorum was present as per the Koeberg PSIF Constitution (*a quorum constitutes of the Chairperson and four members of the public*), indicated by a show of hands by the members of the public present in the meeting.

2. Safety briefing

Mr Phidza highlighted the fact that everyone should ensure that they are safe wherever they are, ensure doors of their homes are locked, ensure they are not vulnerable to any attack whilst attending the online meeting and that they are able to safely evacuate in case of an emergency.

3. MS Teams meeting protocol and PSIF Code of Conduct

The chairperson informed the members that the PSIF protocol and PSIF Code of Conduct will be rotating on their screens for members to view. She informed them that the meetings are recorded for reference and minute-taking purposes and asked them to mute their microphones and videos unless they are speaking and also not to speak over each other and to use the chatbox to post any questions or comments.

4. Apologies

The following apologies were tendered

- Mr Cyril Mack (PSIF Deputy Chairperson)
- Mr Duval La Grange
- Mr Paul Naylor
- Cllr Paul Swart
- Mr Marc Maree
- Ms Liz McDaid
- Mr Clive Goss

5. Acceptance of the Minutes of the previous meeting of 30 June 2022

The Minutes of the 30 June 2022 meeting were approved by Ms Smokie La Grange and seconded by Mr Lewis Phidza.

5.1 Action list review – 30 June 2022 (see updated Action Item list at end of Agenda)

Mr Featherstone informed the members that there are two actions on the action tracking list. The issue of the reserve will be dealt with in the station quarterly report. The action to increase the frequency of the PSIF meetings as a result of the meetings that were running out of time and the agenda that was not being covered - will be tracked for the next two meetings although this has not been the case for the last three meetings.

6. Presentations:

6.1. Koeberg quarterly feedback - Mr Mahesh Valaitham Koeberg Power Station General Manager (Acting)

As per his introduction, Mr Valaitham shared his experience and background with the PSIF members.

He has been at Koeberg Nuclear Power station for 27 years (since 1995). He has worked in various Departments at Koeberg during this time, amongst others, Maintenance, Engineering and Operating. He has also fulfilled the role of Chief Advisor to the Chief Nuclear Officer (CNO) and Power station Manager. He has been the Koeberg Plant Manager for five years and since July 2022 he has been acting in the position of Power Station General Manager.

Question by Mr Mayhew

Mr Mayhew enquired whether the valve that was referred to in the presentation is the same valve that was incorrectly cut out as presented in the PSIF.

Response by Mr Featherstone

Mr Featherstone informed Mr Mayhew that this is not the same event as what was presented in the previous PSIF and that this event (that was presented) just highlights the significance if someone impacts the running unit, in that the alarms will sound, which gives the Operator the ability to respond and correct it, so that it doesn't impact operations.

Question by Mr Mayhew

Mr Mayhew enquired when raising and lowering the rods which leads to a loss of power as per his understanding, whether there is any pressure from the government for Koeberg to keep operating and whether Koeberg can perform it at will.

Response by Mr Valaitham

Mr Valaitham explained that at power, the control rods can be moved a few steps in or out with minimal or no impact to power generation. The risk is with slippage where the rods could fall in(to the reactor core) which could result in either a shutdown or a reactor trip. He further explained that they have the means and monitoring in place that will indicate if this is about to happen. In terms of the cycling of the rods that are performed three times per day, there is no loss in power. He explained the reason Koeberg were offline for three weeks was because they were in discussion with their counterparts in the industry trying to understand what caused this phenomenon and to get to the bottom of it with. Despite the pressure on the grid, based on the impact of loadshedding at the time, there were no pressure on Koeberg to return to production until they understood what caused the problem, the risks involved and the actions they needed to take to return the unit safely to power.

Question by Mr Bennett

Mr Bennet enquired from an overall provision of electricity and safety perspective, what changes have been brought about as a result of the instability of the grid. He asked if Eskom is in a position to provide guidance to the broader public on how to prevent "collateral damage" as a result of the irregular supply of electricity (how to avoid the malfunctioning of their appliances and equipment at home).

Response by Mr Phidza

Mr Phidza confirmed that there is an electricity safety programme in place that is run by Eskom's Distribution division which is focused on the safe usage of electricity. The programme also includes the process to follow when there has been damage to a customer's appliances and equipment.

6.2 Update on Koeberg Long Term Operation including the Steam Generator Replacement - Ms Bravance Mashele – Senior Manager LTO Programme and shared by Mr Mandlakayise Bassie - Senior Manager SGR (Acting)**Question by Mr Mayhew**

Mr Mayhew expressed concern about the finite life of concrete and steel specifically relating to the containment building. He enquired whether assessments have been done on the containment building, taking into consideration the additional 20 years of operation that will be added due to LTO. He also enquired as to who performed the assessment.

Response by Ms Mashele

Ms Mashele confirmed that the containment building structures have been included in the ageing analysis and assessment which factored in the additional 20 years of operation. The assessment yielded a positive outcome with regards to the additional 20 years of operation. Ms Mashele confirmed that the ageing analysis has been performed by the Original Equipment Manufacturer (OEM).

Question by Ms van der Westhuizen

Ms van der Westhuizen wanted to know whether any disciplinary action was taken against the team/persons responsible for the dropping of the steam generator.

Response by Mr Bassie

Mr Bassie explained that it is a contractual matter between Eskom and the main supplier, Framatome. Framatome is responsible for the results of the drop and Eskom is pursuing those concerns with them. Eskom cannot comment if there were any disciplinary recourse within Framatome, or if it was needed.

Comment by Mr Featherstone

Mr Featherstone explained that the Steam Generator was not physically dropped by people performing the work, but that the Steam Generator was positioned on a stand that allows the shell to rotate to do heat treatment. One of the legs of the stand broke off, the stand collapsed, and the Steam Generator rolled off the stand and dropped approximately a half metre onto the floor.

Comment by Mr Bester

Mr Bester added that it wasn't the steam generator itself that dropped, because work was still underway to manufacture the Steam Generator, but it was the bottom part of the Steam Generator that was being worked on at that stage (a sub assembly of the Steam Generator) that rolled off the stand and dropped onto the ground.

Mr Harrison posed the following three questions in the chat box**Question by Mr Harrison**

Mr Harrison enquired about Koeberg's decommissioning plan after 2045 and when the public will have access to it.

Response by Mr Featherstone

Mr Featherstone explained that there is a plan in place for 2025, as it is a requirement by the National Nuclear Regulator that Koeberg should have a decommission plan in place. He further explained that it is not a detailed plan but more of a strategy which conceptualises what will be done. He informed the members that as it stands the plan is suitable for decommissioning as it outlines the overall decommissioning strategy and approach and that it has been submitted to the NNR. He indicated that it can be shared with the PSIF members at a future meeting if requested.

Question by Mr Harrison

Mr Harrison enquired about the impact Long Term Operation (LTO) will have on the Vaalputs storage during LTO and decommissioning.

Response by Mr Featherstone

Mr Featherstone explained that Vaalputs has been informed of the planned 20-year life extension of Koeberg and they have indicated that they are able to handle the operational waste of Koeberg for an additional 20 years of operation, due to the size of the repository site.

Question by Mr Harrison

Mr Harrison enquired whether the link to the IAEA report can be included in the Minutes of the meeting.

Response by Ms Mashele

Ms Mashele responded that the publication of the IAEA report has to follow the IAEA protocols as discussed during the presentation - the IAEA will publish it on their website once ready. The link to the website is <https://www.iaea.org/newscenter/pressreleases/iaea-concludes-long-term-operational-safety-review-of-south-africas-koeberg-nuclear-power-plant>

Question by Mr Bennett

Mr Bennet enquired about how the additional scheduled maintenance plans will be impacted, as the compliance focus takes shape at the power station, and whether the public will be informed on the status of the extension of the Koeberg Nuclear License.

Response by Mr Valaitham

Mr Valaitham explained that there will be an increase in maintenance activities for the next four outages (two outages per unit) and that these outages will be between approximately 185 to 200 days. He further explained that the public will be involved in the participation process related to the extension of the life of Koeberg beyond 40 years.

Question by Mr Bennett

Mr Bennet enquired about the snag list that is required to meet global quality standards on how the plant is tracking and how Koeberg is managing the timelines required to meet global quality standards.

Response by Mr Valaitham

Mr Valaitham informed the member that it has been covered in Ms Mashele's presentation that timelines are being driven to meet the end of the 40 years.

6.3 Koeberg's Public Education Programme: Mr Lewis Phidza – Koeberg Stakeholder Management Manager

Question by Mr Mayhew

Mr Mayhew enquired whether there is consideration for the upcoming PSIF meetings to be held in-person which will allow for more to the residents to attend, rather than online, which poses a challenge to many.

Response by Mr Phidza

Mr Phidza explained that consideration has been given for the upcoming PSIF meetings to be held in-person. He informed Mr Mayhew that there is a strong possibility that the last PSIF meeting of the year (1 December 2022) will be held in-person and that this will be communicated to the members before the next meeting.

7.General

Question by Mr Harrison

Mr Harrison enquired whether the NNR will be offering any PSIF members a chance to participate in the upcoming 4 November 2022 NNR exercise.

Response by Mr Bester

Mr Bester explained that the NNR do have an Observer Programme in place for the upcoming 4 November 2022 Exercise, but due to practicalities, the nature of the exercise and for logistical reasons, the numbers will be limited. He informed the members that the Koeberg PSIF Chair and Deputy Chair and a few other external observers will be invited to form part of the 4 November exercise as observers.

8. Proposed Agenda items for the next meeting

- Koeberg Quarterly Feedback
- Koeberg management of civil structures (i.e., testing and assessment of the containment building)
- Fuel Management update
- Update on bird surveys done in the Nature Reserve

9. Date of next meeting

The date of the next PSIF meeting will be Thursday, 1 December 2022.

10. Closing

The Chairperson thanked everyone who attend and wished them well. The PSIF meeting was adjourned at 21:05

PSIF Action item list – after meeting of 29 September 2022

No.	Action	Raised by	Comment
1	Increasing the frequency of the PSIF meetings	Mr Naylor	Mr Featherstone addressed the issue in the PSIF meeting under General. He explained that for the past two PSIF meetings we have managed to address all the Agenda items and questions within the allocated time frame and that the item will be revisited when the need arises.
2	Opening of the Koeberg Nature Reserve	Mr Naylor	<p>There is an environmental issue that needs to be addressed before the reserve can be re-opened Once the work is complete, by the City, it is our intention to reopen the reserve, as long as there are no other operational constraints.</p> <p>Feedback will be provided each meeting.</p>