

Necsa Public Safety Information Forum (PSIF)
Minutes of the meeting held on Saturday, 11 March 2023

Venue : Necsa Visitor Centre & MS Teams **Time** : 10:00 to 11:38
Chairperson : Mr Mareme Mathosa **Deputy Chairperson** : Mr Joel Mphahla

REGISTRATION (P = PRESENT ATTENDING PHYSICALLY / V = PRESENT ATTENDING VIRTUALLY / A = APOLOGY)

NAME AND SURNAME	ORGANISATION	DATE – 2022/23			
		09/06/2022 Virtual	11/08/2022 Virtual	12/11/2022 Hybrid	11/03/2023 Hybrid
Basson, Davie	Necsa	■	A	A	V
Bentley, Rob	Resident	■			
Blackaller, Stanley	Resident			A	
Boyede, Qhamkile	Necsa	■	■	P	P
Brent, Steve	Resident	■			P
Chetty, Shaun	NTP			V	V
Chinake, Alick	Necsa			V	V
Chula, Kabelo	Necsa			V	
Crothall, Sue	Resident		A		
Ernst, Tony	Resident				V
Etienne Davis	Necsa			V	
De Bruyn, Charles	Necsa			P	P
Dlungwana, Thabani	Necsa		■		P
Du Preez, Frikkie	Necsa	■		V	V
Gamede, Lydia	Necsa			V	
Hausleitner, Heinrich	Resident		■		
Hawadi, Precious	Necsa	■	■	V	P
Jonker, Danie	Necsa			V	
Kekana, Mologadi	Necsa	■	■	P	P
Kgapane, Puni	Necsa		■		V
Komane, John	Necsa				P
Kruger, Johan	Resident			V	
Lekwe, Gilbert	Necsa		■	P	P
Lentsoane, NE	Resident				P
Lolo	Resident				V
Louw, Piet	NTP			V	
Malaka, Sammy	Necsa			P	V
Malatsi, Thabiso	Resident	■	■	V	
Mashabathakga, Clemmy	Resident	■	■	A	V
Mashele, Aaron	Necsa			P	
Mathosa, Mareme	Chairperson	■	■	V	V
Mmethi, Rakgoshi	Pelchem			V	P
Mogoboya, Ronnie	Pelchem			P	P
Mogotlhong, Leonard	Necsa		■	V	
Mokalantone, Lizzy	Necsa				P
Mondi, Monde	Necsa	■		V	P
Moonsamy, Gino	NNR		■	V	V
Morathi, Patrick	Resident		■	V	
Mosoetsa, Christine	Necsa	■	■	V	
Mphahla Joel	Deputy Chairperson	■	A	A	V
Mpiti, Lorraine	Resident				P
Mthembu, Botha	Necsa				P
Mthombeni, Ntombi	Necsa	■	■	V	V
Myoli, Ayanda	Necsa	■	■	A	P
Natha, Umesh	Pelchem	■	A	A	V

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Ngwenya, Jabu	Resident	■	■	P	P
Nienaber, Koos	Necsa			P	
Nkopane, MR	Resident				P
Osman, Asif	Necsa			P	V
Pather, Thiagan	NNR	■	■	A	V
Phahlamohlaka, Teuns	Resident		■	V	V
Pieters, Eddie	Resident				P
Pieters, K	Resident				P
Rampersadh, Pradish	Necsa		■	P	P
Raphotle, Blessed	Necsa		■		V
Ratabane, Kabelo	Necsa			V	
Rathebe, Bob	Madibeng		■	V	V
Rennie-Kroon, Amelia	Necsa	■	■	P	P
Rikhotso, Jackie	NW PG				P
Rikhotso, Nto	Necsa	■	A	P	A
Roon-Joubert, Maya	Resident	■	■	A	
Schutte, Pieter	Pelchem		■	V	
Selome, Jackson	NTP				P
Shabangu, Andries	Pelchem		■		
Sibanya, Thomas	Necsa			P	
Singh, Avinash	NTP	■	■	A	V
Smith, Rodney	Resident	■	■		
Stemmer, FH	Resident				P
Steynberg, Coert	Resident		■	A	
Tengimfene, Nickelwa	Necsa	■	■	V	P
TM	Resident				V
Tselane, Thabo	NTP		■		A
Tshivhombela, Lorraine	Necsa			V	
Tyabashe, Loyiso	Necsa GCEO	■	■	V	P
Van Heerden, Eurika	Necsa	■	■	V	P
Wentzel, Veronica	PSIF Secretariat	■	■	P	A
Wortmann, Gerhard	Necsa			V	

ABBREVIATION	DESCRIPTION
(G)CEO	(Group) Chief Executive Officer
D&D	Decommission and Decontamination
DMRE	Department of Mineral Resources and Energy
DSI	Department of Science and Innovation
ECC	Emergency Control Centre
EIA	Environmental Impact Assessment
IAEA	International Atomic Energy Agency
IRP	Integrated Resource Plan
JOC	Joint Operations Centre
JPC	Joint Planning Committee
Mo-99	Molybdenum-99
MoU	Memorandum of Understanding
MPR	Multi-Purpose Reactor
Necsa	South African Nuclear Energy Corporation SOC Limited
NERSA	National Energy Regulator of South Africa
NGO	Non-government Organisation
NLA	Necsa Learning Academy
NNR	National Nuclear Regulator
NPO	Non-profit Organisation

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NRWDI	National Radiation Waste Disposal Institute
PSIF	Public Safety Information Forum
SAFARI-1	South African Fundamental Atomic Research Installation
SAPS	South African Police Service
SDR	Special drawing rate
SHEQ	Safety Health Environment and Quality
ToR	Terms of Reference

TERM	CLARIFICATION / DEFINITION
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 e) 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.
Evacuation	The rapid, temporary removal of people from the area to avoid or reduce short-term radiation exposure in the event of an emergency.
mSv	The millisievert (mSv) is a measure of the absorption of ionising radiation by the human body.
Public Notification	Notification to the public of emergency and appropriate protective actions to be taken using the installed siren and loudspeaker system, local authorities, and Jacaranda FM and Motswedding.
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.

1. WELCOME AND OPENING

No.	Minute	Responsible
	Mr M Mathosa welcomed all present, and requested members to add additional issues.	M Mathosa

2. SAFETY MINUTE

No.	Minute	Responsible
	<p>Ms M Kekana did the safety minute highlighting current loadshedding issues. She reminded members to always switch off electrical appliances to protect against electrical surges; and if possible to invest in surge protection. If using generators, solar systems or any method of power generation it is important to get an electrician to do the installation and issue a certificate of compliance. This will assist to have the installation guaranteed and covered by your insurance.</p> <p>Keep candles away from flammable materials. Proper housekeeping is necessary to keep flammable things away from candles, but it would be better to invest in emergency lights or smart globes than to use open flames. Keeping a level of light around the house to keep uninvited guests, and lock doors before going to bed. Plan around loadshedding, and check up on batteries. Always have an emergency plan in case of unexpected things that could happen.</p> <p>Mr Mathosa added that it is wise to have your own list of emergency contact details to use even if there are no network coverage.</p>	M Kekana

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3. CONFIRMATION OF AGENDA

No.	Minute	Responsible
	No additions were made to the Agenda.	T Malatsi

4. MINUTES OF THE PREVIOUS MEETING

No.	Minute	Responsible
	<p>Under (1) Welcome and Opening, second paragraph to remove “i” after Mr J Mphahla, as “i” he.</p> <p>Mr Pather, in paragraph 7.1, fourth line correct spelling of Mr Pather’s name.</p> <p>Mr J Ngwenya moved for adoption of the minutes, and seconded.</p>	V Wentzel

5. MATTERS ARISING FROM PREVIOUS MEETING

No.	Minute	Responsible
5.1	<p><u>PSIF Constitution</u></p> <p>Ms V Wentzel distributed the final draft of the PSIF Constitution before the meeting. She requested that all comments are submitted by 21 March 2023. The final document will be adopted during the next PSIF meeting and prepared for signatures.</p>	

6. NECSA GROUP UPDATE & NECSA PUBLIC SAFETY FEEDBACK

(Presented: Mr L Tyabashe; Mr U Natha MD of Pelchem; Mr J Selome, GM of Production, NTP; Mr A Myoli; Ms Q Boyede)

No.	Minute	Responsible
6.1	<p><u>Question by Mr E Pieters:</u></p> <p>Mr Pieters, a concerned citizen from Brits, informed that he worked at the Necsa Fire Department in 1985. The water is released from the plants into the Crocodile River. The RPO’s conduct water tests, but nobody ever test sand in the Crocodile River and Hartbeespoort dam, as uranium is heavier than water, it is about the same as gold and lead. He enquired why nobody takes any mud tests, where mud samples can be placed on a piece of cloth and dried before testing. Mr Pieters informed that uranium has been running into the dam since 1985, he was not aware of this, but found the information on Google.</p> <p>Mr Pieters said three shifts take turns, working for 24 hours which is approximately 12 people per shift shower after every shift which also deposited with uranium sediments. Also, the RPO that did the monitoring died of cancer. There is a number of former Necsa employees die of cancer, he is not aware if there is any relation.</p> <p>Mr Pieters, former fireman was doing standby in Area 14 when Murray & Roberts were busy building it. He attended to fires in Area 14 where there were enriched uranium seals. It broke causing compressor failure and hydrogen was released throughout the building, and the firemen had no protective gear. He has however not heard of one fireman that died of cancer. Mr Pieters is 65 and also does not have cancer. But, according to the Necsa group a lot of its employees died of cancer.</p> <p>He is concerned about the amount of uranium the water they drink in Brits contains. If you look at the Snake and Animal Park there is a sewerage pump system, and within 50m of this they are withdrawing drinking water. The water goes through filters and a lot of chlorine is added, people do not know what they drink.</p> <p>How far is the uranium carried in the streams and rivers? Since he worked for Necsa he never heard of a mud test, always only water tests, the water tested at P2400. Necsa even tests neighbors’ borehole water for free for uranium, which is brought to P2400, saying it is safe for human consumption. Not once did he see anyone take sand samples from boreholes, or the dam, or close to the dam wall.</p>	

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No.	Minute	Responsible
6.1	<p><u>Question by Mr E Pieters (continued):</u></p> <p>If you visit Google to Pelindaba and type “how much uranium was let into the dam”, it says in the past there used to be two municipalities, Brits and Hartbeespoort Municipalities. Hartbeespoort Municipality had an agreement with Necsa to allow contaminated water to go into the dam, because Necsa paid them. He does not know if it true, but it was what he read on Google.</p> <p><u>Response 1:</u></p> <p>Ms L Tyabashe informed that in terms of operations Necsa no longer handles raw uranium as it was stopped in the 1990's. Necsa used to convert uranium, it is no longer done. Necsa used to enrich uranium, it is no longer done. Necsa used to produce fuel for Koeberg, but this was discontinued. The only upstream side is the people assembling target plates for SAFARI-1, which is contained as you look at it. He assured Mr Pieters that Necsa no longer handles raw uranium. Should it ever happen again, we need to make sure that there are contingencies.</p> <p>Mr Pieters is aware that raw uranium is no longer used, but it takes hundreds and thousands of years for uranium to become safe. It is still lying in the dam, and might still take 200 years to become safe, how much is lying in the mud inside the dam?</p> <p>Ms Q Boyede clarified responded that 1) On how Necsa does its sampling in terms of measuring at the Crocodile River and the dam. The river samples are done on a weekly basis, and the dam is tested on a monthly basis. Reports are done on a quarterly basis to the NNR, annually to Water & Sanitation, and monthly to Necsa EXCO. 2) Issue on injuries. The NNR Act talks about Necsa being a responsible citizen. If anyone at Necsa is injured it is attended and tracked by the Medical Station. This includes long term effects tracking of injuries. 3) There is a regulatory limit to exposure of people working in an area called the Purple Area which is 20 mSv per annum. 4) The matter around information on Google need further investigation.</p> <p>Dr E van Heerden, a Manager at Environmental Management Group, informed that sediment samples are done in the Crocodile River (up and downstream of Necsa releases) and Hartbeespoort Dam since the inception of monitoring on site. They also monitor drinking water in Kosmos and Hartbeespoort. Necsa is below the NNR acceptable release limit in the river. All analysis are done by the two Necsa laboratories on site, Radio-analysis and Pelindaba Analytical Labs. An external company is also doing monitoring on the Magambe Spruit and the Crocodile River. The sand is analysed and can be included in future presentations.</p> <p>Mr L Tyabashe requested for the next PSIF meeting to bring the entire environmental surveillance programme so that people can see what is actually being sampled, and what the results are that we get. Dr Van Heerden could summarise it for the members.</p> <p>Mr L Tyabashe informed on the issue around cancer that there are studies done, which shows no correlation around people working at nuclear facilities dying of cancer. Anyone can get cancer, and it is not related to any form of exposure.</p> <p>Mr Mathosa invited Mr Pieters to forward any other suggestions to the PSIF Secretariat to forward for further deliberations.</p>	

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6.2	<p>Questions by Mr H Stemmer:</p> <p>Mr Stemmer of Mothotlung close to Brits, commended Necsa as Mr A Myoli said the IAEA has confirmed that the SAFARI-1 reactor has a higher availability time than any other in the world. What is it that Necsa is doing better in the world that can give the same medicine to other institutions?</p> <p>Mr A Myoli also said there is a contingency in place around 2024 when the plan will be to shift the storage facility. If anything is likely to go wrong with containment what impact will this have to the facility and the community?</p> <p>Mr Stemmer commended Mr Myoli and Ms Boyede talking about 1 000 000 safety working hours as well as the safety of employees. It is appreciated, but what does Necsa do to take the same to the community that the community must know. Once the workers and Necsa are safe, it means the community is also safe. What does Necsa share with the community to celebrate that we are all safe. Looking at Russia and Ukraine, we are all-shivering, but also know that we are safe in South Africa.</p> <p>Response 2:</p> <p>Mr Myoli informed that the international community recognized that Necsa’s availability is one of the highest in the world. The reactor turns 58 years old this year, South Africa is amongst the highest nuclear medicine suppliers in the world. Necsa had many years of operating and executing at the highest level. All of the knowledge exist and remain in the people at Necsa, we also have systems and infrastructure to go with that, and mastered over 58 years.</p> <p>The SAFARI-1 operations and downtime regime link up with the production requirements for NTP is such that you can match the hours that we need for operation to production needs and standards. . The Thabana Pipestore is used for storage of dual underwater, meaning that water is used as a coolant and moderator to keep the fuel safe as opposed to dry storage. There is no negative impact on the environment. There is a NNR requirement that Necsa complies with.</p> <p>Mr Tyabashe informed that if there is not sufficient storage for waste, the plant would have to be shut down.</p> <p>Ms Boyede informed that as part of the Necsa strategy we have a safety first value. We are also monitoring staff behavior, there is also safety culture in terms of how we run the organisation. Mr Tyabashe suggested to share the Necsa safety programmes with the members so that they can practice it at home.</p> <p>Mr Mathosa congratulated Necsa in its efforts in holding up its world class standard in terms of what we do.</p>	
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7. NNR UPDATE (Mr T Pather)

No.	Minute	Responsible
7.1	<p><u>Onsite inspections</u></p> <p>The NNR conducted 14 inspections during this quarter against various facilities on site. The NNR found overall satisfactory conditions for compliance of operations. Areas for improvement were identified and communicated to Necsa, Corrective action plans on identified issues are being put in place.</p>	T Pather
7.2	<p><u>SAFARI-1</u></p> <p>An unplanned shutdown took place due problems with some of the instruments. It was satisfactory resolved and continued with normal operation. The NNR will continue to monitor the situation.</p>	

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No.	Minute	Responsible
7.3	<p>Thabana Pipestore</p> <p>The NNR is finalizing its review of the design documentation as there were concerns raised as shown in Mr Myoli's slides. The NNR sent comments to Necsa in the past few weeks, and is currently evaluating responses received.</p> <p>The NNR received an updated public information document from Necsa relating to the expansion. The NNR indicated previously that it would have a consultation process with the public relating to the Thabana Pipestore extension. As soon as the review on the design documentation and public information documentation is concluded and agreed, the public will be given an opportunity to give written comment before the NNR finalizes its approval for the extension.</p>	
7.4	<p>MPR project</p> <p>This is a high profile project. Necsa engaged actively with the NNR over the last year. NNR has not yet received a formal license application. However, if receive regulatory engagement will then take place.</p> <p>At present the NNR is taking a review of the proposed licensing strategy for the realization of the project, which will guide the project. The NNR will provide their comments to Necsa before the end of March.</p>	
7.5	<p>Environmental Surveillance</p> <p>The NNR is in favour of Necsa doing a presentation on the environmental surveillance, as it is quite extensive covering all aspects, including water, air sampling, various salt samples, sediment in the vicinity of the Necsa site. Fish and sample plants are also collected to verify that there is no active buildup of radioactivity.</p>	

8. GENERAL

No.	Minute	Responsible
8.1	No further comments were received from the public.	

9. DATE OF NEXT MEETING

No.	Minute	Responsible
	Saturday, 10 June 2023 at 10h00. Hybrid meeting.	T Dlungwana

10. CLOSURE

No.	Minute	Responsible
	Mr M Mathosa thanked all participants for the healthy attendance and participation during the meeting and wanted to encourage the public to send their questions and comments to the PSIF Secretariat to add as an item on the agenda to discuss. The meeting closed at 11h38.	M Mathosa

Chairperson: _____

Second: _____

Signature: _____

Signature: _____

Date: _____

Date: _____