

## Koeberg Public Safety Information Forum (PSIF)

### Minutes of the meeting held on Thursday, 28 June 2018

**Venue:** Visitors Centre, Koeberg Nuclear Power Station

**Chairperson:** Ms Smokie La Grange

**Deputy Chairperson:** Natasha Leaner

Name and Surname	Organisation	Present
Anderson, Melville	Resident	A
Bennet, George	Resident	A
Beyl Trudy	Resident	P
Boulanger, Catherine	Resident	A
Bruce, Peter	Resident	A
Browne, Peter	Resident	A
Coertzen, MPC	Resident	A
Coertzen, PZN	Resident	A
Duval, Monique	Tygerburger	A
Fiet, LK	Resident	P
Fiet, TBH	Resident	P
Graaf, Michael	Resident	A
Isophakis, John	Resident	A
Ketcher, A	Resident	A
Kleynhans, Samie	Chairperson: Melkbosstrand Community Police Forum	A
Kruger, Charmaine	Resident	P
Kruger, Willem	Resident	P
La Grange, Duval	Resident	P
La Grange, Smokie	Melkbosstrand Ratepayers Association	P
Lingard, David	Resident	A
Mayhew, Robert	Resident	A
Mayhew, Sylvia	Resident	A
Maigrot, Cynthia	Resident	A
Maigrot, Harold	Resident	A
Marote, Michael	Atlantis Business Chambers	A
McKinnell, Jennifer	Resident	A
Moses, Bramwell	Resident	P
Motloane, Ntsoaki Beauty	Resident	P
Mpofu Ntabethemba Wellington	Resident	P
Nagan, Roy	Resident	A
Naylor, Paul Edward	Resident	P
Rodrigues, Neil	Resident	A
Scott, Peter	Resident	A
Slabbert, J A	Resident	A
Smith, Henry	Resident	P
Venter, Ursula	Greater Table View Action Forum	A
Williamson, Cordelia	Resident	A
Williamson, Raymond	Resident	A
Wucherpfennig, Lyn	Resident	A
Wucherpfennig, Roy	Resident	A

OFFICIALS		
Abrahams, Colin	City of Cape Town	P
Ata, Laurence	Eskom Koeberg Operating Unit	P
Ahrends, Joy	Eskom Koeberg Operating Unit	P
Bester, Peter	National Nuclear Regulator	P
Bruiners, Roger	National Nuclear Regulator	A
de Bruin, Annelise	City of Cape Town	A
Ditlhake, Kentse	Eskom Koeberg Operating Unit	P
Douglas, Mehl	National Nuclear Regulator	A
Featherstone, Keith	Eskom Koeberg Operating Unit	P
Franco, Johannes	City of Cape Town	A
Grose, Nora	Councillor – Ward 23	A
Hirachund, Antje	National Radiation Waste Disposal Institute (NRWDI)	P
Jeannes, Deon	Eskom Koeberg Operating Unit	P
Joshua, Debbie	Eskom Koeberg Operating Unit	P
Kunene, Ntaoleng	National Radiation Waste Disposal Institute (NRWDI)	P
Le Roux, Jurina	Eskom Koeberg Operating Unit	P
Leaner, Natasha	PSIF Deputy Chairperson	P
Leedo, B	City of Cape Town	P
Lenders, Ricky	City of Cape Town Disaster Risk Management	P
Maphoto, Katse	Department of Energy	A
Maree, Marc	Eskom Koeberg Operating Unit	A
Maree, Vanessa	National Nuclear Regulator	A
Matlala, Obakeng	Department of Energy	P
Moffat, Robert	Eskom Koeberg Operating Unit	P
Moonsamy, Gino	National Nuclear Regulator	A
Nciya, Phozisa	Eskom Koeberg Operating Unit	P
Ndomondo, Thembi	National Nuclear Regulator	A
Nicholls, Dave	Eskom Koeberg Operating Unit	A
Ntuli, Velaphi	Power Station Manager - Eskom Koeberg Operating Unit	A
Osman, Shireen	Eskom Koeberg Operating Unit	A
Pete, Ashy	Department of Energy	A
Phidza, Lewis	Manager: Stakeholder Management - Eskom Koeberg Operating Unit	P
Pillay, Greg	City of Cape Town – Disaster Risk Management (DRM)	A
Silinga, Nangamso	National Nuclear Regulator	A
Stwayi, Mandisi	Eskom Koeberg Operating Unit	A
Thauge, Phina	Eskom	P
Thomson, Gary	Eskom Koeberg Operating Unit	P
Tshepe, Tshakane	Department of Energy	P
Tyabashe, Loyiso	Eskom	A
Van Rensburg, Stephen	City of Cape Town	A
Valaitham Mahesh	Eskom Koeberg Operating Unit	A

Abbreviation/definition list			
Abbreviation	Description	Abbreviation	Description
<b>Accident</b>	An unintended event, including operating errors, equipment failures or other mishaps.	<b>Disaster Management</b>	A continuous and integrated multi-sectorial, multi-disciplinary process of planning and implementation of measures aimed at: <ul style="list-style-type: none"> <li>a) Preventing or reducing the risk of disaster</li> <li>b) Limiting the severity or consequences of disasters</li> <li>c) Emergency preparedness</li> <li>d) Responding rapidly and effectively to disaster; and</li> <li>e) Post-disaster recovery and rehabilitation</li> </ul>
<b>Boron</b>	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.	<b>ECC</b>	Emergency Control Centre
<b>CIA</b>	Central Intelligence Agency	<b>KNEP</b>	Koeberg Nuclear Emergency Plan
<b>Donax</b>	A genus of small, edible saltwater clams, marine bivalve mollusks. 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.		
<b>CISF</b>	Centralised Interim Storage Facility	<b>SPF</b>	Spent Fuel Pool
<b>CSB</b>	Cask Storage Building	<b>TEM</b>	Traffic Evacuation Model
<b>DOC</b>	Disaster Operations Centre	<b>Evacuation</b>	The rapid, temporary removal of people from the area to avoid or reduce short-term radiation exposure in the event of an emergency.
<b>ECC</b>	Emergency Control Centre	<b>UAE</b>	United Arab Emirates
<b>EIA</b>	Environmental Impact Assessment	<b>Plant</b>	Nuclear power station with associated components, machinery, equipment or devices
<b>Emergency Plan</b>	A document describing the organisational structures, its roles and responsibilities, concept of operation, means and principles for intervention during an emergency at Koeberg.	<b>UPZ</b>	Urgent Protective Action Zone
<b>EPZ</b>	Emergency Planning Zone	<b>EPSOC</b>	Emergency Planning Steering and Oversight Committee
<b>FCs</b>	Functional Coordinators	<b>CPA</b>	Consumer Protection Act
<b>IPP</b>	Independent Power Producer	<b>KEP</b>	Koeberg Emergency Procedure
<b>IPP</b>	Independent Power Producer	<b>mSv (millisievert)</b>	The millisievert (mSv) is a measure of the absorption of ionising radiation by the human body.

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

*The City of Cape Town, Department of Health, conducted a survey focused on the public's opinion on the pre-distribution of potassium iodate tablets to the PSIF members, before the meeting commenced.*

**1. Welcome**

The PSIF Chairperson, Ms Smokie La Grange, welcomed all the members to the PSIF Meeting.

**2. Safety briefing**

Ms Fifi Meyer, the Manager of the Koeberg Visitors Centre, did the safety briefing of the venue, highlighting the safety protocols, as well as the emergency alarms and what they mean. She also emphasised that everyone in attendance should ensure that they had signed the attendance register which also serves as an accountability register in case of an emergency.

**3. Apologies**

*The following apologies were tendered*

Mr Velaphi Ntuli

Mr Loyiso Tyabashe

Cllr Nora Grose

Mr Neil Rodrigues

Mr Roy Nagan

Mr Peter Browne

Mr Greg Pillay

Mr Franco Johannes

Mr Stephen Van Rensburg

Ms Kim Kline

Ms Shireen Osman

Mr Riedewaan Bakardien

Mr Mahesh Valaitham

Mr and Mrs Mayhew

**4. Acceptance of the Minutes of the previous meeting**

The Minutes were proposed by Ms Judy Beyel, and accepted by Mr Naylor.

**5. Matters arising from the previous meeting**

There were no matters arising from the previous Minutes. Mr Nick Lee forwarded the following comments:

- Refer to Mr Stwayi's response on page 10: *450 tons per day should be changed to 450 kilolitres.*
- CSB – *Cask Storage Building to be added to the abbreviations list.*
- Celcius to be added to Mr Nicholls comment on page 17 (third paragraph) – Mr Nicholls explained... *heat up the outfall water by about approximately 10 degrees (add celcius).*

### **6.1 Koeberg Nuclear Power Station quarterly feedback – Ms Bravance Mashele (Acting Koeberg Power Station Manager)**

*Ms Mashele informed the members that she was standing in for Mr Ntuli, Koeberg's Power Station Manager, at the time of the meeting as he was abroad.*

#### **Question by Mr Naylor**

Mr Naylor queried what is meant by "Outage 223."

#### **Response by Ms Mashele**

Ms Mashele explained that it refers to the 23<sup>rd</sup> outage on Unit 2.

#### **Question by Mr Kruger**

Mr Kruger asked whether there were any safety risks as a result of the Labour unrest/action at Koeberg specifically considering that Koeberg is a nuclear power station.

#### **Response by Ms Mashele**

Ms Mashele responded that the strike was conducted in a systematic and orderly way as their Labour Unions understand their business, and therefore there was no impact on Koeberg's safety.

#### **Question by Mr Kruger**

Mr Kruger enquired whether Koeberg has any contingency plans in place in case it could have an impact the nuclear business.

#### **Response by Ms Mashele**

Ms Mashele explained that due to the nature of the nuclear business, a contingency plan is in place which relates to mitigating any risks.

#### **Question by Ms La Grange**

Ms La Grange queried what is meant by a scaffolding ledger, as one of the LTIs presented referred to an incident involving a scaffolding ledger.

#### **Response by Ms Mashele**

Mr Mashele informed Ms La Grange that it is a scaffolding pipe.

### **6.2 Koeberg Environmental Monitoring Programme (focusing on marine life) – Dr Tammy Robinson (University of Stellenbosch)**

#### **Question by Mr Naylor**

According to Mr Naylor what might skew the data is that Ou Skip, which Dr Tammy mentioned, had been open to the public in the past. Subsequently the fence was moved a kilometer down, so currently there is no public encroachment on the area, collecting white mussel. This could mean that the white mussel population is increasing on the one side where the public don't have access to the beach, and declining on the side where the public has access to the beach.

**Response by Dr Robinson**

Dr Tammy responded that after 2014 there were a few years where white mussels were not prevalent in a particular season. The next season they were back, and alternating between high and low growth although it was more on the low side. According to the Sandy Shores experts, this is apparently typical of donax along western upwelling coasts, which we have. She further explained that it is also prevalent in Chile, although a different donax species – the findings are that with the el nino weather changes, the donax are responding in a way that is not understood, and their numbers have dropped. She explained that the main problem is people poaching donax.

**Question by a member**

There was a question from a member of the Forum as to whether there is a control site 10km up or 10km down from Koeberg to see how the normal beach shoreline would have changed at the same time as Koeberg.

**Response by Dr Robinson**

According to Dr Tammy four sites were initially selected in the pre-operational phase with the idea to have a few sites that were likely to be impacted and a few sites that could act as control sites, and then to track those. This wasn't possible, which led to Ou Skip being chosen as it was most likely to be impacted due to the direction of the water movement.

**Question by Mr Naylor**

Mr Naylor asked whether the water is warmer at the Ou Skip site.

**Response by Mr Jeannes**

Mr Jeannes explained that the water will be warmer by approximately two to three degrees celcius depending on the weather pattern, wind direction, and wave action. Mr Jeannes indicated that he can make the website available for more information about temperature modeling that has been done.

**6.3 Impact of the drought on the fauna and flora – Ms Jurina Le Roux  
(Environmental Office - Koeberg Nature Reserve)****Question by Ms Kruger**

Ms Kruger queried whether the public is still encouraged to visit the nature reserve with the reserve taking strain due to the drought.

**Response by Ms Le Roux**

Ms Le Roux explained that the cyclists stick to gravel roads which don't impact the nature reserve. She also mentioned that it was established that the hikers and cyclists using the reserve don't litter. She explained that the hiking trails exist along fire breaks. What has been found, though, is that as a result of the drought, the eland are creating a new bush path which is confusing hikers, resulting in the need for signage to be constantly changed.

**Question by a member**

A member of the Forum enquired whether the animal population is growing, or whether the growth in population is limited.

**Response by Ms Le Roux**

Ms Le Roux explained that the population is controlled. She further explained that there is an increase in eland population, and that the springbok population is declining. By exchanging eland for springbok the animal population has remained stable.

**Question by Ms La Grange**

Ms La Grange asked how many springbok and eland are in the Koeberg Nature Reserve.

**Response by Ms Le Roux**

Ms Le Roux responded that the nature reserve is home to 52 springbok and 89 eland.

**7. General****Question by Mr Fiet**

Mr Fiet requested an update on the New Build.

**Response by Mr Featherstone**

Mr Featherstone explained that the Environmental Impact Assessment (EIA) process was completed, and the Minister of Environmental Affairs recommended Koeberg as the preferred site for new nuclear build. Subsequently, appeals have been lodged against the Minister's decision which is currently being dealt with. Once the process has been finalised Eskom will be in a better position to provide an update. He further explained that according to the revised Integrated Resource Plan (IRP), Eskom has no authorisation to build any new nuclear power stations. There is no Section 34 determination from NERSA to enable to start the active process of procuring and building a power station. Eskom still has the responsibility to maintain its nuclear sites which are potential nuclear build sites, and that is the reason for the Environmental Impact Assessments (EIAs) continuing.

**Question by Mr Naylor**

Mr Naylor asked what the second preferred new build site is.

**Response by Mr Featherstone**

Mr Featherstone responded that three potential nuclear sites owned by Eskom were selected, namely Thyspunt (situated in Jeffreys Bay/Cape St Francis), Bantamsklip (close to Gansbaai), and Koeberg. All the selected sites were considered in the EIA, and based on the outcome of the EIA and according to Eskom; Thyspunt was the first preferred site, followed by Koeberg, and then Bantamsklip. The Minister's decision to select Koeberg as the preferred site was due to the fact that the supporting infrastructure to build, resides with Koeberg.



**Mr Smith**

Mr Smith enquired about the lifespan of Koeberg.

**Response by Mr Featherstone**

Mr Featherstone explained that the Department of Energy's assumption is that Koeberg will operate for 60 years as its lifespan, as per the Integrated Resources Plan (IRP) for the country. It is therefore important for Koeberg to demonstrate to the National Nuclear Regulator (NNR) that the station can operate safely for 60 years and even longer as some power stations can continue operating safely for up to 80 years.

**Question by Mr Smith**

Mr Smith enquired about Eskom's plan to manage the loss of core skills from Koeberg to the United Arab Emirates (UAE).

**Response by Mr Phidza**

Mr Phidza explained that the topic has been covered at three PSIF meetings. He suggested that there be an update in the September PSIF meeting.

**8. Date of next meeting**

The next PSIF meeting will take place at the Koeberg Visitors Centre on Thursday, 27 September 2018.

**9. Proposed Agenda topics for the next meeting**

- Update on the Spent Fuel Cask Project
- Update on the skills retention and pipelining
- Update on next New Build site

**10. Closure**

The Chairperson thanked all the members for attending the PSIF meeting. The meeting was adjourned at 20:15.