

## Koeberg Public Safety Information Forum (PSIF)

### Minutes of the meeting held on Thursday, 29 September 2016

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

**Chairperson:** Mr Sydney Stuurman

**Deputy Chairperson:** Natasha Leaner

Name and Surname	Organisation	Present
Alhadeff, Leon	Resident	A
Arbuckle, Graham	Resident	A
Anderson, Melville	Resident	A
Beyl, Trudy	Resident	A
Boulanger, Catherine	Resident	A
Browne, Peter	Resident	A
Booyens, Emmarenthia	Resident	P
Clark, John	Resident	P
Cupido, Dimitri	Resident	P
Desjardins, Peter	Resident	A
Duval, Monique	Tygerburger	P
Fiet, Jonnie	Resident	P
Graaf, Michael	Resident	A
Grose, Nora	Councillor – Ward 23	P
La Grange, Smokie	Melkbosstrand Ratepayers Association	P
La Grange, Duval	Resident	A
Leaner, Natasha	PSIF Deputy Chairperson	P
Esau, Phillip	Resident	A
Madima, Tenda	Resident	P
Mayhew, Robert	Resident	A
Mayhew, Sylvia	Resident	A
Maigrot, H (Mr)	Resident	A
Maigrot (Mrs)	Resident	A
McKinnell, Jenniffer	Resident	P
Nagan, Roy	Resident	P
Rodrigues, Neil	Resident	P
Saayman, Desmond	Resident	P
Scott, Peter	Resident	A
Shange, Sbu	Resident	P
Shange, Mandisa	Resident	P
Shange, Wandile	Resident	P
Stuurman, Sydney	KPSIF Chairperson	A
Van Niekerk, Romerio	Resident	P
Wilson, Tug	Resident	A
Williamson, Cordelia	Resident	A
Williamson, Raymond	Resident	A
OFFICIALS		
Bakardien, Riedewaan	General Manager Nuclear Engineering – Eskom Koeberg Operating Unit	P
Bruiners, Roger	National Nuclear Regulator	A
De Wet, Joy	Assistant Communications Officer - Eskom Koeberg Operating Unit	P
Dyabaza, Jongi	Senior Advisor Stakeholder Management- Eskom Koeberg Operating Unit	A
Engel, Kevin	Plant Manager - Eskom Koeberg Operating Unit	A
Franco, Johannes	Disaster Risk Management Centre	A
Jeannes, Deon	Environmental Manager – Eskom Koeberg Operating Unit	P
Joshua, Debbie	Senior Advisor Stakeholder Management: Eskom Koeberg Operating Unit	P

Mehl, Douglas	National Nuclear Regulator	P
Nicholls, Dave	Chief Nuclear Officer - Eskom Koeberg Operating Unit	A
Phidza, Lewis	Manager: Stakeholder Management - Eskom Koeberg Operating Unit	P
Pienaar, Shaun	Communication Officer - Stakeholder Management, Eskom Koeberg Operating Unit	P
Pillay, Greg	City of Cape Town	A
Sataar, Haaroen	Manager; Nuclear Project Management - Eskom Koeberg Operating Unit	A
Silinga, Nangamso	National Nuclear Regulator	A
Steyn, Elmien	City of Cape Town	P
Thauge, Phina	National Radiological Waste Disposal Institute	A
Van Rensburg, Stephen	City of Cape Town	P

<b>Abbreviation/definition list</b>			
<b>Abbreviation</b>	<b>Description</b>	<b>Abbreviation</b>	<b>Description</b>
<b>KNPS</b>	Koeberg Nuclear Power Station	<b>CoCT</b>	City of Cape Town
<b>KOU</b>	Koeberg Operating Unit	<b>IAEA</b>	International Atomic Energy Agency
<b>NNR</b>	National Nuclear Regulator	<b>DOC</b>	Disaster Operations Centre
<b>KPSIF</b>	Koeberg Public Safety Information Forum	<b>SABC</b>	South African Broadcasting Corporation
<b>ISO</b>	International Standards Organisation	<b>mSv (millisievert)</b>	The millisievert (mSv) is a measure of the absorption of ionising radiation by the human body.
<b>PSM</b>	Power Station Manager	<b>EP</b>	Emergency Plan
<b>SAPS</b>	South African Police Service	<b>UPZ</b>	Urgent Protective Action Planning Zone
<b>MW</b>	Megawatts. A unit of measure - one megawatt is equal to one million watts.	<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>ECC</b>	Emergency Control 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>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>Plant</b>	Nuclear power station with associated components, machinery, equipment or devices
<b>PAZ</b>	Precautionary Action Zone	<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>LTI</b>	Lost Time Injury	<b>WANO</b>	World Association of Nuclear Operators
<b>NSRB</b>	Nuclear Safety Review Board	<b>Radiation</b>	Energy released in the form of particles or electromagnetic waves during the breakdown of radioactive atoms.
<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>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>EIA</b>	Environmental Impact Assessment	<b>UAE</b>	United Arab Emirates
<b>Release</b>	The controlled or accidental discharge of radioactive substances into the environment.	<b>EMP</b>	Environmental Management Plan
<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>FCs</b>	Functional Coordinators	<b>EPSOC</b>	Emergency Planning Steering and Oversight Committee
<b>TEM</b>	Traffic Evacuation Model	<b>SAMGs</b>	Severe Accident Management Guidelines
<b>EPZ</b>	Emergency Planning Zone	<b>UPZ</b>	Urgent Protective Action Zone
<b>SHEQ</b>	Safety Health Environment and Quality	<b>KCWIB</b>	Koeberg Cooling Water Intake Basin
<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>FME</b>	Foreign Material Exclusion

<b>NOSA</b>	National Occupational Safety Association	<b>NOSCAR</b>	The grading of NOSA for safety performance.
<b>UAG</b>	Unplanned Automatic Grid Separation	<b>NERSA</b>	National Energy Regulator of South Africa
<b>SSA</b>	Sea Shore Act	<b>NSRB</b>	Nuclear Safety Review Board
		<b>Hazmat</b>	Hazardous material
<b>IPP</b>	Independent Power Producer	<b>KEP</b>	Koeberg Emergency Procedure
<b>NECSA</b>	South African Nuclear Energy Corporation SOC Limited	<b>CCGT</b>	Closed Cycle Gas Turbines
<b>WAC</b>	Waste Acceptance Criteria	<b>FA</b>	Fuel Assembly
<b>IPP</b>	Independent Power Producer	<b>CPA</b>	Consumer Protection Act
<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>OEM</b>	Original Equipment Manufacturer	<b>AECC</b>	Alternate Emergency Control Centre
<b>DOC</b>	Disaster Operations Centre	<b>TEM</b>	Traffic Evacuation Model
<b>CISF</b>	Centralised Interim Storage Facility	<b>SPF</b>	Spent Fuel Pool
<b>OCA</b>	Owner Controlled Area	<b>NRWDI</b>	National Radiation Waste Disposal Institute
<b>CIA</b>	Central Intelligence Agency		

**1. Opening and welcome**

The PSIF Deputy Chairperson, Ms Natasha Learner, welcomed everyone to the PSIF Meeting on behalf of the Chairperson, who reported that he would be delayed.

**2. Safety briefing**

Mr Phidza conducted the safety evacuation briefing, informing members about the safety protocol of the venue.

**3. Apologies**

The following apologies were tendered (29 September 2016)

- Mr Mahesh Valaitham
- Mr Kevin Engel
- Mr Greg Pillay
- Mr Gino Moonsamy
- Mr Peter Browne
- Mr Michael Graaf
- Mr and Mrs Maigrot
- Mr and Mrs Mayhew
- Mr Desmond Saayman
- Mr Mike Longden Thurgood
- Mr and Mrs Williamson
- Mr Melvyn Anderson
- Mr Roger Bruiners
- Mr Duval La Grange
- Ms Anne Lee

**4. Matters arising from the previous meeting minutes**

*The following corrections were noted.*

- Page 1: Mr John Taylor is no longer with the Neighbourhood Watch.
- Page 1: Mr and Mrs Mayhew are incorrectly captured as present
- Mr Roy Nagan must be added to the PSIF distribution list, as he is not receiving the PSIF minutes.
- Request to reinstate Councillor Nora Grose on the PSIF distribution list
- Mr Tug Wilson reiterated on behalf of Mr Mayhew, his displeasure with receiving the minutes late. Mr Wilson informed members that Mr Mayhew's concern was that it is a long-standing issue that has not been resolved to date. Mr Phidza informed the members that the PSIF Minutes are distributed within the prescribed time frame as per the PSIF Constitution. Furthermore the process of verification of the Minutes is a lengthy but necessary one.

- Mr Lee commented on the fact that the state of the old NNR offices has still not changed (refer to the General section of the June 2016 PSIF Minutes). He suggested that the NNR signage be removed. The NNR representative advised that maintenance is underway and reconstruction will take place from mid-2017. Mrs La Grange informed the PSIF members that the Melkbosstrand Neighbourhood Watch has placed the building in question on the derelict buildings list.

- 5. Acceptance of the Minutes of the previous meeting (29 September 2016)**  
The Minutes were accepted by Mrs Smokie La Grange and seconded by Mr Nick Lee.

**6. Koeberg quarterly feedback - Mr Riedewaan Bakardien (General Manager Nuclear Engineering)**

*Mr Bakardien set a challenge that the draft Minutes be made available to Mr Mayhew earlier than prescribed.*

**Summary**

- Outage 122 commenced on 19 September 2016, and is currently underway – fuel unload is completed.
- Unit 1 – has been at power for 474 days – a new record for this unit
- Unit 2 - has been online for more than 284 days
- New production record - both units have been online for more than 281 days simultaneously
- 12 487 activities scheduled for Outage 122
- One LTI and three minor injuries have been recorded

**Achievements**

- Koeberg breaker-to-breaker record: on 19 September 2016, Koeberg Power Station safely achieved 474 days continuous operation on its Unit 1 nuclear reactor; this record surpasses the previous record of 454 days continuous operation.
- Koeberg won the Eskom Winter Challenge for keeping the lights on.
- Successful Mandela Day in the Du Noon Community.

### ***Upcoming events***

- National Nuclear Regulator Emergency Plan Exercise - November 2016
- WANO Peer Review - January/February 2017
- Outage 221 - March/April 2017
- Media Day (TBC)

### **Comment by PSIF Member**

The member congratulated Koeberg for their outstanding performance.

### **Response by Mr Bakardien**

Mr Bakardien thanked the member and advised that he will relay the message to the Koeberg employees.

### **Question by PSIF Member**

The member asked whether Outage 221 would be a long or short duration outage.

### **Response by Mr Bakardien**

Mr Bakardien responded that it would also be a short refuelling outage.

### **Question by Mr Nagan**

Mr Nagan enquired how the global economic/financial situation affected Eskom.

### **Response by Mr Bakardien**

Mr Bakardien responded that despite its financial position, Koeberg maintains its maintenance schedule. Furthermore he advised that Eskom's financial status has also improved during the 2015/16 financial year.

### **Comment by Mr Scott**

The member commented that Koeberg tarnishes its image when it doesn't communicate effectively with the public i.e. site entry restrictions. He added that it leaves uninformed individuals to draw the wrong conclusions. He advised that we ensure that the security guards act as ambassadors and that they are trained to speak to the public correctly.

### **Response by Mr Bakardien**

Mr Bakardien responded that the communication will be improved. He added that at times operational reasons require immediate closure of the site with little time to communicate extensively.

**Comment by Councillor Grose**

Councillor Grose congratulated Koeberg on the good achievements and leadership. She also thanked Koeberg for their involvement in Dunoon. Councillor Grose asked whether the injuries referred to in the presentation were incurred in the last two months since the last PSIF meeting. Councillor Grose requested that communication be improved with the public especially the Melkbosstrand Ratepayers Association, the Melkbosstrand Neighbourhood Watch and on the Ward 23 Facebook page. The Councillor also asked whether the outage is communicated externally.

**Response by Mr Bakardien**

Mr Bakardien responded that the injuries occurred during the last three months. He informed members that Koeberg has a high reporting culture and that all injuries are taken seriously regardless of the nature and severity and all injuries are investigated. Mr Bakardien informed members that Koeberg do inform and educate local communities via the local media about upcoming outages and what an outage entails. He informed members that Koeberg recently hosted a Media Open Day where local media were briefed on the upcoming outage and the scope of work that would be covered. He acknowledged that communication can be improved, however, with the speed of social media it is quite difficult to stay ahead although Koeberg is working on a more effective external communication strategy.

**Response by Mr Phidza**

Mr Phidza added that Koeberg has already identified areas for improvement with regards to the use of social media.

**Question by PSIF Member**

The member asked where the fuel storage casks are stored at Koeberg and what happens to the old casks. He referred to the SRK public participation process which proposes that the casks be stored on the Koeberg site. He mentioned that according to his knowledge it used to be stored at Vaalputs. However the NNR closed it down due to high activity.

**Response by Mr Bakardien**

Mr Bakardien responded that the storage of fuel casks was presented in previous PSIF meetings and can be brought back as an Agenda topic based on the need or interest.

**Response by Mr Featherstone**

Mr Featherstone informed the member that the spent fuel (high level waste) is never taken off site, and that only the low level waste is transported to Vaalputs. He explained that older (used) fuel is currently onsite, but that storage capacity is decreasing. The SRK Consulting public participation notice is with regards to a proposal to increase capacity by purchasing additional fuel casks.



**Question by PSIF Member**

The member expressed concern about the developments which are getting closer to Koeberg and the proposed second nuclear power station on the Koeberg site will affect evacuation time, in case of a nuclear emergency.

**Response by Mr Bakardien**

Mr Bakardien responded that this topic has been tabled a number of times in the PSIF. He informed the member that developments around Koeberg are constrained by the Koeberg Emergency Plan. Before any development can take place, Koeberg's Emergency Plan will have to be considered, hence the necessary stringent authorisations and permissions are required prior to any construction taking place.

**Comment by Mr Scott**

Mr Scott suggested that Koeberg communicate more transparently and share more of a balanced picture of what's happening and what goes wrong. He suggested that Eskom communicate more upfront with our stakeholders as it can only benefit us and create greater understanding.

**Response by Mr Bakardien**

Mr Bakardien agreed with Mr Scott but also highlighted the fact that Koeberg communicates information through different levels of reporting.

**Response by Mr Featherstone**

Mr Featherstone invited suggestions as to how Koeberg can communicate better.

**Response by Mr Bakardien**

Mr Bakardien informed members that due to the nature of the Koeberg/nuclear business, everything is usually reported in the finest detail. He added that Koeberg has an events classification system for more serious events in terms of its severity. He agreed that Eskom can consider a more balanced reporting system.

**Response by Mr Scott**

Mr Scott advised that Koeberg use the incidents/reporting as an education and awareness tool to remove the cloud of mystery that surrounds nuclear.

**Comment by Mr Featherstone**

Mr Featherstone cautioned that balanced reporting requires context.

## **7. Nature Reserve prescribed burn – Mr Deon Jeannes (Nuclear Environmental Manager)**

### ***Summary – fire in the nature reserve 16 February 2016***

- In total 640ha of fynbos was burnt.
- Post fire invasive plant species removal is needed in all fire affected areas (contract support about R2m).
- 6.14km of fencing was damaged due to the galvanising being burnt off the fence. This will result in the fence rusting.
- 116 fence poles were burnt.
- The cabling on one of the borehole pumps on the waterline road melted and needs replacing.
- Damage to firefighting equipment and mobile equipment.
- Estimate 2.2km of gravel road has been badly damaged by the heavy articulated vehicles.

### ***Prescribed burn summary***

- Eskom, as the management authority of the Koeberg Nature Reserve (KNR) is in the process of applying for a permit to do a prescribed/ecological burn
- Area: 84ha section in the northern part of the reserve.
- City's bylaws require notification of neighbours (right to comment within seven days of notification of prescribed burn)
- Fire-fighting organisations (Koeberg, City of Cape Town and Fire Protection Association) will ensure that the burn is done professionally and according to the burn permit requirements.
- Planning to conduct the burn during October/November 2016 weather permitting.

### ***Reasons for prescribed burn***

- Alien invasive species management (in terms of Invasive Species Monitoring, Control and Eradication Plan) and to regenerate fynbos
- The ISCP for the Koeberg Nature Reserve has very specific deadlines for clearing invasive vegetation
- Most efficient and effective method to do this is to cut and fell or stack the vegetation and then to do a prescribed burn
- Leaving it in situ increases the fire risk during unfavourable weather conditions.
- Seven days before the prescribed burn – start monitoring weather forecast for optimum weather conditions

- Three days prior to the prescribed burn - if all weather criteria is met then the role players (fire fighters and monitors) will be informed and briefed on the plan.
- D-day - should optimum weather conditions don't prevail then the burn will be called off and rescheduled.
- **Note:** the Koeberg Nature Reserve will be closed during the prescribed burn and then for two more days thereafter.
- Eskom, as the assigned management authority, issued a Management Plan for public comment in February/March 2015.
- The MEC for Environmental Affairs and Development Planning (Department of Environmental Affairs and Development Planning approved the Koeberg Nature Reserve Management Plan on 9 September 2016.

**Question by PSIF Member**

The member enquired about who covers the cost of a fire.

**Response by Mr Jeannes**

Mr Jeannes responded that the owner of the land is liable, regardless of the cause of the fire.

**Question by Councillor Grose**

Councillor Grose asked whether the rehabilitation process is done in a manner that benefits the community i.e. job creation etc.

**Response by Mr Jeannes**

Mr Jeannes advised that the process followed to procure services for the rehabilitation process will be clarified and communicated at the next PSIF meeting.

**Response by Mr Phidza**

Mr Phidza responded that Eskom as a state own entity, is guided by the same employment creation, localisation and skills development guidelines, including the PFMA financial guidelines, to be prudent with its financial dealings. Eskom is a company guided and in compliance of the Company's Act of the Republic of South Africa. The fact that the presenter did not have the data requested, does not mean it was not done. If it's okay with the member, more data will be provided at a later stage.

**Request by Mrs La Grange**

Mrs La Grange requested Koeberg to take into consideration Guy Fawkes and not schedule the prescribed burn on 5 November 2016.

**Response by Mr Jeannes**

Mr Jeannes noted the request.

**Comment by Mrs La Grange**

Mrs La Grange thanked Mr Jeannes for a good presentation, and especially for the post-fire update.

**Question by Mr van Eeden**

Mr van Eeden enquired about the number of animals that were lost in the fire and how many are envisaged to be lost during the prescribed burn.

**Response by Mr Jeannes**

Mr Jeannes responded that the big game were able to escape but small animals (such as snakes, tortoises and rodents) which could not escape the fire were negatively impacted.

**Response by Mr Phidza**

Mr Phidza added that since the February burn, increase numbers of large game has been sighted in the reserve.

**8. General****Comment by Deputy Chairperson**

The Deputy Chairperson informed the members that the earlier comment of Mr and Mrs Mayhew being incorrectly marked as present is because they signed the register, but then left before the start of the meeting.

**Comment by Keith Featherstone**

Mr Featherstone advised that the article which was referred to about the fuel casks being rejected by Vaalputs was incorrect. It was not fuel, but rather one drum of low level waste, which was placed in the wrong size concrete drum, and was thus rejected at Vaalputs.

**Question by Mr van Eeden**

Mr van Eeden requested more information with regards to the drone which was reported in the media.

**Response by Mr Bakardien**

Mr Bakardien explained that the drone was found in the perimeter of the station and not the station itself. The owner lost the drone. The employee involved was placed under precautionary suspension while an investigation is underway. Numerous media reports have been published about it and. Investigations have been conducted by SAPS and the CIA, to evaluate whether any malicious act was committed. The drone posed no threat to the power station, however it is paramount that Koeberg adhere to strict security requirements and regulations as Koeberg is a no-fly zone and a national key point.

**Question by Mr Scott**

Mr Scott enquired about the rumours and reports about the serious loss of skills of Koeberg to Abu Dhabi. He expressed concern at the loss of especially licenced operators that take time to replace.

**Response by Mr Bakardien**

Mr Bakardien confirmed that Koeberg experienced a loss of skilled staff to the United Arab Emirates (UAE). He proposed that Eskom share the impact, and recovery of skills loss at the next PSIF meeting. He added the Koeberg still has an experienced average age.

**Question by PSIF Member**

The PSIF member enquired about the senior managers who were suspended.

**Response by Mr Bakardien**

Mr Bakardien explained that the senior managers were placed under precautionary suspension. This has since been resolved as he was one of the managers under suspension and he is back at work.

**9. Date of the next meeting**

The next KPSIF meeting is scheduled to take place at the Koeberg Visitors Centre from 19:00 on Thursday, 1 December 2016.

**10. Proposed agenda points for next meeting**

- Impact of skills loss on nuclear safety
- Quarterly station incidents
- Update on drone investigation

**11. Closure**

The PSIF meeting was adjourned at 20:23.