

Koeberg Public Safety Information Forum (PSIF)

Minutes of the meeting held on Thursday, 24 June 2021

Venue: MS Teams (virtual Platform)

Chairperson: Mrs Smokie La Grange

Deputy Chairperson: Natasha Leaner

Name and Surname	Organisation	Present
Adonis, Natasha	Resident	A
Antoniades, Simeï	Resident	Apologies
Browne, Peter	Resident	Apologies
Beyl, Trudy	Resident	P
Becker, Peter	Koeberg Alert Alliance	A
Bennet, George	Resident/GNB Energy Africa	P
Black, David	Resident	P
Black, Michele	Resident	P
Browne, Peter	Resident	Apologies
Goss, Clive	Resident	P
Goss, Marga	Resident	Apologies
Graaf, Michael	Resident	A
Harrison, Douglas	Resident	P
Iosiphakis, John	Resident	P
Jones, John and Anneke	Resident	A
Ketcher, A	Resident	A
Kiehm, Elke	Resident	P
Kruger, Charmaine	Resident	A
Kruger, Willem	Resident	A
Matlala, Obakeng	Department of Minerals Resources and Energy (DMRE)	
Mayhew, Robert	Resident	Apologies
Mayhew, Sylvia	Resident	Apologies
Mckinnell, Jenny	Resident	Apologies
Maigrot, Cynthia	Resident	A
Maigrot, Harold	Resident	A
Meyer, Carola	Resident	A
Moses, Bramwell	Resident	A
Naylor, Paul	Resident	P
Pannaye, Angelique	Resident	A
Pannaye, Eric	Resident	A
Petersen, Lydia	Resident	A
Scott, Peter	Resident	A
Snyders, Edward	Resident	A
Stockhowe, Rita	Resident	P
Siyo, Phinda	Resident	P
Taylor, Roberta	Resident	A
Visser, Ella	Resident	A

OFFICIALS		
Abrahamse, Steve	City of Cape Town	P
Bakardien, Riedewaan	Chief Nuclear Officer – Eskom	P
Bester, Peter	National Nuclear Regulator	P
Bruiners, Roger	National Nuclear Regulator	A
Cronje, Nardus	Eskom Koeberg	P
Ditlhake, Kentse	Eskom Koeberg	A
Featherstone, Keith	Eskom Koeberg	P
Franco, Johannes	City of Cape Town	A
Grose, Nora	Councillor – Ward 23	Apologies
Jeannes, Deon	Eskom Koeberg	Apologies
Joshua, Debbie	Eskom Koeberg	P
La Grange Smokie	PSIF Chairperson	P
Leaner, Natasha	PSIF Deputy Chairperson	Apologies
Lenders, Ricky	City of Cape Town – Disaster Risk Management	A
Makgae, Reuben	National Nuclear Regulator	P
Malgas, Isaac	Eskom Koeberg	P
Mashele, Bravance	Eskom Koeberg	P
Maree, Marc	Eskom Koeberg	P
Maree, Vanessa	National Nuclear Regulator	P
Matlala, Obakeng	Department of Mineral Resources and Energy	P
Minnie, Johan	City of Cape Town	P
Mnyanda Xolisa	Eskom Koeberg	P
Mogorosi, Tshepiso	National Nuclear Regulator	P
Moonsamy, Gino	National Nuclear Regulator	P
Moralie, Granville	Eskom Koeberg	P
Morland, Herman	Eskom Koeberg	P
Nomaninzi Msumza	Eskom Koeberg	P
Ncuru, Anele	Eskom Koeberg	P
Ndomondo, Thembi	National Nuclear Regulator	A
Ntuli, Velaphi	General Manager - Eskom Koeberg	A
Pienaar, Shaun	Eskom Koeberg	P
Powell, Charlotte	City of Cape Town	Apologies
Phidza, Lewis	Eskom Koeberg	P
Pillay, Greg	City of Cape Town – Disaster Risk Management	Apologies
Ramerafe, Mothusi	National Nuclear Regulator	P
Sauermann, Johan	Eskom Koeberg	P
Sauermann, Lorette	Eskom Koeberg	P
Stephanus, Aminah	Eskom Koeberg	P
Silinga, Nangamso	National Nuclear Regulator	P
Stwayi, Mandisi		
Thomas, Mandy	City of Cape Town	P
Tshepe, Tshakane	Department of Mineral Resources and Energy	A
Tsebe, Andretta	Department of Mineral Resources and Energy	P
Van Rensburg, Stephen	City of Cape Town	Apologies
Valaitham, Mahesh	Eskom Koeberg	Apologies

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 the attendees to the June 2021 virtual Koeberg Public Safety Information.

2. Safety briefing

Mr Phidza highlighted the fact that everyone should ensure that they are safe where they are. He also reminded everyone to comply with COVID-19 protocols.

3. MS Teams Protocol and PSIF Code of Conduct

The MS Teams protocol and PSIF Code of Conduct was shared with the members on screen before the meeting started by the Chairperson. The Chairperson refreshed the members as to how to raise their hands on MS Teams and add their comments or questions as it is a virtual platform and a first for many.

4. Apologies

The following apologies were tendered

- Mr Greg Pillay
- Ms Charlotte Powell
- Cllr Nora Grose
- Mr Mahesh Valaitham
- Mr Peter Browne
- Mr Stephen van Rensburg
- Ms Jenny McKinnel
- Mr and Mrs Mayhew
- Mrs Marga Goss

5. Acceptance of the Minutes of the previous meeting (November 2019)

The Minutes of the previous meeting were approved by Mrs La Grange and seconded by Mr Naylor and Mr Harrison.

6. Matters arising from the previous meeting

Mr Naylor enquired about the status of the seismic hazard analysis study that was mentioned by Ms Bravance Mashele in the last (March 2021) PSIF meeting, mentioned on page 11 of the March PSIF Minutes - Ms Mashele confirmed that the seismic hazard analysis study for the Koeberg site is in progress, it is being performed under contract by the Council for Geoscience, based on the latest methodology and is it planned to be complete by June 2022.

Comment by Mr Naylor

Mr Naylor felt that June 2022 is a very open-ended date and requested whether the issue can be tracked on the Minutes so that the PSIF members can receive updates as to the progress up to the date the study has been completed.

Comment by Mr Featherstone

Mr Featherstone agreed that we could keep members updated and track the LTO progress as a standard item in the PSIF meetings.

7. Meeting Topics**7.1 Koeberg Nuclear Power Station quarterly feedback:**

Mr Riedewaan Bakardien - Koeberg Chief Nuclear Officer (CNO) Provided the KNPS Quarterly Feedback.

Question by Mr Naylor

Mr Naylor enquired why, according to the presentation, only a section of the beach is cleaned and controlled by Koeberg Power Station Nature Reserve and why not the entire shoreline.

Response by Mr Bakardien

Mr Bakardien responded that Koeberg controls the entire Nature Reserve. He explained that the part of the Koeberg Nature Reserve that he discussed in the presentation was just to illustrate that in a particular area there is a focused study by UCT. He reiterated that all the beaches are monitored and cleaned regularly.

Question by Mr Naylor

Mr Naylor enquired whether Koeberg, being a National Key Point, cannot fast track the vaccination program/roll-out for their staff.

Response by Mr Bakardien

Mr Bakardien explained that the Koeberg Vaccination Programme has to remain aligned and in compliance with the government pandemic programme. At the time of the meeting he confirmed the focus was on the senior and adult population of over 60 years old. He said at some point priority will be given to essential services staff, which will include Eskom essential workers which will form part of the national vaccination roll-out.

Question by Mr Bennet

Mr Bennet indicated that his question was three-fold. The first question related to the ideal timeline that was set for the outage, especially considering that the outage started earlier than anticipated. He then wanted to know how workforce management was planned given the unpredictable timeline and how they ensured that they had the correct resources to complete the outage, during the COVID-19 pandemic. He also enquired about the statement made by the presenter that there were equipment issues that added to the outage delay. He wanted to know whether the servicing of the equipment was in line with OEM guidelines, and if this was a priority to the power station as this could impact them meeting their outage timelines and KPIs.

Response by Mr Bakardien

1. Mr Bakardien explained that the outage was planned for 110 days and unfortunately ran over quite significantly, ending up at approximately 160 days.
2. He explained that the station was not able to capitalise on the early start of the outage as overseas contractors were required to perform some of the initial activities. Where possible, arrangements for the resources and equipment to arrive earlier were made, but in some cases given the difficulty in making travel arrangements this was unfortunately not possible.
3. As a result of the early start, it took a while to get the workforce management issues resolved, as staff had to be brought back from leave and shift rosters had to be established. But once the initial hurdle of the early start was overcome, the routine outage resource scheduling was applied, using shift rosters and outage plans to ensure the appropriate staff availability. These schedules have to balance the outage requirements and the ministerial determination that prescribes the hours that staff are allowed to work.
4. He assured the members that the maintenance basis for all the equipment related to safety and availability is derived from the OEM, and the implementation of the Maintenance Programme is a license requirement.
5. He concluded by explaining that for every outage, Koeberg plans the activities to be completed based on the maintenance basis requirements. The Maintenance Programme does allow for activities to be carefully assessed by engineers to determine if the activity can be deferred in unforeseen circumstances. During this outage a few activities had to be deferred, due to spares not being available, but over 39 000 activities were completed – which is a huge scope of work. He further explained that Eskom and the country can see the benefit of the maintenance programme as the Koeberg Units have continued to maintain and improve their reliability between outages.

Question by Mr Iosiphakis

Mr Iosiphakis enquired about the outage on Unit 1 starting earlier and whether the early start could have been avoided and if it was imperative that they start the outage early.

Response by Mr Bakardien

Mr Bakardien explained that an assessment was done on 3 January 2021 in response to the increased leak rate on the Steam Generator and it was decided to conservatively shut down the unit to determine the cause of the increase. This required the plant to be shut down and to remove the fuel from the core to enable the necessary inspections of the steam generator to be performed. This intervention would have taken about 60 days to get the unit back into service and it only had fuel in the core for another one month's operation before it would have needed to be shut down for the refueling outage. It was therefore prudent to commence with the outage activities in parallel with the steam generator investigations, as it maximised the unit

availability and eliminated the need for a second unit shutdown and reactor unload.

Question by Mr Iosiphakis

Mr Iosiphakis enquired whether all three steam generators will be replaced in the upcoming outage on Unit 2.

Response by Mr Bakardien

Mr Bakardien acknowledged that all three steam generators (on Unit 2) are scheduled to be replaced in the next outage on Unit 2 planned for early 2022, followed by all three steam generators on Unit 1 during its outage scheduled for the end of 2022.

Comment by the Chairperson

The Chairperson thanked Mr Bakardien for availing his time to present to the members and expressed her condolences on the loss of Koeberg employees due to the COVID-19 pandemic.

Response by Mr Bakardien

He expressed his appreciation for the Chairperson's condolences and said he will convey the message back to the rest of the staff.

7.2 Feedback on the 2020 Regulatory Emergency Exercise at Koeberg
Mr Reuben Makgae from the National Nuclear Regulator provided feedback on the Koeberg NNR Exercise which was conducted in 2020.

Statement by Mr Harrison

Mr Harrison expressed concern on the lack of public involvement in the Regulatory Emergency Plan exercise and the lack of effective public awareness with regards to a nuclear emergency. His concern was if there should be an emergency and there is a requirement for the public to evacuate if the public will know what to do. He suggested that in 2022, the public awareness, with regards to educating the public as to what to do in an emergency, be increased, as well as stepping up the Calendar distribution process.

7.3 City of Cape Town Fire Services: Roles and Responsibilities
Mr Steve Abrahamse explained the roles and responsibilities of the City of Cape Town Fire Services within the Koeberg Emergency Plan.

There were no questions for Mr Abrahamse.

7.4 Communication - Mr Keith Featherstone
Mr Featherstone explained that his presentation is in response to a request from some of the members regarding recurring communication issues pertaining to the PSIF.

Comment by Mr Naylor

Mr Naylor acknowledged that many of the queries raised in previous meetings was around communication and that it was raised by him. He expressed his appreciation to Mr Featherstone for addressing the topic.

8. General**Comment by Mr Gino Moonsamy – National Nuclear Regulator (NNR)**

Mr Moonsamy shared an update on the progress of the Koeberg Public Safety Information Forum (PSIF) Deputy Chairperson appointment. He informed the members that Koeberg fulfills the role of the Secretariat for the PSIF and is responsible to host the PSIF, the PSIF being a legislative requirement of the NNR as stipulated in the NNR Act. He further explained that the Board of the National Nuclear Regulator (NNR) is responsible for appointing the Chairperson and Deputy Chairperson of the PSIF. He informed the members that the term of office of the current Deputy Chairperson, Ms Natasha Leaner, is soon coming to an end and that the NNR have embarked on the process of appointing a Deputy Chairperson and that they have received nominations for the position and that hopefully they will be announcing the new Deputy Chair of the Koeberg PSIF at the next PSIF meeting in September 2021.

Comment by the PSIF Chairperson

The Chairperson commended Ms Natasha Leaner (current Koeberg PSIF Deputy Chairperson) for the sterling job she has done as the Deputy Chairperson of the Koeberg Public Safety Information Forum (PSIF).

9. Proposed Agenda items for the next meeting

The following Agenda items were proposed for the upcoming meeting:

- Announcement of the newly appointed Koeberg PSIF Deputy Chairperson (NNR)
- Koeberg quarterly feedback
- Impact of COVID-19 on the animals in the Koeberg Nature Reserve (Jurina Le Roux)

10. Date of next meeting

The next PSIF meeting will be held on Thursday, 30 September 2021 and will be held on a virtual platform via MS Teams.

11. Closure

The Chairperson thanked everyone for their attendance, contributions, and their patience, amidst the various technological challenges and resulting delays experienced in the meeting. She also thanked the team behind the scene responsible for making the virtual PSIF possible. The meeting was adjourned at 20:54.