



OPENING STATEMENT AT THE SARPA ANNUAL CONFERENCE

DELIVERED BY

DEPUTY DIRECTOR GENERAL, MR ZIZAMELE MBAMBO

SOUTHERN AFRICAN RADIATION PROTECTION ASSOCIATION

SAINT GEORGE HOTEL, PRETORIA

31 JULY AUGUST 2019

Programme Director,

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Mr Alan Carolissen, Chief Executive Officer of NRWDI

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Mr Marc Maree, Radiation Protection Corporate Specialist - Eskom

Executives from the Mining and Energy Industries

Officials from the Department

SARPA members

Ladies and Gentlemen

Good morning,

It is pleasing to see you gathered here, it's a sign of your commitment to the nuclear industry. Your expert advice pertaining to the area of radiation protection is very valuable. I must as well congratulate the leadership of SARPA for ensuring that this gathering takes place. Professionals need to constantly meet and share best practices.

Ionising radiation can be harmful to humans and the environment, hence it is important that activities involving radiation exposure be covered by measures that will protect individuals from being exposed to radiation.

The use of nuclear energy and ionising radiation continues to expand in industry, agriculture, medicine and many fields of research. There are many examples such as Irradiation to preserve foodstuffs, sterilization

techniques to eradicate disease carrying insects, industrial radiography to detect cracks and help prevent failures of engineered structures.

Acceptance by society of the risks associated with radiation is conditional on the perceived relationship between the risks and benefits gained from the use of radiation. It follows that the risks must be limited and adequate protection provided.

Recently, the International Atomic Energy Agency published safety guides dealing with Radiation Protection of the Public and the Environment, Regulatory control of radioactive discharges to the environment and the prospective radiological environmental impact assessment for facilities and activities.

With South Africa looking into the extending the life of Koeberg Power Station and looking at the prospects of developing new nuclear power stations into the future and replacing the SAFARI-1 reactor, these safety guides will help both the operators as well as the regulator to enhance methodologies used to advance standard of radiation and environmental protection. The Regulator and the Operator are currently preparing for the Long Term Operation for the Koeberg nuclear power plant. The Department support the Koeberg nuclear power plant life extension programme in order to ensure energy security. The Koeberg Nuclear Power plant has generated electricity for more than 30 years and has shown that nuclear plays an important role as part of the energy mix.

Effective national radiation protection infrastructures, including the existing and those under development, can benefit from these new safety guides that promote the establishment of optimal levels of protection.

Radon is a naturally occurring radioactive gas. It has no smell, colour or taste. South Africa has underground mines, the radon at mines still need radiation protection, of particular importance is the fact that our mines are deep so it's very crucial that we apply these radiation protection principles. One another factor is that we need to ensure that the ventilation at the mines are adequately so that the Radon gas can be removed from mine working areas. The mines should be complaint with the regulations of the Regulator and proper monitoring should be put in place.

Radon in dwellings is another area that we need to ensure that we protect the public. This is because some areas may have high Radon concentration that need intervention by the Regulator, particularly those areas that may have been built on areas that are radon prone.

In the amendments of National Nuclear Regulator Act, the establishment of the National Dose Register has been included. This shall include records of doses from occupational exposure. The international standard and practice for record keeping of internal and external national occupational radiation doses is through the utilization of a central dose registry. This will ensure proper national statistical analysis of dose distributions, dose management and reporting to international organizations. In South Africa authorisation holders are required to establish and maintain an organisational dose register of every occupationally exposed worker in compliance with regulatory standards. The establishment of National Dose Register will ensure that dose records are maintained centrally and independently as well as remaining retrievable in the long term.

Programme Director,

I am pleased to hear that SARPA encourages nuclear professionals to continuously develop their professions by participating in nuclear activities through studying, conducting research and publication of research papers both nationally and internationally. The energy sector similarly to other sectors is dominated by the ageing workforce. Proper succession planning and hand over is required from generation to another to maintain information. The Department will be interested to observe how you take the youth along and I strongly request the Leadership of the nuclear sector to support these interventions. I have been informed that during your Gala dinner there will be a Young Scientist Award, congratulation to young person who will win this prestige the award. I hope that you will represent South Africa well in the next IRPA conference in South Korea.

The Integrated Resource Plan (IRP) resource plan is in the process of being finalised, the plan will consider a diversified energy mix which includes all forms of energy technologies such as cleaner coal, nuclear, gas hydro, renewables and battery storage. As it has been stated nuclear will be implemented at a pace and scale the country can afford.

As we strive to ensure a sustainable and self-sufficient nuclear industry in line with Nuclear Policy, we will provide the necessary support to our entities such as Necsa to continue with the production of radioisotopes which are in need globally for cancer treatment. We will work towards promoting partnerships between entities within the Department such as Pelchem and Mintek, revitalise work on the state pharmaceutical company to secure supply of critical medication for our health system.

As mentioned earlier the SAFARI-1 research reactor will soon be reaching the end of its life and we are taking steps to replace it with a Multi-Purpose Reactor. This project seeks to build on our commercial, industrial and scientific research capability and further extend the peaceful uses of nuclear energy globally, as we have done with the current reactor. A Task Team has been established for the implementation of the Multipurpose Reactor Project.

The National Radioactive Waste Institute (NRWDI) which is mandated to manage radioactive waste on a national basis is working together with stakeholders to develop solutions to manage radioactive waste safely in the country. The work for the establishment of Centralised Interim Storage Facility project is underway and is expected to be operational in 2025 to ensure sustainable solution for radioactive waste.

Programme Director,

I would like to encourage the SARPA to work together with other industry associations such as Nuclear Industry Association of South Africa (NIASA), Women In Nuclear South Africa (WiNSA) and South African Young Nuclear Professionals (SAYNPS) to strengthen this sector. I know that SARPA has already demonstrated this by partnering with WiNSA DoE Chapter for the Mandela Day Event, you contributed to the success of the event.

All of us working in the nuclear field have an enormous task ahead of us. It is our duty to work hard and ensure transparency about the risk of radiation and address the concerns raised by the public. It is therefore imperative for all of us especially you as experts in this field, to reach out to the public and educate everyone about what nuclear is and its benefits.

Furthermore, the region is continuing to strengthen the peaceful applications of nuclear energy through the Pelindaba Treaty, that established the African Commission on Nuclear Energy (AFCONE) whose role includes the promotion of peaceful uses of nuclear energy. This is regarded as an African success story and is a reflection that as a region, we are able to work together to achieve sustainable development. Therefore I urge SARPA and other regional organisations to support this initiative to enhance the use of nuclear energy technologies in the region.

It is important that as we continue to commit to the peaceful uses of nuclear energy at a national and regional level, we should be reminded to effectively implement measures that will also achieve nuclear non-proliferation, which is equally important in ensuring the balance between regulating and the right to pursue nuclear energy for peaceful purposes.

In this regard, as we continue to make strides in the nuclear industry, the non –proliferation controls would require to be strengthened to ensure nuclear activities are performed within applicable controls.

The Department continues to issue authorisations for the usage of nuclear material and related equipment, which contribute towards economic development and to perform inspections and audits to ensure that we do not hinder trade, but that South Africa benefits from the regulated material without compromising the safety and security of the country, through the development of non-peaceful activities and explosive devices.

Lastly, Programme Director, I want to wish SARPA and its affiliates all the best for the rest of conference. I believe that your discussions will form part of the success of the nuclear industry worldwide. I hope these discussions will meet what you intend for them to achieve.

Thank You