National Nuclear Regulator

annual report

2022/23

Protecting people and the environment from risks associated with ionising radiation.

National Nuclear Regulator

This 2022/23 Annual Report of the National Nuclear Regulator (NNR) is presented to the Minister of Mineral Resources and Energy in accordance with section 7(1)(j) and section 15 (7) of the National Nuclear Regulator Act 1999 (Act No. 47 of 1999)(NNRA).

The report reflects the health and safety related to workers, the public and the environment associated with all sites regulated by the NNR, the activities of the NNR for the 2022/23 financial year and financial affairs of the NNR in accordance with section 55(1)(d) of the Public Finance Management Act 1999 (Act No. 1 of 1999) and regulation 28 of the Treasury Regulations (as amended).

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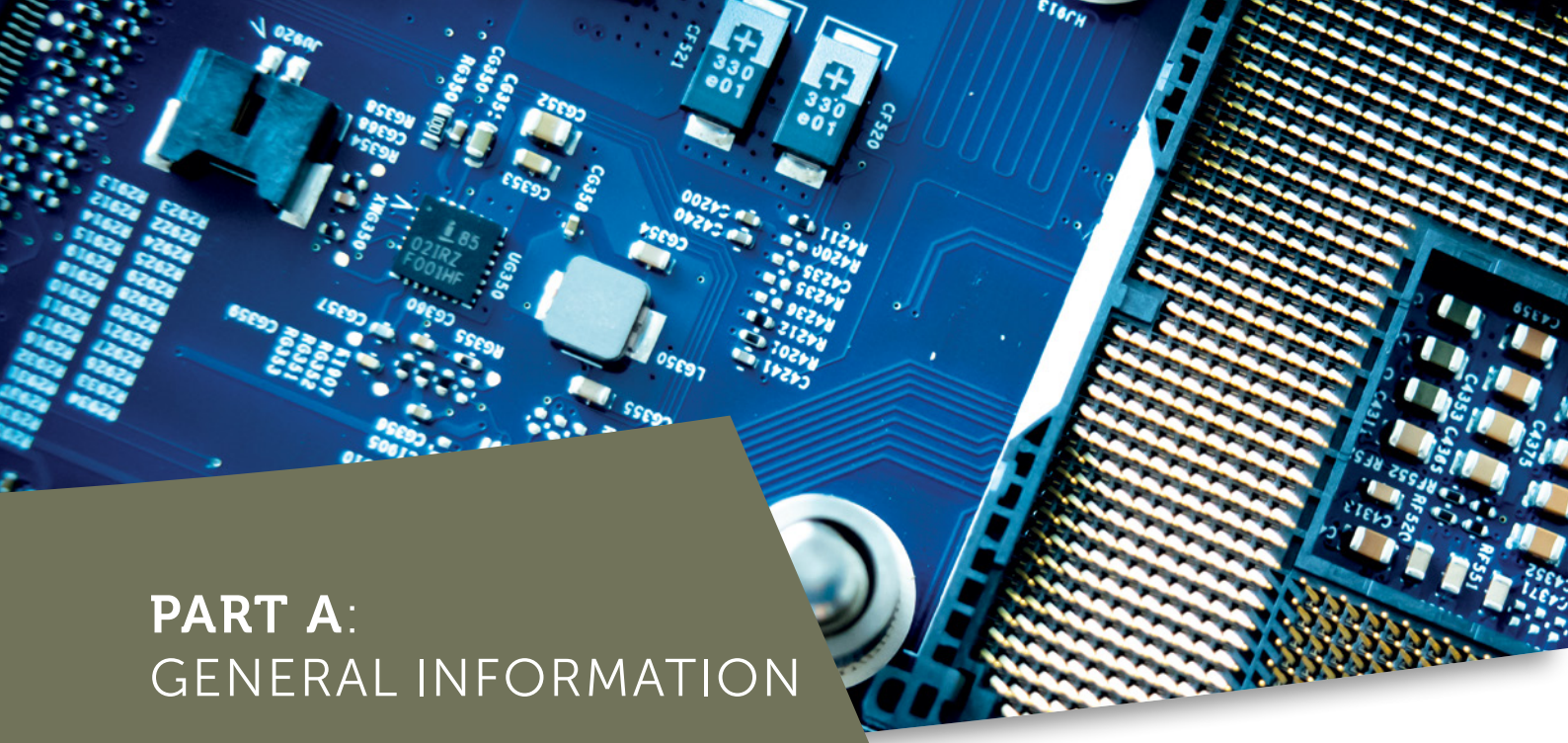


PART A:
GENERAL INFORMATION

1. Corporate Information

Registered name:	National Nuclear Regulator
Registration number:	Not Applicable
Registered office:	Eco Glades Office Park Eco Glades 2, Block G Witch Hazel Avenue Highveld Ext 75, Eco Park, Centurion 0157
Business address:	Eco Glades Office Park Eco Glades 2, Block G 420 Witch Hazel Avenue Eco Park, Centurion, Highveld Ext 75 0157
Postal address:	P.O. Box 7106 Centurion, Eco Park Highveld Ext 75 Pretoria
Executive Authority:	Minister of Mineral Resources and Energy
Bankers:	ABSA Bank
Auditors:	Auditor-General of South Africa (AGSA)
Acting Secretary:	Mr. FC Ndou

2. Abbreviations/Acronyms

AA	Accounting Authority
ARMCOM	Audit and Risk Management Committee
AADQ	Annual Authorised Discharge Quantity
AFRA	African Regional Cooperative Agreement for Research, Development and Training related to Nuclear Science and Technology
AFS	Annual Financial Statements
ACR	Authorisation Change Request
AGSA	Auditor-General of South Africa
ALARA	As Low As Reasonably Achievable
ASDP	Aerodynamic Separation Process
ASME	American Society of Mechanical Engineers
ASN	French Nuclear Safety Authority
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CNS	Convention on Nuclear Safety
COE	Certificate of Exemption
COM	Chamber of Mines
COR	Certificate of Registration
CPI	Consumer Price Index
CSS	Corporate Support Services
DIPR	Dedicated Isotope Production Reactor
DSP	Dosimetry Service Providers
ECC	Emergency Control Centre
EPD	Electronic Personal Dosimeter
DMRE	Department of Mineral Resources and Energy
EPSOC	Emergency Planning, Steering and Oversight Committee
FET	Further Education and Training
FNRBA	Forum for Nuclear Regulatory Bodies in Africa
GRAP	Generally Recognised Accounting Practice
HEU	Highly Enriched Uranium
HR	Human Resources
IAEA	International Atomic Energy Agency
IAEA CSS	International Atomic Energy Agency Commission on Safety Standards
ICRP	International Commission on Radiation Protection
ICT	Information Communication Technology
ILT	Initial Licence Training
INES	International Nuclear Event Scale
ISI	In-Service Inspection
KNPS	Koeberg Nuclear Power Station
KPI	Key Performance Indicator
LETF	Liquid-Effluent Treatment Facility
LEU	Low Enriched Uranium
LG	Licensing Guide
LLW	Low-Level Waste
LSA	Low Specific Activity
LTAM	Long-Term Asset Management
MDEP	Multinational Design Evaluation Programme
mSv	Millisievert
MW	Megawatt Electrical
NDR	National Dose Register
Necsa	South African Nuclear Energy Corporation
Nehawu	National Education, Health and Allied Workers' Union
NGO	Non-Governmental Organisation
NIL	Nuclear Installation Licence
NNR	National Nuclear Regulator

NNRA	National Nuclear Regulator Act
NORM	Naturally Occurring Radioactive Material
NPP	Nuclear Power Plant
NTWP	Nuclear Technology and Waste Projects
NUSSC	Nuclear Safety Standards Committee
NVL	Nuclear Vessel Licence
OTS	Operating Technical Specification
PFMA	Public Finance Management Act
PLEX	Plant Life Extension
PPC	Parliamentary Portfolio Committee
PSA	Public Safety Assessor
QMS	Quality Management System
RAIS	Regulatory Authority Information System
RASIMS	Radiation Safety Information Management System
RASSC	Radiation Safety Standards Committee
RITS	Regulatory Improvement and Technical Services
RPO	Radiation Protection Officer
RTMC	Road Traffic Management Corporation
RSR	Railway Safety Regulator
SACAA	South African Civil Aviation Authority
SALTO	Safety Assessment of Long-Term Operation
SAMSA	South African Maritime Safety Authority
SAPS	South African Police Service
SARS	South African Revenue Service
SAT	Self-Assessment Tool
SGR	Steam Generator Replacement
SHEQ	Safety, Health, Environment and Quality Management
SSRP	Safety Standards and Regulatory Practices
SQEP	Suitably Qualified and Experienced Person
TPU	Thermal Power Uprate
TRANSSC	Transport Safety Standards Committee
TSO	Technical Support Organisation
USNRC	United States Nuclear Regulatory Commission
WAC	Waste Acceptance Criteria
WASSC	Waste Safety Standards Committee
WiNSA	Women in Nuclear South Africa
WINSA-NNR	Women in Nuclear National Nuclear Regulator

3. **FOREWORD** BY CHAIRPERSON

I am honoured to present the sixth, and my last, Annual Report of the National Nuclear Regulator (NNR) as Chairperson of the Board, since the term of the current Board ends on 31 August 2023.

The NNR's 2022/23 Annual Performance Plan sets goals and targets for the third year of implementation of our 2020-2025 strategic plan. The organisation continued to pursue excellence in safety regulation, albeit in an environment characterised by various internal and external factors.

Some of the key focus areas for the organisation were;

- Preparatory work for Long-Term Operation (LTO) of the Koeberg Nuclear Power Station and readiness to regulate Small Modular Reactors (SMR).
- SANAS accreditation of the NNR laboratory.
- Ensuring financial stability amidst the current economic climate and government austerity measures.
- Enhancing our ICT capabilities to enable business support.

The Board continued to maintain effective oversight of the internal governance systems and processes, thus enabling the regulator to achieve an excellent overall performance score. In this foreword we summarise some of the key achievements against set objectives, and we highlight some of the key challenges we had to contend with.

Key amongst the activities of the previous year was the appointment of a new CEO of the organisation. We are delighted to have her at the helm of the NNR, and her long-term experience with the organisation and her redoubtable technical abilities can only be of long-term benefit to the Regulator.

In the 2022/23 financial year our key focus was on the continuous improvement of our regulatory operations and enhancement of measures to refine organisational agility and innovation. This was in pursuit of our overarching goal, which is to ensure effective nuclear safety regulation, culminating in the achievement of a performance score of 96,74%, against an overall set target of 85% during the reporting period.

In consultation with all the relevant stakeholders, the NNR compiled and submitted South Africa's 9th National Convention on Nuclear Safety Report to the International Atomic Energy Agency (IAEA).

> Internationally, the NNR used a variety of fora, committees, workshops and bilateral contacts to coordinate technical information and share best practice.

The report demonstrated that South Africa maintained a high level of nuclear safety through the effective implementation of a sound regulatory framework and active oversight. There were no nuclear accidents reported in South Africa during the reporting period. In terms of compliance assurance, the NNR conducted a total of 250 inspections at various authorised sites and facilities. In addition, a total of 1 343 technical safety reviews and assessments were conducted over the reporting period.

Communication with key stakeholders improved, and various social upliftment initiatives were successfully implemented. We also continued to ensure compliance will relevant internal policies and procedures, the laws and regulations of the Republic, and international conventions to which South Africa is a signatory. Since the beginning of the COVID-19 pandemic we have actively sought to make the best use of technology by introducing hybrid working arrangements.

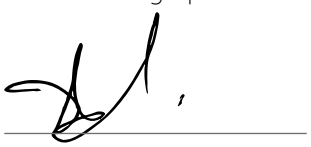
Furthermore, we hosted a multi-stakeholder observer programme during the Regulatory Nuclear Emergency Exercise at the Koeberg Nuclear Power Station. Representatives from international organisations, national stakeholders, civil society organisations, and the media, participated in the NNR stakeholder observer programme.

Internationally, the NNR used a variety of platforms, including committees, workshops, and bilateral cooperative agreements to coordinate technical information and share best practice. NNR technical experts participated in IAEA Forums, Global Networks, and international peer review missions.

In 2023/24, the organisation will take further steps to ensure that it has the right technology, tools, and people, to continue to be an effective regulator. This is considering the ongoing Steam Generator Replacement Project at Koeberg, and other related Long Term Operation activities. We also anticipate that a revised Integrated Resource Plan might be released in the current financial year, and this is likely to have a material impact on the operations of the Regulator.

In conclusion, I would like to thank all the employees and executive team of the NNR for the commitment and professionalism they have shown over the years. Their passion for nuclear safety is unparalleled, and their competence is held in deference by their international peers. I would like to thank the Board for its unwavering support during my tenure as the Chairperson, and its unquestionable and conscientious discharge of its fiduciary duties.

It has been a privilege to serve as the Chairperson of such an august and critically important South African institution, and I would like to thank the Minister of Mineral Resources and Energy for entrusting me with this honourable responsibility. As I hand over to the new Chairperson, I have no doubt the organisation will continue to maintain a culture of high performance.



Dr. Thapelo Motshudi
Chairperson, Board of Directors
National Nuclear Regulator

4. CHIEF EXECUTIVE OFFICER'S OVERVIEW

I am proud and privileged to have steered the NNR through a busy and challenging year where we continued to deliver high performance results in an uncertain operating environment. While priding ourselves on our clean audit achievement, the NNR remains focused on maintaining sound administrative processes in support of good governance.

The NNR's total revenue for the reporting period increased by 12% from R292 million collected in the 2021/22 fiscal year to R327 million. The approved budget for 2022/23 fiscal year was R331 million of which 84% was used to deliver regulatory and administrative support services.

The changes in the Preferential Procurement Regulations caused procurement delays which resulted in some projects being rolled over to 2023/24 financial year. The NNR did not award any unsolicited bids during the reporting period. We continually updated our Supply Chain Management policy and processes to incorporate legislative changes and adapt to the changing business operating environment. Supply Chain Management risks and compliance deficiencies were mitigated through the risk management committee.

The National Treasury approved the retention of surplus funds from the 2021/22 fiscal year. The surplus funds are ring fenced for the construction of the new Cape Town office. The project is at an advanced stage and is scheduled for completion in the 2023/24 fiscal year.

The were no material non-compliances reported by both internal and external Auditor's on the implementation of procurement rules and regulations. This confirmed adherence by NNR staff to the approved Supply Chain Management policies, processes, relevant prescripts and regulations.

The NNR experienced challenges in recruiting senior level staff in specialised engineering fields due to the limited number of persons with nuclear related experience. In response to this challenge the NNR continues to grow its own talent through its internship and trainee programmes.

In 2022/23 we regulated the nuclear industry efficiently and effectively to protect the public and environment from harm in accordance with our mandate as defined in the National Nuclear Regulator Act (Act No. 47 of 1999).

NNR inspectors experienced safety and security challenges in conducting compliance oversight activities in areas affected by illegal mining in the West Rand. Due to this volatile situation some activities were suspended. The NNR requested the South African Police Services to assist by accompanying NNR inspectors to the sites affected by illegal mining.

The South African National Accreditation System (SANAS) conducted an assessment at the NNR laboratory and recommended an accreditation for Gamma Spec: (Soil/Sediment and water) ISO/IEC 17025:2017. This recommendation is subject to the close out of identified non-conformances which will be addressed in the new fiscal year.

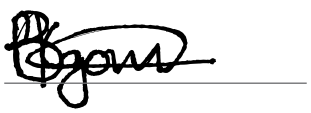
The NNR maintained a healthy balance sheet with total assets worth R270 million, the liquidity position is stable, and the organisation can meet its obligations in the next twelve months. The organisation is financially solvent, and it is expected to operate as a going concern for the near future.

The regulatory and administrative programmes for the 2023/24 fiscal year are adequately funded. The board approved a total budget of R366 million for the 2024/25 financial year and R1.1 billion is expected to be spent in the medium term towards regulating, prospecting and mining of uranium ore and any other ores containing nuclear properties and materials; and the nuclear fuel cycle in its entirety, focusing on all applications of nuclear technology.

The organisation is financially solvent, and it is expected to operate as a going concern for the near future.

In the medium term the NNR plans to conduct 123 inspections at the Koeberg Nuclear Power plant and 630 inspections at sites involving Naturally Occurring Radioactive Material.

I would like to extend my sincere appreciation to the Board Chairperson for the unwavering support received during this reporting period. Overall, this has been an excellent year for the NNR, and I offer my heartfelt thanks to our resolute staff who worked tirelessly to ensure we deliver on our priorities and meet stakeholder expectations.



Ms. Ditebogo Kgomo
Chief Executive Officer
National Nuclear Regulator

5. Statement of Responsibility and Confirmation of Accuracy for the Annual Report

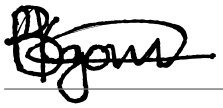
To the best of my knowledge and belief, I confirm the following:

All information and amounts disclosed in the annual report are consistent with the annual financial statements audited by the Auditor-General of South Africa. The annual report is complete, accurate and is free from any omissions.The annual report has been prepared in accordance with the guidelines on the annual report as issued by National Treasury. The Annual Financial Statements (Part G) have been prepared in accordance with the standards applicable to the public entity.

The Accounting Authority is responsible for the preparation of the annual financial statements and for the judgements made in this information. The Accounting Authority is responsible for establishing and implementing a system of internal control and has been designed to provide reasonable assurance as to the integrity and reliability of the performance information, the human resources information and the annual financial statements. The external Auditor's are engaged to express an independent opinion on the annual financial statements.

In our opinion, the annual report fairly reflects the operations, the performance information, the human resources information and the financial affairs of the public entity for the financial year ended 31 March 2023.

Yours faithfully



Ms. Ditebogo Kgomo
Chief Executive Officer
Date

Dr. Thapelo Motshudi
Chairperson of the Board
Date

6. Strategic Overview

6.1. Vision

To be recognised as a caring and trusted nuclear and radiation safety Regulator.

6.2. Mission

To provide and maintain an effective national regulatory framework through innovation in the protection of persons, property and the environment against radiation damage.

6.3. Values

Excellence: Delivering outstanding quality of work, efficiently, effectively and innovatively.

Integrity: Acting in a non-biased, fair, objective, consistent, honest, reliable, principled way.

Openness and Transparency: Openness and transparency in the regulatory decision-making process and the communication of regulatory decisions.

Safety and Security: Upholding a culture of safety and security within the organisation, with holders of nuclear authorisations and in our interactions with all other stakeholders.

Teamwork: Being a cohesive team that works collaboratively to realise common goals to deliver exceptional results.

Caring: Recognising and appreciating our stakeholders by valuing their inputs, showing empathy and creating a conducive and supportive environment.

7. Legislative and other Mandates

The NNR is listed as a national public entity in Schedule 3 Part A of the Public Finance Management Act (Act No. 1 of 1999, as amended).

7.1. Constitutional Mandate

The NNR derives its mandate from the Constitution of the Republic of South Africa of 1996 (Act No. 108 of 1996), which prioritises health, safety, security and the environment. The NNR's strategy seeks congruency with Section 24 of the Constitution, specifically Chapter 2, the Bill of Rights, which reads:

Everyone has the right:

a) to an environment that is not harmful to their health or wellbeing; and

b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that -

   i) prevent pollution and ecological degradation;

   ii) promote conservation; and

   iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

7.2. Legislative and Policy Mandate

The NNR's mandate is derived from section 3 of the NNRA The Act gives effect to the objects of the Regulator as stipulated in section 5.

The NNR also contributes to DMRE programme 6: Nuclear Energy Regulation and Management.. These programmes include the following:

- Nuclear safety and technology;
- Nuclear non-proliferation and radiation security; and
- Nuclear policy.

The following are some of the legislations that the NNR must comply with:

Table 1: Overview of relevant legislation regulating the NNR

Legislation	
Basic Conditions of Employment Act, No. 75 of 1997	Promotion of Administrative Justice Act, No. 3 of 2000
Broad Based Black Economic Empowerment Act, No. 53 of 2003	Protected Disclosures Act, No.26 of 2000
Compensation for Occupational	Protection of Equality and Prevention of Unfair Discrimination Act, No. 4 of 2000
Constitution of the Republic of South Africa, 1996	Protection of Information Act, No.84 of 1982
Electronic Communications and Transactions Act, No. 25 of 2002	Protection of Personal Information Act, No. 4 of 2013
Employment Equity Act, No. 55 of 1998	Promotion of Access to Information Act, No. 2 of 2000
Government Immovable Assets Act, No.19 of 2007	Public Finance Management Act, No. 1 of 1999
Income Tax Act, No. 58 of 1962	Regulation of Interception of Communications and Provision of Communications and Provision of Communication-related information Act, No. 70 of 2002
Intergovernmental Relations Framework Act, No.13 of 2005	Skills Development Act, No.97 of 1998
Labour Relations Act, No. 66 of 1995	Skills Development Levies Act, No.9 of 1999
National Archives and Record Service of South Africa Act, No. 43 of 1996	Tobacco Products Control Act, No. 83 of 1993
National Environmental Management - Waste Act, No.59 of 2008	Unemployment Insurance Act, No. 63 of 2001
Occupational Health and Safety Act, No. 85 of 1993	Unemployment Insurance Contributions Act, No.4 of 2002
Pension Funds Act, No. 24 of 1956	Use of Official Languages Act, No. 2 of 2012
Preferential Procurement Policy Framework Act, No. 5 of 2000	

8. Organisational Structure

Board of Directors

Ms. Ditebogo Kgomo
Chief Executive Officer
(Appointed acting CEO from 1 June 2022 and permanent CEO from 1 November 2022)

Executive Management reporting to the CEO

Mr. Orion Phillips
Executive: Nuclear Power Plants

Ms. Louisa Mpete
Executive: Regulatory Improvement and Technical Services

Mr. Thiagan Pather
Executive: Nuclear Technology and NORM
(Appointed acting Executive: NTN from 1 November 2022)

Ms. Anita Simon
Executive: Corporate Support Services

Mr. Robert Nemaungani
Chief Financial Officer
(Appointed acting CFO from 1 February 2023)

Managers in the office of the CEO

Ms. Phindile Masilo
Chief Audit Executive

Mr. Fulufhelo Ndou
Senior Manager: Legal, Risk and Compliance

Mr. Masete Letsoalo
Manager: Strategy and Organisational Performance
(Appointed:4 January 2023)

PART B: PERFORMANCE

PART B: PERFORMANCE INFORMATION

1. Auditor's Report: Pre-determined Objectives

The AGSA currently performs the necessary audit procedures on the performance information to provide reasonable assurance in the form of an audit conclusion. The audit conclusion on the performance against pre-determined objectives is included in the report to management, with material findings being reported under the Pre-determined Objectives heading in the Report on other legal and regulatory requirements section of the auditor's report. The Auditor's Report is included in the Annual Report in Part G: Annual Financial Statements.

2. Overview of Performance

2.1. Service Delivery Environment

The NNR was established as an independent juristic person and this authority is entrenched "de jure" in the NNR Act. In principle, this means that in its service delivery, the NNR must carry out its mandate free from pressures associated with political circumstances or economic conditions, or pressures from government departments, authorised persons or other organisations. Therefore, the NNR continues to subscribe to the exercise of regulatory independence in line with the requirements of the CNS and related international nuclear safety standards.

During the reporting period, there was some disturbances relating to conducting compliance activities in the West Rand area in Gauteng due to criminal activities (illegal mining and rape) around the area, especially at abandoned facilities and tailing dumps. This has increased the risk and physical security to NNR inspectors therefore some compliance activities had to be suspended.

The implementation of the Steam Generator Replacement at the Koeberg Nuclear Power Station meant focus and dedication was prioritised towards the project and therefore fewer submissions were received from Eskom, however the regulatory oversight activities were carried out as planned.

2.2. Organisational Environment

The organisation has once more reached one of its highest performance levels yet at 96,74% achievement against the overall set target of 85%.

NNR continued to implement the hybrid system for its employees working three days in the office and two days from home as part of COVID-19 management. Parallel to this hybrid system, the Board approved the pilot of the remote work framework where some officials worked from home full time. This has proven not to hamper service delivery or performance of the organisation in anyway as evidenced by the high level of performance in relation to the implementation of the APP. The implementation of the approved remote work framework will be undertaken in phases during 2023/24.

The NNR experienced significant changes during the reporting period, among which was the resignation of its CEO, CFO and the Manager for Strategy and Organisational Performance. To ensure continuity in the operations of the organisation, Ms. Ditebogo Kgomo was appointed as an acting CEO for a period of six months and subsequently appointed permanently in October 2022 after a formal recruitment process. Similarly, an acting CFO was appointed to oversee management of financial resources and to minimise the disruption of the year-end processes. The recruitment processes for the CFO position were completed by end of March 2023 and the new Chief Financial Officer assumed duty from the beginning of April 2023. The position of Manager for Strategy and Organisational Performance was also filled effective January 2023.

The NNR experienced downtime with regards to connectivity which was due to poor signal and connectivity of the appointed service provider. This impacted on the organisation's ability to function effectively in an environment where connectivity to the server is required to access documents and systems. A new service provider was appointed effective October 2022.

In September 2019, the Minister of Mineral Resources and Energy granted NNR's Centre for Nuclear Safety and Security (CNSS) approval to conduct a pilot project for rendering services related to CNSS programmes at the request of others and to charge fees using a baseline funding model. This would also inform revision of the baseline finding costing structure and the future sustainability of CNSS. However, the economic downturn due to the COVID-19 pandemic negatively impacted CNSS activities, which led to the extension of the pilot project period by an additional three years starting from the pronouncement of the end of COVID-19 restrictions (i.e., March 2022) up to March 2025. Consequently, the CNSS Sustainability Strategy 2022-24 was revised with timelines for the achievement of pilot project deliverables. This led to the non-achievement of the set APP target for 2022/23 and the pilot was revised for implementation in the next financial year up to March 2025.

2.3. Key Policy Developments and Legislative Changes

There were no changes or developments to key policies and legislation in the 2022/23 financial year.

2.4. Progress towards Achievement of Institutional Impacts and Outcomes

The South African National Accreditation System (SANAS) carried out the assessment for the laboratory during the reporting period and recommended accreditation for Gamma Spec: (Soil/Sediment and water) ISO/IEC 17025:2017 subject to close out of the 15-non-conformances identified, which will be addressed in the new financial year.

The NNR continued to implement regulatory programmes in a bid to ensure effective nuclear safety regulation by conducting compliance assurance activities (inspections) and undertaking reviews and assessments.

The following is a summary of inspections completed during the reporting period:

- A total of 29 inspections were conducted by the NPP programme. A further 10 additional inspections were conducted due to the Steam Generator Replacement Project at the Koeberg site, and two reactive inspections were conducted in response to Unit 2 turbine trip and in response to previous non-compliances identified during the 2022 emergency exercise.
- A total of 120 inspections were conducted under the NORM programme. An additional one inspection was conducted at COE-10 due to the potential handling of radioactive material.
- The NTWP programme completed 85 planned inspections. Additional three inspections were conducted at SAFARI-1 and the P2700 Complex (UCHEM) as a result of an uncontrolled detachment of the control rod actuator at position C5; a reported malfunction of the ventilation warning system at P2700 Complex (UCHEM) and a reactor scram Neutron Safety Channel (NSC).

Reviews and assessments undertaken during this financial year includes current and historical submissions. For the current submissions, the following sums up the work carried out:

- 328 reviews and assessments were completed for the NPP Programme (including NISL and SGR), with additional 42 reviews completed as per the planned target is an estimation based on number of pending tasks at the beginning of the quarter and the number of tasks received in previous quarter.
- 236 reviews and assessments were completed for the NORM Programme , with additional 104 reviews completed after reprioritizing to focus on urgent/critical submissions received.
- 243 reviews and assessments were completed for the NTWP Programme , with additional 10 reviews completed in response to Necsa's operational needs.

For the historical submissions, the NNR completed a total of 380 reviews and assessments, which is 357 for NTWP, 20 for NORM, and 3 for the NPP programmes respectively.

The NNR is leading the establishment of an Indoor Radon Regulatory Framework. The aim of the regulatory framework is to consider the most practical approach for South Africa to ensure that indoor radon be effectively controlled to reduce public exposure and should outline mechanisms for regulatory control of indoor radon exposures in South Africa. To develop the framework for indoor radon regulatory control, a stakeholder consultation plan was developed. The plan outlines the approach for engagements with several stakeholders and propels ongoing research on indoor radon exposures and subsequently the development and implementation of the indoor regulatory framework in South Africa.

The NNR received the safety case from Eskom in support of the application for Long-Term Operation (LTO) in July 2022 with reference K-28741-E. The NNR LTO review team completed the interim review report of the safety case and Eskom submitted their responses to the comments raised. The Work Order Package (WOP) for the TSO was finalised to review some of the assessment of the aseismic bearings from April 2023. The LTO safety evaluation progress report will be presented to the Board in the new financial year.

The CNSS costing structure was approved by the Minister of Mineral Resources and Energy in 2019 for implementation by the NNR. However, the COVID-19 pandemic impacted the CNSS activities, which led to the extension of the pilot project period by an additional three years starting from the pronouncement of the end of COVID-19 restrictions (i.e., March 2022) up to March 2025. Consequently, the CNSS Sustainability Strategy 2022-24 was revised with timelines for the achievement of pilot project deliverables.

The Specific Nuclear Safety Regulations provisions relevant to the SMR technologies were updated during the reporting period. The purpose of these regulations is to regulate the safety of nuclear facilities. The regulations apply to the siting, design, manufacture, construction, commissioning, testing, operation, maintenance, in-service inspection and decommissioning of a nuclear facility.

The proposed budget (R408,4 million) for the 2023/24 financial year, and the projected revenues (R349,0 million) were approved for implementation for the next financial period. The projected revenue is aligned to the proposed projected expenditure before the Cape Town Office Construction and Heating Ventilation and Air Conditioning projects expenditure. This would result in a deficit to be funded from the retained surplus funds.

In our pursuit to provide adequate and safe facilities for the site office, the NNR continued with the construction of the Cape Town site office. The site was handed over to the construction team in April 2022. Since then, there has been steady noticeable progress with the building programme completed at 23% as of 31 March 2023.

The NNR attended the 66th General Conference of the International Atomic Energy Agency in Vienna, Austria represented by the Chairperson of the Board and the CEO. The Chairperson and the CEO also participated in the plenary of the Forum of Nuclear Regulatory Bodies in Africa and the Senior Safety and Security Regulators meetings which focused on the regulation of new medical radiation examination technologies and the implementation of the IAEA Regulatory Infrastructure Development Project.

The NNR has worked tirelessly in pursuit to improving communication with key stakeholder groups, building ethical and healthy relations with stakeholders, and managing the NNR corporate image and reputation. The organisation participated in several corporate social responsibility activities during the financial year such as the Mandela Day activities by donating food parcels at the Emmanuel old age home in Madibeng Local Municipality, and donating reading books to the Nebo Primary School in Cape Town. Several public and learner awareness sessions were hosted over the financial year in interested and affected communities.

3. Institutional Programme Performance Information

3.1. Programme 1: Administration

The administration programme comprises of the Office of the CEO, CSS and Finance.

The Office of the CEO includes the Legal, Risk and Compliance, Internal Audit, Governance and Strategy and Organisational Performance departments.

3.1.1. Sub-programme: Legal, Risk and Compliance

Legal, Risk and Compliance is responsible for the provision of legal services, enterprise risk management and the monitoring of legislative compliance within the organisation.

Institutional outcomes that the Legal, Risk and Compliance sub-programme contributes towards according to the Annual Performance Plan

- Ensure proactive management of potential litigation.

3.1.2. Sub- programme 2: CSS

The sub-programme provides a wide range of cross-cutting services to enable the NNR to deliver on its organisational and regulatory objectives. The department under CSS includes the following:

Departments within the CSS:

- Human Capital Management.
- Knowledge and Information Management.
- Integrated Management System.
- Facilities Management.
- ICT.
- Security and Occupational Health and Safety.
- Communications and Stakeholder Relations Management.

Institutional outcomes that the CSS contributes towards according to the Annual Performance Plan

- Enhance stakeholder engagement (internal and external).
- Enhance ICT capabilities to enable business support.

3.1.3. Sub-programme 3: Office of the CFO

This sub-programme provides organisational support in financial management and administration.

Departments within the Office of the CFO sub-programme:

- Financial Planning and Management.
- Financial Reporting.
- Asset Management and Supply Chain Management (Procurement).

- Accounts Payable.
- Accounts Receivable and Cash Book Management.
- Payroll Management.

Institutional outcomes that within the Office of the CFO sub-programme contributes towards according to the Annual Performance Plan

- Adequate funding for execution of the NNR's mandate.
- Financial sustainability of the CNSS.
- Inclusion of previously disadvantaged individuals in economic activities.
- Provision of adequate and safe facilities for the site office.

3.2. Programme 2: Regulation of NPP

The NPP programme focuses on a holistic approach towards regulating safety and security for nuclear power plant technology. In terms of its core functions, it delivers on the Compliance Assurance and Enforcement activities, Reviews and Assessments and general oversight of the Koeberg Nuclear Power Station licence.

Additionally, the programme focuses on the issuing of authorisations for Nuclear Vessel Licences (NVL), licence change request, and management of NPP projects throughout the facility life cycle.

Institutional outcomes that the NPP Programme contributes towards according to the Annual Performance Plan

- Maintain the implementation of regulatory programmes to assure effective nuclear safety regulation.
- Provide an effective oversight of the Long Term Operations.

3.3. Programme 3: Regulation of NTN

The NTN programme provides a holistic approach towards regulating nuclear and radiation safety as well as nuclear and radiation security The programme focuses on the issuing of nuclear authorisations including Nuclear Installation Licenses, Nuclear Vessel Licenses, Certificates of Registration and Certificates of Exemption and amendments thereto as well as conducting reviews and assessments related to the safety of these facilities and activities.

Furthermore, it delivers on the Compliance Assurance and Enforcement activities, which include conducting inspections, investigations, surveillances and environmental monitoring and sampling related to Nuclear Technology facilities and activities, radioactive waste management at all identified Naturally Occurring Radiation Material facilities.

Departments within the NTN programme

- The regulation of nuclear technology and waste projects including various nuclear and radiation facilities on the Necsa Pelindaba site, Vaalputs National Radioactive Waste Disposal Facility.
- The regulation of facilities and activities involving Naturally Occurring Radioactive Material and public radiation exposure from previously contaminated NORM sites as well as Radon.

Institutional outcomes that the NTN Programme contributes towards according to the Annual Performance Plan

- Maintain the implementation of regulatory programmes to assure effective nuclear safety regulation.

3.4. Programme 4: RITS

The RITS programme provides cross-cutting nuclear safety services to all NNR's technical departments. A key component of this program is the regulatory research and development which is conducted on emerging issues regarding nuclear and radiation safety housed under the flagship of the Center for Nuclear Safety and Security (CNSS).

Departments within the RITS programme

- In-depth nuclear safety reviews and assessments for all the regulated facilities.
- Independent verification by computer codes.
- Emergency Preparedness and Response services.
- Laboratory Services.
- Development of Regulatory Standards and Nuclear Projects.
- Coordination of Nuclear Security and the Safety and Security Culture functions.

Institutional outcomes that the RITS Programme contributes towards according to the Annual Performance Plan

- Provide an independent radio- analytical verification capability and capacity.
- Ensure the readiness to regulate SMRs.
- Ensure the long-term sustainability of the CNSS.

3.5. Outcomes, Outputs, Output Indicators, Targets and Actual Achievements

In the 2022/23 FY, the NNR Annual Performance Plan contained 12 outcomes and 16 output indicators. The performance level for the organisation is calculated using a weighted score against the set target of 85%. The NNR achieved a performance level of 96,74% against the set target. The RAGG indicators are further used to indicate the performance summary as reflected below.

Red (non-achievement registered below 85% target)
Amber (85-99% achievement to target)
Green (100% achievement of target)
Grey (set aside/not applicable)

Table 2: Programme /Sub-programme: Legal, Risk and Compliance

Outcome	Output	Output Indicator	Audited Actual Performance 2020/2021	Audited Actual Performance 2021/22	Planned Annual Target 2022/23	**Actual Achievement 2022/23	Deviation from planned target to Actual Achievement 2022/23	Reasons for deviations
Ensure proactive management of potential litigation	Quarterly legislative compliance report	PM3: Level of legislative compliance	N/A	4 legislative compliance reports compiled	100% compliance to legislation	96,77% compliance to legislation	-3,23%	9 Acts and/ or regulations scored below 100% on compliance for the year.

Table 3: Programme /Sub-programme: CSS

Outcome	Output	Output Indicator	Audited Actual Performance 2020/2021	Audited Actual Performance 2021/22	Planned Annual Target 2022/23	**Actual Achievement 2022/23	Deviation from planned target to Actual Achievement 2022/23	Reasons for deviations
Enhance stakeholder engagements (internal and external)	Approved stakeholder engagement plans Quarterly reports	RM7: % implementation of the stakeholder engagement plan	N/A	100% implementation of the stakeholder relationship management plan	100% implementation of the stakeholder relationship management plan	100% of the stakeholder relationship management plan implemented	No deviation	N/A
Enhance ICT capabilities to enable business support	Approved plans ICT progress reports	PM1: % implementation of the ICT business support plan	100% implementation of all approved ICT strategic deliverables	100% of the ISO: 27001 plan implemented	100% implementation of the ICT business support plan	100% of the ICT business support plan implemented	No deviation	N/A

Table 4: Programme /Sub-programme: Finance

Outcome	Output	Output Indicator	Audited Actual Performance 2020/2021	Audited Actual Performance 2021/22	Planned Annual Target 2022/23	**Actual Achievement 2022/23	Deviation from planned target to Actual Achievement 2022/23	Reasons for deviations
Adequate funding for execution of NNR mandate	Board approved budget Quarterly financial reports	FM1: % funding of NNR planned activities	N/A	NNR planned activities 100% funded	100% funding of NNR planned activities	100% of NNR planned activities funded	No deviation	N/A
Financial sustainability of the CNSS	CNSS revenue report	FM2: % funding of CNSS planned activities	Approved fee structure	Approved funding model of the CNSS	100% funding of CNSS planned activities	0% funding of CNSS planned activities	100% deviation	The implementation of the CNSS funding model was in the planning phase with discussion for possible contracts underway. Most of the projects are focused on the development of training materials which will be used to render education and training services through CNSS and its partner institutions. The activities will be carried out and invoiced according to the approved model for implementation in the 2023/24 financial year.

Outcome	Output	Output Indicator	Audited Actual Performance 2020/2021	Audited Actual Performance 2021/22	Planned Annual Target 2022/23	**Actual Achievement 2022/23	Deviation from planned target to Actual Achievement 2022/23	Reasons for deviations
Inclusion of previously disadvantaged individuals in economic activities	Supply Chain Management (SCM) report on bids awarded to targeted groups	FM3: % procurement spent on designated groups	63% of procurement spent on designated groups in terms of the PPPFA	68% of procurement spent on designated groups	70% of procurement spent on designated groups	76% of procurement spent on designated groups	+6%	Procurement spent increased in Q2 as supply chain activities resumed to full scale after the AGSA audit process.
Provision of adequate and safe facilities for the site office	Approved project plan Project reports	PM2: % implementation of the Cape Town Office construction project plan	100% Implementation of Cape Town Office construction project plan	75% of the Cape Town Office construction project plan implemented	100% Implementation of Cape Town Office construction project plan	100% of the Town Office construction project plan implemented	No deviation	N/A

Table 5: Programme /Sub-programme: NPP

Outcome	Output	Output Indicator	Audited Actual Performance 2020/2021	Audited Actual Performance 2021/22	Planned Annual Target 2022/23	**Actual Achievement 2022/23	Deviation from planned target to Actual Achievement 2022/23	Reasons for deviations
Maintain the implementation of regulatory programmes to assure effective nuclear safety regulation	• Letter to authorisation holder or applicant informing them of review and assessment outcomes • Inventory of reviews and assessments undertaken • Quarterly plan	RM2a: number of inspections conducted (NPP)	100.58% (172/171 inspections conducted)	34/29 inspections conducted	29 inspections conducted	41 inspections conducted	+ 12 additional inspections	10 additional inspections were conducted due to the Steam Generator Replacement Project at the Koeberg site. Another two were reactive inspections conducted in response to Unit 2 turbine trip and in response to previous non-compliances identified during the 2022 emergency exercise.

Outcome	Output	Output Indicator	Audited Actual Performance 2020/2021	Audited Actual Performance 2021/22	Planned Annual Target 2022/23	**Actual Achievement 2022/23	Deviation from planned target to Actual Achievement 2022/23	Reasons for deviations
		RM2b: % implementation of the reviews and assessments plan (NPP)	100% implementation of reviews and assessments	117.92% reviews and assessments undertaken (467/396)	100% implementation of reviews and assessments plan	113.14% of reviews and assessments plan implemented (238/210 current submissions, 3/3 Historical submissions) Total: 241/213	+ 13,14% of reviews and assessment plan implemented (+28 additional submissions)	Additional 28 submissions were reviewed as the quarterly targets are an estimation based on the number of pending tasks and the number of tasks received in previous quarters.
Maintain the implementation of regulatory programmes to assure effective nuclear safety regulation	• Letter to authorisation holder or applicant informing them of review and assessment outcomes • Inventory of reviews and assessments undertaken • Quarterly plan for reviews and assessments	RM2c: % implementation of the reviews and assessments plan (NISL)	N/A	N/A	100% implementation of the reviews and assessments plan	107.14% of the reviews and assessments plan implemented (15/14)	+ 7,14% of reviews and assessment plan implemented (1 additional submission)	The additional review and assessment were related to the Duynefontyn, whereas at the time of targeting, the NISL reviews and assessments were only targeted at Thyspunt.

Outcome	Output	Output Indicator	Audited Actual Performance 2020/2021	Audited Actual Performance 2021/22	Planned Annual Target 2022/23	**Actual Achievement 2022/23	Deviation from planned target to Actual Achievement 2022/23	Reasons for deviations
		RM2d: % implementation of the reviews and assessments plan (SGR)	N/A	N/A	100% implementation of the reviews and assessments plan	112.5% of the reviews and assessments plan implemented. (117/104)	+ 12,5% of reviews and assessment plan implemented (13 additional submissions)	The additional 13 reviews were completed as the planned target is an estimation based on number of pending tasks at the beginning of the quarter and the number of tasks received in previous quarter.
Provide an effective oversight of the Long-Term Operations	Safety evaluation progress report	RM4: % review of LTO safety case	Resource plan for LTO developed and approved	100% of the LTO training plan implemented	Safety evaluation progress report	Safety evaluation progress report compiled	No deviation	N/A

Table 6: Programme /Sub-programme: NTN

Outcome	Output	Output Indicator	Audited Actual Performance 2020/2021	Audited Actual Performance 2021/22	Planned Annual Target 2022/23	**Actual Achievement 2022/23	Deviation from planned target to Actual Achievement 2022/23	Reasons for deviations
Maintain the implementation of regulatory programmes to assure effective nuclear safety regulation	• Inspection reports • Letters to authorisation holder or applicant informing them of inspection outcomes • Inventory of inspections conducted	RM2a: number of inspections conducted (NORM)	100.58% (172/171 inspections conducted)	120/120 inspections conducted	120 inspections conducted	121/120 inspections conducted	+ 1 additional inspection	An additional inspection was conducted at COE-10 due to the potential handling of radioactive material i.e., waste rock processing identified during environmental sampling.
		RM2a: number of inspections conducted (NTWP)	100.58% (172/171 inspections conducted)	50/50 inspections conducted	85 inspections conducted	88/85 inspections conducted	+3 additional inspections	3 additional inspections were conducted at SAFARI-1 and the P2700 Complex (UCHEM) in response to: • an uncontrolled detachment of the control rod actuator at position C5. • a reported malfunction of the ventilation warning system at P2700 Complex (UCHEM). • a reactor scram Neutron Safety Channel (NSC).

Outcome	Output	Output Indicator	Audited Actual Performance 2020/2021	Audited Actual Performance 2021/22	Planned Annual Target 2022/23	**Actual Achievement 2022/23	Deviation from planned target to Actual Achievement 2022/23	Reasons for deviations
Maintain the implementation of regulatory programmes to assure effective nuclear safety regulation	• Letter to authorisation holder or applicant informing them of review and assessment outcomes • Inventory of review & assessments undertaken • Quarterly plan for reviews and assessments	RM2b: % implementation of the reviews and assessments plan (NORM)	100% implementation of reviews and assessments	134.47%, reviews and assessments undertaken (316/235)	100% implementation of reviews and assessments plan	140.63% reviews and assessments plan implemented. (340/236 current submissions, 20/20 Historical submissions) Total: 360/256	+40,63% of reviews and assessment plan implemented (+104 additional submissions)	Additional 104 submissions were reviewed, and response letters were sent to authorisation holders. The additional submissions were reviewed after reprioritising to focus on urgent/critical submissions received by the programme during the reporting period.
		RM2b: % implementation of the reviews and assessments plan (NTWP)	100% implementation of reviews and assessments	105.53% reviews and assessments undertaken (248/235)	100% implementation of reviews and assessments plan	106.46% reviews and assessments plan implemented. (253/243 current submissions, 357/330 Historical submissions) Total: 610/573	+ 6,46% of reviews and assessment plan implemented (+37 additional submissions)	Additional 10 current reviews and assessment were conducted in response to the operational needs of Necsa. 27 additional historical reviews and assessments were completed to clear the backlog.

Outcome	Output	Output Indicator	Audited Actual Performance 2020/2021	Audited Actual Performance 2021/22	Planned Annual Target 2022/23	**Actual Achievement 2022/23	Deviation from planned target to Actual Achievement 2022/23	Reasons for deviations
Maintain the implementation of regulatory programmes to ensure effective nuclear and radiation safety	Approved Stakeholder Consultation Plan	RM3: Develop stakeholder consultation plan for radon in dwellings national plan	Approved indoor radon regulatory framework	Framework under review	Approved Stakeholder Consultation Plan	Stakeholder Consultation Plan approved	No deviation	N/A

Table 7: Programme /Sub-programme: RITS

Outcome	Output	Output Indicator	Audited Actual Performance 2020/2021	Audited Actual Performance 2021/22	Planned Annual Target 2022/23	**Actual Achievement 2022/23	Deviation from planned target to Actual Achievement 2022/23	Reasons for deviations
Provide an independent radio-analytical verification capability and capacity	SANAS Accreditation Report SANAS action plan and progress reports	RM1: SANAS Accreditation Gamma Spec: (Soil/Sediment and Water) ISO/IEC 17025:2017	SANAS accreditation application form submitted successfully SANAS	SANAS accreditation report received	SANAS Accreditation Report Gamma Spec: (Soil/ Sediment) ISO/IEC 17025:2017	SANAS Accreditation Report Gamma Spec: (Soil/ Sediment) ISO/ IEC 17025:2017 received	No deviation	N/A
Ensure readiness to regulate SMRs	NNR readiness report	RM5: % implementation of the SMR plan	None-new indicator	Benchmark report compiled and approved	NNR readiness report on SMRs regulation with plan of action	NNR readiness report on SMRs regulation with plan of action compiled	No deviation	N/A
Ensure the long-term sustainability of the CNSS	Approved CNSS Pilot Report	RM6: Produce pilot report	Integrated CNSS Sustainability Plan developed and approved	CNSS sustainability strategy compiled and approved	Approved CNSS Pilot report (Year 1)	Pilot report compiled and approved	No deviation	N/A

3.6. Strategy to overcome areas of under performance

The NNR will assess the Acts and regulations that are not on 100% compliance in the new financial year and evidence will be collected to demonstrate compliance. An evaluation of controls to determine their adequacy and effectiveness to better prevent, detect and mitigate any non-compliance with legislative requirements within the NNR legislative universe will be conducted in the new financial year 2023/24 and where necessary, recommendations for enhancement and/or improvement proposed. If required by internal stakeholders, Legal Services may facilitate the development and implementation of a training programme on compliance matters affecting the organisation.

The implementation of the costing structure for the CNSS to generate revenue will be implemented in the new financial year. To facilitate this, the programme piloted nine sub-projects for 2022/23, a report was compiled to that effect. The timelines for implementing the deliverables associated with revenue generating activities have been revised up to March 2025.

3.7. Linking performance with budgets

Table 8: Linking Performance with budgets: Per Programme Output

			2022/23			2021/22		
Programme Output	**Code**	**Description**	**Budget** R'000	**Actual** R'000	**Variance Under/ (Over)** R'000	**Budget** R'000	**Actual** R'000	**Variance Under/ (Over)** R'000
To process applications for nuclear authorisations in a timely and accurate manner	135, 137, 138, 146, 147, 148 & 149	Personnel	26 223	24 490	1 733	21 244	25 795	(4 552)
		Goods & Services	27 809	14 809	12 999	27 510	19 213	8 296
	Total		**54 031**	**39 299**	**14 732**	**48 753**	**45 009**	**3 744**
To ensure effective implementation of nuclear security measures by authorisation holders	139 & 175	Personnel	4 543	4 902	(359)	4 710	4 144	566
		Goods & Services	406	212	194	265	106	159
	Total		**4 949**	**5 114**	**(165)**	**4 975**	**4 250**	**725**
To establish an independent verification capability for the NNR	136 & 140	Personnel	8 339	7 685	654	8 095	7 421	674
		Goods & Services	972	618	354	1 134	364	770
	Total		**9 311**	**8 303**	**1 008**	**9 229**	**7 785**	**1 444**
To provide assurance of safety performance of authorisation holders through inspections, audits, investigation and taking enforcement action for identified non-compliance	171-174, 176-179	Personnel	40 265	38 899	1 366	43 781	46 086	(2 305)
		Goods & Services	4 339	3 670	668	2 733	1 922	810
	Total		**44 604**	**42 570**	**2 034**	**46 513**	**48 008**	**(1 495)**

			2022/23			2021/22		
Programme Output	Code	Description	Budget R'000	Actual R'000	Variance Under/ (Over) R'000	Budget R'000	Actual R'000	Variance Under/ (Over) R'000
Good governance	124-128	Personnel	16 856	15 930	926	17 728	17 380	348
		Goods & Services	8 262	5 959	2 302	7 075	3 856	3 219
	Total		**25 117**	**21 889**	**3 228**	**24 803**	**21 236**	**3 567**
Financial viability and sustainability	155, 156 & 158	Personnel	12 496	35 767	(23 271)	15 113	29 028	(13 915)
		Goods & Services	28 156	24 732	3 424	23 360	31 837	(8 478)
	Total		**40 653**	**60 499**	**(19 847)**	**38 473**	**60 865**	**(22 393)**
High performance culture, effective human capital management	142, 144, & 145	Personnel	11 067	10 943	124	13 217	9 876	3 340
		Goods & Services	10 711	7 051	3 660	9 183	6 220	2 964
	Total		**21 778**	**17 994**	**3 784**	**22 400**	**16 096**	**6 304**
Sound organisational infrastructure	143	Personnel	5 188	4 851	338	5 253	4 644	609
		Goods & Services	18 930	14 797	4 133	15 190	12 815	2 375
	Total		**24 118**	**19 648**	**4 471**	**20 443**	**17 459**	**2 984**
Stakeholder relations and corporate image	141	Personnel	3 032	2 934	99	3 242	2 786	456
		Goods & Services	6 540	5 561	979	4 174	3 462	712
	Total		**9 572**	**8 495**	**1 078**	**7 415**	**6 248**	**1 168**
To provide an independent analytical verification capability and capacity	160-167	Personnel	49 094	48 160	934	52 994	54 896	(1 902)
		Goods & Services	16 042	6 561	9 482	17 238	8 722	8 516
	Total		**65 136**	**54 720**	**10 416**	**70 231**	**63 618**	**6 613**

Table 9: Linking Performance with budgets: Per Programme

		2022/23			2021/22		
Programme	Description	Budget R'000	Actual R'000	Variance Under/ (Over) R'000	Budget R'000	Actual R'000	Variance Under/ (Over) R'000
Administration	Personnel	48 640	70 425	(21 785)	54 553	63 714	(9 162)
	Goods & Services	72 599	58 156	14 442	58 982	58 190	(792)
	Total	**121 239**	**128 581**	**(7 343)**	**113 534**	**121 904**	**(8 369)**
NNP	Personnel	34 562	32 175	2 387	29 339	33 217	(3 878)
	Goods & Services	28 781	15 428	13 353	28 644	19 578	9 066
	Total	**63 342**	**47 603**	**15 739**	**57 983**	**52 794**	**5 189**
NTN	Personnel	44 808	43 801	1 007	48 491	50 230	(1 739)
	Goods & Services	4 745	3 883	862	2 998	2 028	969
	Total	**49 553**	**47 684**	**1 869**	**51 488**	**52 258**	**(770)**
RITS	Personnel	49 094	48 160	934	52 994	54 896	(1 902)
	Goods & Services	16 042	6 561	9 482	17 238	8 722	8 516
	Total	**65 136**	**54 720**	**10 416**	**70 231**	**63 618**	**6 613**

4. Revenue Collection

	2022/23			2021/22 restated		
Sources of revenue	Budget R'000	Actual R'000	Variance Under/(Over) R'000	Budget R'000	Actual R'000	Variance Under/(Over) R'000
Authorisation fees	223 261	223 035	226	210 884	210 427	457
Application fees	48 936	26 623	22 313	41 951	25 402	16 549
State grant	47 308	47 308	-	46 089	46 089	-
Other revenue	11 380	30 626	(19 246)	8 148	10 008	(1 860)
Total	**330 885**	**327 593**	**3 292**	**307 072**	**291 926**	**15 146**

An increase of 12% in total revenue, from R291 million to R327 million, was reported for the period ended 31 March 2023. This is a significant improvement, considering the economic conditions that the South African economy still faces, post the COVID-19 pandemic.

The authorisation fees continue to account for the biggest portion of total revenue. On average, this revenue stream accounts for about 70% of total revenue.

The under-collection of revenue from application fees is consistent with the previous financial year, due to the unpredictability of this stream of revenue. This revenue stream fluctuates year-on-year, based on the number of applications received, and additional work agreed upon with applicants on ongoing projects (e.g. Eskom's Nuclear Installation Site Licence and Steam Generator Replacement (SGR) projects).

Revenue from state grant increased marginally compared to the 2021/22 financial year. This grant has shown a gradual diminishing trend and, exacerbated by the overall negative economic outlook, and is expected to continually decrease over the Medium Term Expenditure Framework (MTEF) period.

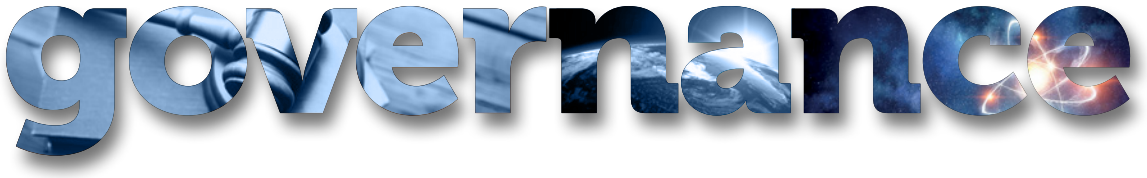
The over-collection in other revenue is mainly attributed to the positive cash balances accumulated over the financial year. The advance billing and collection of revenue largely contributed to the positive cash balances. Also included in this revenue stream is deferred income recognised from conditional grants.

5. Capital Investment

	2022/23			2021/22		
Sources of revenue	**Budget R'000**	**Expenditure R'000**	**Balance R'000**	**Budget R'000**	**Expenditure R'000**	**Balance R'000**
Conditional Grant	12 894	12 894	-	12 894	-	12 894
Retained Surplus	43 918	1 341	42 577	-	-	-
Total	**56 811**	**14 234**	**42 577**	**12 894**	**-**	**12 894**

Spending on capital investment relates to the construction of the Cape Town Site Office. This project is funded from the conditional grant and surplus funds retained in previous financial years, approved by National Treasury. The balance of the conditional grant carried over from the 2021/22 financial year was fully utilised during the period reporting period (refer to note 11). The remaining balance of the surplus funds will be utilised to complete rolled over projects.

PART C:



PART C: GOVERNANCE

1. Introduction

Corporate governance embodies processes and systems by which public entities are directed, controlled and held to account. In addition to legislative requirements based on the Regulator's enabling legislation, and the Companies Act, corporate governance with regard to public entities is applied through the precepts of the Public Finance Management Act (PFMA) and run in tandem with the principles contained in the King's Report on Corporate Governance.

Parliament, the Executive, and the Accounting Authority of the Regulator are responsible for corporate governance. The Corporation is listed as a Schedule 3A Regulator in terms of the PFMA.

South Africa's legislative framework for corporate entities also applies to the Regulator, although the PFMA supersedes all other legislation apart from the Constitution.

The Entity is aligned to the King Report on Corporate Governance, 2016 (King IV).

Compliance with the PFMA drives the transparency, accountability and sound management of revenue, expenditure, assets and liabilities in public entities. The NNR Board, as the Accounting Authority, takes effective and appropriate steps to prevent irregular, fruitless and wasteful expenditure. The Corporation's Materiality and Significance Framework is reviewed annually.

2. Portfolio Committee

The NNR presented its 2021/22 Annual Report to the Portfolio Committee on Energy on 13 October 2022. The NNR assured the Committee that all nuclear installations and regulated entities under the purview of the NNR did not expose workers to undue levels of ionising radiation or cause nuclear damage to the environment during the reporting period. The NNR successfully fulfilled its fiduciary duties and continued to discharge its mandate in accordance with best practices in governance whilst complying with regulatory and legislative requirements.

3. Executive Authority

The Minister of the Department of Mineral Resources and Energy serves as the Executive Authority of the NNR.

4. Accounting Authority/Board of Directors

The Board of Directors is the Accounting Authority in terms of the PFMA and the NNRA. The Board is appointed for a renewable period of three years by the Minister of Mineral Resources and Energy. In terms of Section 8 (1) and (2) of the NNRA, the Regulator is governed and controlled, in accordance with the NNRA, by a Board of Directors to ensure that the objectives of the NNRA are carried out, and to exercise general control over the performance of the Regulator's functions. The Regulator is governed by a unitary Board of Directors who, collectively, have the required experience and business acumen to guide the company's strategy and governance.

The Board of Directors embraces the principles of good corporate governance and considers these as the underlying philosophy in creating organisational excellence at all levels within the Regulator.

4.1. Role of the Board

The Board sets the precedent in driving the ethics of good governance and the Directors, collectively and individually, acknowledge their responsibilities and duties in terms of the Board Charter and other governance, regulatory and legislative requirements. The Board of Directors is ultimately accountable for the governance and performance of the NNR. The Board provides oversight, strategic direction, leadership and approves strategic policies of the NNR.

4.2. Board Charter

The Board Charter is reviewed annually and sets out the responsibilities of the Board. The charter ensures that the Board exercises full control over significant matters, including the Regulator's vision, mission and values, strategic objectives, strategic plans, annual budget, and performance monitoring against set objectives, as well as its design, integrated report, and annual financial statements. The Board Charter supports independence and objective decision-making.

None of the Directors have contractual or family relationships with the company, nor do they participate in company incentive schemes or charities that benefit from donations by the Regulator. This ensures fair, unbiased, and unfettered judgements about matters that affect the Regulator.

4.3. Composition of the Board

The Board consists of nine Directors which comprise of six independent non-executive Directors, two non-executive Directors (government representatives) and the CEO as an Executive Director. Board members, including the CEO hold office for a maximum of three years but are eligible for re-appointment.

The Board adopted the principles of openness, integrity and accountability as espoused in the King Code on Corporate Governance (King IV). All directors have a fiduciary duty to exercise due care and skill in carrying out their responsibilities. The Board is accountable to the shareholder for the Corporation's activities and performance. The roles of the Chairperson and CEO are separated. The Chairperson is an independent Non-executive Director who ensures that the Board functions efficiently and operates as a unit. The responsibility for managing the Corporation's business is delegated to the CEO, as the Executive Director accountable to the Board.

BOARD MEMBERS

Dr. T Motshudi
Chairperson of the Board

Date re-appointed:
1 September 2020

Qualifications	Area of Expertise	Board Directorships	Committees or Task Teams	Meetings attended
MB ChB, A+ Support Professional, Advanced Trauma Life Support, Advanced Cardiovascular Life Support, BSc Chemical Engineering.	Radiology	Prosper Healthcare	Nil	21

Ms. D Peta
Deputy Chairperson of the Board

Date appointed:
1 September 2020

Qualifications	Area of Expertise	Board Directorships	Committees or Task Teams	Meetings attended
LLB Degree (Admitted Attorney of the High Court), Practical Legal Training Certificate, LLM Degree in Environmental Law, Post-graduate Diploma in International Maritime Law (current).	Law	Alexkor SOC Limited, Gauteng Department of Agriculture and Rural Development, Baphalane Ba Mantserre Community Development Trust.	NNR Board Technical Committee, NNR Board Human Resources and Remuneration Committee.	24

Dr. Z Qunta
Board Member

Date appointed:
1 September 2020

Qualifications	Area of Expertise	Board Directorships	Committees or Task Teams	Meetings attended
PHD-Topic: Effectiveness of Public entities, Public Sector Corporate Governance Certificate, Bachelor of Administration degree, Master of Commerce, Master of Business Administration.	Governance, PFMA and MFMA, Strategic planning, Business planning, Financial accounting, Management accounting, Performance management, Macro-economic planning, Corporate governance, Government budgeting and expenditure management, Government Supply Chain Management, Strategy Development, Policy Development, Skills Audit, Training and development.	Durban ICC, Rand Water, ITB.	NNR Audit and Risk Management Committee, NNR Board Human Resources and Remuneration Committee, Chairs the Audit and Risk Committee of the National Department of Rural Development and Land Affairs.	25

Ms. V Bendeman
Board Member

Date appointed:
1 September 2020

Qualifications	Area of Expertise	Board Directorships	Committees or Task Teams	Meetings attended
LLB Degree, BA Law, Practical Legal Training, Certificate of competence in Business Communication skills, Course in Procurement and Tender approval, Legal Drafting Certificate, Certificate in Medical-Legal Practice, Executive Coaching.	Law	Nil	NNR Board Technical Committee.	4

Mr. P Phili
Board Member

Date appointed:
1 September 2020

Qualifications	Area of Expertise	Board Directorships	Committees or Task Teams	Meetings attended
Master of Commerce (Taxation), Postgraduate Diploma in Accountancy B. Com (Hon), Advanced Certificate in Auditing Apt, Bachelor of Commerce (Accounting).	Accounting Audit	Rand Water, Rand Water Medical Scheme, Financial Intelligence Agency, City Power Johannesburg (SOC) Ltd, Independent Regulatory Board for Auditor's.	NNR Audit and Risk Management Committee.	26

Ms. D Kgomo
Executive Director

Date appointed:
1 November 2022

Qualifications	Area of Expertise	Board Directorships	Committees or Task Teams	Meetings attended
MSc. Chemistry, LLM – Energy Law and Policy, Management Advancement Programme certificate, Post-Graduate Diploma in Coaching (in progress).	Nuclear Safety Regulation, Nuclear non-proliferation, Nuclear Policy and Legislation, Strategic Planning, Leading and supervision, Coaching and Mentoring.	Member of the NNR Board, Chairperson of the South African Council for the Non-Proliferation of Weapons of Mass Destruction.	NNR Board Technical Committee, NNR Board Human Resources and Remuneration Committee, NNR Audit and Risk Management Committee.	13

Mr. K Maphoto
Board Member

Date appointed:
1 February 2020

Qualifications	Area of Expertise	Board Directorships	Committees or Task Teams	Meetings attended
Executive Leadership Programme, M.Sc. (Applied Environmental Nuclear Physics), B.Sc. (Honors) Physics, Bachelor of Science (Physics and Chemistry).	Nuclear Physics	Nil	NNR Board Technical Committee.	7

Mr. B Petlane
Board Member

Date appointed:
1 September 2020

Qualifications	Area of Expertise	Board Directorships	Committees or Task Teams	Meetings attended
Masters in engineering management, Post Graduate Diploma in Electrical Engineering, Bachelor of Engineering-Electrical, International Baccalaureate Diploma.	Electrical Engineering	Nil	NNR Board Technical Committee, NNR Audit and Risk Management Committee, Committee Member (ECSA) Investigations and Compliance -2012-2017. (Current)	

Mr. D Mamphitha
Board Member

Date appointed:
1 September 2020

Date of resignation:
31 July 2022

Qualifications	Area of Expertise	Board Directorships	Committees or Task Teams	Meetings attended
Advanced Directorship Programme, MBA, Post Graduate Diploma in Mining Engineering, Bachelor of Commerce, National Higher Diploma-Metallurgy.	Project Management, Health Safety and Environmental management, Contract negotiation and management, Negotiation skills, Business presentation skills, Stakeholder engagement and relationship management, Strategy development, implementation, and monitoring, Conflict and people management and leadership skills, Coaching and Mentoring, Report writing Skills.	Nil	NNR Board Technical Committee, NNR Board Human Resources and Remuneration Committee, NNR Audit and Risk Management Committee.	5

Ms. L Dlamini
Board Member

Date appointed:
1 September 2020

Qualifications	Area of Expertise	Board Directorships	Committees or Task Teams	Meetings attended
Master of Science Degree in Environmental Management, Bachelor of Science in Environmental and Water, Science Honours Degree, Bachelor of Science Degree in Environmental Science.	Environmental Management, Compliance Management, Auditing Processes, Report Writing, Strategy Development & Implementation, Policy Development & Implementation, Organisational Sustainability, People Management.	South African Maritime Safety Authority	NNR Board Human Resources and Remuneration Committee, NNR Audit and Risk Management Committee, TCTA, South Africa-Technical Committee, TCTA, South Africa-HRRC.	20

Ms. V Miya
Board Member

Date appointed:
10 June 2021

Date of resignation:
31 October 2022

Qualifications	Area of Expertise	Board Directorships	Committees or Task Teams	Meetings attended
Post Graduate Diploma in Labour Law, School for Legal Practice 2008(2) (Law School), Baccalaureus Legum (LLB) degree.	Labour law	Nil	NNR Board Human Resources and Remuneration Committee.	13

Mr. M Mosia
Board Member

Date appointed:
15 November 2021

Qualifications	Area of Expertise	Board Directorships	Committees or Task Teams	Meetings attended
Higher Certificate in Business Management, B-Tech Project Management, National Diploma Mechanical, Qualified Fitter & Turner, MLDP (management & Leadership Development Programme) ESDP (Eskom Supervisory Development Programme) Eskom.	Mechanical, Business Management, Project Management.	Nil	NNR Board Technical Committee, NNR Board Human Resources and Remuneration Committee.	21

Mr. A Taylor, Alternate Board Member, Resigned on 26 January 2023

Table 10: Committees

Committee	No. of meetings held	No. of members	Name of members
Audit and Risk Management Committee (ARMCOM)	7	4	Mr. P Phili (Chairperson) Mr. B Petlane Dr. Z Qunta Mr. D Mamphitha (resigned 31 July 2022) Ms. L Dlamini
Technical Committee (TC)	6	5	Mr. B Petlane (Chairperson) Mr. K Maphoto Ms. V Bendeman Ms. D Peta Mr. M Mosia
Human Resources and Remuneration Committee (HRRC)	6	3	Dr. Z Qunta (Chairperson) Ms. V Miya (resigned 31 October 2022) Mr. D Mamphitha (resigned 31 July 2022) Ms. L Dlamini Ms. D Peta

The remuneration of Board members is determined by the Minister of Mineral Resources and Energy with the concurrence of the Minister of Finance and is reviewed annually. Board and Committee members are remunerated for attending meetings and other Board activities e.g., workshops. The details of the remuneration for the year ended March 2023 are stated in Notes to the Annual Financial Statements on pages 162-187.

Table 11: Remuneration of board members

Name	Remuneration	Other allowance	Other re-imbursements	Total
Dr. T Motshudi (Chairperson)	226 254	-	22 000	**248 254**
Ms. PD Peta (Deputy Chairperson)	196 607	-	1 170	**197 777**
Mr. P Phili	221 459	-	1 622	**223 081**
Ms. LN Dlamini	118 208	-	14 448	**132 656**
Dr. NZ Qunta	176 043	-		**176 043**
Ms. V Miya	79 045	-	2 460	**81 505**
Mr. MA Mosia	170 273	-	36 563	**206 836**

5. Risk Management

Effective risk management in the NNR is fundamental for the delivery of the organisation's mandate, and achievement of strategic deliverables. The Board is responsible for the governance and mitigation of risk and holds the CEO and the Management accountable for risk management.

During the reporting period the organisation implemented the risk management policy, strategy and action plan. The risk management function conducted periodic risk assessments to assess material risks that may affect the delivery of pre-determined objectives and to identify opportunities which could be channelled back to the organisational strategy.

Responsibility and accountability for risk management resides at all levels within the organisation, from the Board down to each division and the Risk Management Analyst. The Risk Steering Committee held quarterly meetings to discuss the risks affecting the organisation to ensure that appropriate, adequately designed and effective action plans that are mitigation strategies are in place and compliance to the risk governance standards. The Risk Champions forum met quarterly to monitor and ensure that actions aimed at addressing the identified risks at operational level were implemented during the year under review.

The monitoring and reporting of the risk management implementation plans were monitored using a risk register and all relevant risk monitoring tool to ensure the achievement of an appropriate balance between risk and reward in our organisation. The status of key risks was reported to the Executive Committee, ARMCOM and the Board. Identification of new/emerging risks remained a standing agenda item at the Risk Steering Committee.

The NNR's risk management processes continued to be effective throughout the year, despite a tough economic environment. Executive management remained closely involved in important risk management activities and ensuring that controls are in place, action plans are implemented and reported regularly.

6. Internal Control

The risk management function successfully conducted the NNR strategic and operational risk assessments. This included risk incident reporting and monitoring the implementation of action plans to mitigate identified residual risks.

The effectiveness of risk management within the NNR was assessed using the National Treasury Financial Management Capability Maturity Model (FMCMM). The risk maturity level remains at level five out of six. This indicated that the NNR's approach to risk management added value and it improved the overall performances of the organisation.

The internal audit department conducted audits to assess the adequacy and effectiveness of controls relating to the specific activities. The objective was to ensure that management's control strategies are consistent with the organisation's objectives. Recommendations relating to the adequacy and effectiveness of controls were made where required. All significant findings were reported to the ARMCOM. There is constant communication between the risk management and internal audit functions to ensure that the risks identified are utilised by internal audit during audit planning and execution in order to provide assurance that mitigation strategies and controls are being implemented by management.

7. Internal Audit and Audit Committees

The in-house Internal Audit function is governed by an approved Internal Audit Charter and upholds the Institute of Internal Auditor's International Standards for the Professional Practice of Internal Auditing (Standards) in executing its deliverables.

Internal Audit provides reasonable assurance to the Board, Audit and Risk Committee and Management, on the adequacy and effectiveness of internal controls, risk management and governance processes.

7.1. Objectives and key activities of the Internal Audit

In accordance with the definition of internal auditing and the authority to establish and maintain an internal audit function as contained in the PFMA and its Treasury Regulations, the NNR's Internal Audit department provided independent, objective, assurance and advisory services, designed to add value and improve the NNR's operations. To ensure independence, the Chief Audit Executive reports functionally to ARMCOM and administratively to the CEO.

The responsibilities of the Internal Audit department included the following:

- Monitoring and evaluating the organisation's governance processes including ethics.
- Performing an objective assessment of the effectiveness of risk management and the internal control framework.
- Systematically analysing and evaluating business processes and associated controls.
- Developing the combined assurance programme for the NNR.

7.2. Summary of Audit assignments completed

The annual allocation of internal audit resources to audit activities was established based on an approved annual internal audit plan. ARMCOM remained responsible for approving the rolling three-year and annual internal audit plans.

During 2022/23 the NNR conducted 16 internal audits. The NNR's Internal Audit Department conducted 11 internal audits and 5 internal audits were conducted by external service providers. The internal audits focused on the following areas: Finance (including Supply Chain Management); CSS; Information Technology; Legal, Risk and Compliance; Strategy and Organisational Performance, NPP programme, NTWP programme, and Emergency Preparedness and Response. The outcomes and recommendations of the audits were discussed with the management team and action plans and implementation dates to address the recommendations were developed.

The Internal Audit department continued to implement actions to address issues raised in the Quality Assessment Review (QAR) report. Progress updates on the implementation were reported to the ARMCOM.

7.2.1. Combined Assurance

In line with the provisions of KING IV report on Corporate Governance, the National Treasury guidelines and the International Standards for the Professional Practice of Internal Auditing Standard (IIA Standard 2050-Coordination and Reliance), the Internal Audit department embarked on a process of developing the combined assurance Programme for the NNR. Meetings were held with identified internal stakeholders and by the end of the financial year under review, the draft assurance map was presented to the ARMCOM.

The process will continue in the next financial year, with the development of the possible combined assurance strategy, framework, methodology, plan and reporting guidelines.

7.3. Objectives and key activities of the Audit Committee

The Audit Committee's mandate is, among others, to review the effectiveness of internal controls, ensure satisfactory standards of governance and compliance, and oversee risk management including risk control systems. The Audit Committee complied with all applicable legal requirements as necessary under the legislation and applied the appropriate corporate governance practices for audit committees as recommended by King IV.

For the period under review the Audit Committee assisted the Board in overseeing financial reporting risks, effectiveness of internal audit and the organisation's systems for internal control. The Audit Committee comprised of five non-executive directors.

Relevant information on the Audit Committee is disclosed in the following table.

Table 12: Audit Committee

Name	Qualifications	Internal or external	If internal, position in the public entity	Date appointed	Date Resigned	No. of Meetings attended
Mr. P Phili (Chairperson)	Master of Commerce (Taxation_Postgraduate Diploma in Accountancy-B. Com (Hon) Advanced Certificate in Auditing Apt Bachelor of Commerce (Accounting)	External	N/A	1 September 2020	Active	7
Mr. B Petlane	Masters in Engineering Management Post Graduate Diploma in Electrical Engineering Bachelor of Engineering-Electrical International Baccalaureate Diploma	External	N/A	1 September 2020	Active	6
Dr. Z Qunta	PHD-Topic: Effectiveness of Public Entities Public Sector Corporate Governance Certificate Bachelor of Administration Master of Commerce Master of Business Administration	External	N/A	1 September 2020	Active	6

Name	Qualifications	Internal or external	If internal, position in the public entity	Date appointed	Date Resigned	No. of Meetings attended
Mr. D Mamphitha	Advanced Directorship Programme MBA Post Graduate Diploma in Mining Engineering Bachelor of Commerce National Higher Diploma-Metallurgy	External	N/A	1 September 2020	31 July 2022)	2
Ms. L Dlamini	Master of Science Degree in Environmental Management Bachelor of Science in Environmental and Water Science Honours Bachelor of Science in Environmental Science	External	N/A	1 September 2020	Active	6

8. Compliance with Laws and Regulations

The NNR operates in a highly regulated environment. The Board plays an oversight role in ensuring that the NNR complies with applicable laws and considers adherence to non-binding rules, codes, and standards. The NNR has a dedicated unit for monitoring compliance to laws and regulations.

Management committees in line with the delegation of authority, escalates material regulatory issues to the Board and corrective actions are taken to address any identified non-compliance.

9. Fraud and Corruption

The effective management of fraud and corruption risks should focus on key areas of prevention, detection, and response. The executive management has ensured that the following documents approved by the Board which are fraud and corruption prevention policy, the whistle blowing policy, a fraud and corruption prevention plan as well as a fraud and corruption response plan are implemented and adhered to in the NNR.

Risk, fraud and prevention awareness workshops were conducted for the entire organisation to ensure that all NNR staff are aware of the internal and external impact of fraud and corruption. A fraud risk assessment was conducted internally with managers aimed at identifying and reviewing potential fraud and corruption risks. The identified fraud risks were rated according to the risk management matrix of the NNR and the risk owners were requested to provide mitigation plans to address any control deficiencies. A consolidated fraud register was developed and approved by the Board.

Monitoring and tracking of the implementation of action plans were conducted on a regular basis to manage identified fraud and corruption risks to an acceptable level within the organisation. In 2022/23 there were no reports of whistle blowing.

Fraud and corruption risks and activities have consistently been monitored and addressed at the Risk Steering Committee. Management of these activities is aligned to the risk management activities to ensure effective and efficient reporting processes.

10. Code of Conduct

The NNR's code of conduct and ethics framework is aligned to the public servants code of conduct. The framework sets out the ethical standards and behaviours which must be adhered to. The code of conduct serves to guide employees as to what is expected of them from an ethical point of view, both in their individual conduct in public and private life. The conduct of NNR employees is guided by core organisational values which have been developed for the benefit of the Regulator and its employees. Its prime purpose is to promote a culture of ethical behaviour and to instil public trust and confidence in the regulator's employees who are required to be impartial and to act with integrity.

This framework covers inter alia the relationships between employees and stakeholders, conflicts of interest, and information security. Breaches to the code of conduct are handled in accordance with the applicable organisational processes. Serious offences of misconduct such as the unauthorised disclosure of classified information may result in criminal charges being laid against the offender.

11. Health, Safety and Environmental Issues

The NNR remained committed to providing and maintaining a healthy and safe workplace environment for its employees. The NNR's Health and Safety Committee has been appointed in compliance with the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) During the reporting period the NNR conducted quarterly workplace inspections, and external health, safety and environmental assessments and audits. Remediation plans were developed and implemented for issues identified during the inspections and audits conducted.

There were three on duty incidents reported. The incidents did not result in any serious injuries. Corrective measures were implemented and employee awareness sessions conducted to address the issues and prevent a repetition of incidents which could have been avoided.

The NNR conducted four emergency drills and provided feedback to employees in view of improving the established evacuation processes. Eleven training and awareness sessions on various health and safety related topics were conducted.

The NNR conducted periodic medical surveillance of employees to ensure that employees are healthy and fit for duty. Employees were issued with the requisite personal protective equipment to carry out their responsibilities. Quarterly health and safety inspections of the Cape Town construction project were carried out and compliance with applicable legislation was maintained.

12. Board Secretary

The Board Secretary guides and assists the Board of Directors to discharge their legal oversight and regulatory responsibilities and duties in the best interests of the Regulator. The Board Secretary's duties include providing Directors with timely and unrestricted access to corporate information, director training, induction, Board and Board committee performance evaluations, meeting agendas and minutes.

13. Social Responsibility

Social upliftment efforts for the reporting period included the donation of sanitary hygiene comfort packs to underprivileged girl learners from the Thuto Thebe and Dirang-Ka-Natla Secondary Schools in Klerksdorp, donation of reading books to the Nebo Primary School in Cape Town and donation of groceries to the Emmanuel Old-Age home in Mmakau village, Madibeng Local Municipality.

14. Audit and Risk Management Committee Report

The Audit and Risk Management Committee is pleased to present its report for the financial year ended 31 March 2023.

Membership and Attendance

The membership and attendance of the Audit and Risk Management Committee are as reflected in the Corporate Governance section of the annual report. The committee is required to meet at least four times per annum as per its approved terms of reference.

Audit and Risk Management Committee Responsibility

The Audit and Risk Management Committee reports that it has adopted appropriate formal terms of reference as its charter in line with the requirements of sections 51(1)(a)(ii) of the Public Finance Managemnet Act (PFMA) and Treasury Regulations 27.1. The Audit and Risk Management Committee further reports that it has conducted its affairs in compliance with its charter.

The Quality of In-Year Quarterly Reports Submitted in Terms of the PFMA

The Audit and Risk Management Committee reviewed the in-year quarterly reports submitted by management during the period under review and it is satisfied with the quality of these reports.

The Effectiveness of Internal Control

In line with the PFMA requirements, Internal Audit provides the Audit and Risk Management Committee and management with assurance whether or not the system of internal controls is adequate and effective. This is achieved by means of adopting transparent risk management processes and risk based internal audit plans that are reviewed regularly.

From the various reports of the Internal Audit, the audit report on the annual financial statements and the management letter of the Auditor-General South Africa (AGSA), refer to paragraph 31 of the Audit Report. Management is continuously putting in place corrective action plans to address weaknesses identified and reported by the Internal Audit. The Audit and Risk Management Committee regularly reviewed action plans implemented by management to address the reported weaknesses.

Accordingly, the Audit and Risk Management Committee is satisfied that the system of internal controls over the financial reporting for the period under review was transparent, adequate and effective.

The Review of Risk Managemnet Processes

The Audit and Risk Management Committee is responsible for the oversight of the risk management function. Management reports to the Audit and Risk Management Committee on the organisation's risk management processes. The Audit and Risk Management Committee reviewed the risk management policy, risk management strategy and enterprise risk management plan. The Audit and Risk Mananement Committee has monitored the implementaiton of the risk management plan and is generally satisfied with how the risk management processes are being managed.

Internal Audit

The Audit and Risk Management Committee is satisfied that the internal audit function is operating effectively and that it has addressed the risks pertinent to the entity in its audits.

The Audit and Risk Management Committee has met separately with the Internal Audit to ensure that the function is executed effectively and objectively.

Evaluation of Annual Financial Statements

The Audit and Risk Management Committee has:

- Reviewed and discussed the audited annual financial statements to be included in the annual report with the Auditor-General South Africa and management;
- Reviewed the management letter issued by Auditor-General South Africa and management's response thereto;
- Reviewed changes in accounting policies and practices, where applicable;
- Reviewed the entity's compliance with legal and regulatory provisions; and
- Reviewed significant adjustments resulting from the audit.

Auditor-General South Africa

The Audit and Risk Management Committee has met with the Auditor-General South Africa to ensure that there are no unresolved issues of concern.

The Audit and Risk Management Committee recommended the approval of the audited annual financial statements by the Board.

Protas Phili CA(SA)
Chairperson of the Audit and Risk Management Committee
31 July 2023

15. B-BBEE Compliance Performance Information

The Broad-Based Black Economic Empowerment Act (Act 53 of 2003), as amended (the B-BBEE Act 46 of 2013), read together with the B-BBEE Regulations, requires that all spheres of government, public entities and organs of state as well as companies listed on the Johannesburg Stock Exchange (JSE) report to the B-BBEE Commission annually on their compliance with broad-based black economic empowerment.

The NNR supports the broad impetus of B-BBEE to structure and transform the economy to enable meaningful participation of the majority of its citizens, and to further create capacity within the broader economic landscape at all levels.

The following table has been completed in accordance with the compliance to the B-BBEE requirements of the B-BBEE Act of 2013 and as determined by the Department of Trade and Industry.

Code of Good Practice (B-BBEE Certificate Levels 1-8) with regards to the following:

Criteria	Response Yes/No	Discussion
Determining qualification criteria for the issuing of licences, concessions or other authorisations in respect of economic activity in terms of any law?	No	As a regulatory body, the NNR among other things, issues nuclear licences and regulates the safety and security for nuclear power plants technology. Currently the qualifying criteria applied is that which is determined in terms of the Legislation (NNRA).
Developing and implementing a preferential procurement policy?	Yes	NNR has developed a preferential procurement policy and has supply chain management processes.
Determining qualification criteria for the sale of state-owned enterprises?	No	Not applicable
Developing criteria for entering into partnerships with the private sector?	Yes	NNR is guided by Chapter 16 of Treasury Regulations in entering into partnerships with the private sector.
Determining criteria for the awarding of incentives, grants and investment schemes in support of Broad-Based Black Economic Empowerment?	No	The award of incentives, grants and investments is not the core activity of NNR. However, the NNR does make investments in the form of bursary awards to staff and corporate social responsibilities that would target previously disadvantaged individuals and institutions such as schools etc.

PART D: HUMAN resources

PART D:
HUMAN RESOURCES

1. Introduction

The Human Resource Management (HR) function focused on the following key areas:

- Recruitment and selection.
- Remuneration and rewards.
- Succession planning.
- Performance management.
- Training and development.
- Employee relations.
- Employee wellness.

During the reporting period the NNR focused on delivering all HR services in accordance with key organisational processes. All planned HR deliverables were achieved which demonstrates the efficient and effective management of human resources and our commitment to treating employees as invaluable resources.

1.1. Employee performance management framework

The organisation's has an integrated performance management system incorporates three aspects of performance management which are: strategic performance, operational performance, and individual performance. Final individual performance is a weighted factor of all three aspects of performance management.. The performance management cycle entails contracting, reviewing, assessing,moderating and rewarding where applicable.. NNR continued to build and maintain a high-performance culture.

1.2. Policy development

During the reporting period, the NNR reviewed and updated its Human Resources Policy in accordance with the Integrated Management System. Relevant changes were made and new processes developed to accommodate a hybrid working arrangement following the organisation's successful remote work arrangements during the COVID-19 pandemic.

1.3. Training and Development

The NNR developed and implemented the annual workplace skills plan. As per the Annual Training Report filed with the Energy and Water Sector Training Authority for January to December 2022, the NNR conducted 178 training activities against a planned target of 70. The NNR also provided work experience opportunities for sixteen learners during this period.

1.4. Employee Wellness Programme

During the reporting period, the NNR successfully implemented a programme which focused on a holistic integrated and comprehensive approach to employee wellness. The key activities included ongoing communications and engagement with employees at all levels. The activities implemented under the NNR's Employee Wellness Programme were aligned to key national programmes and also focused on issues of concern which are specific to NNR employees. The NNR participated in the DMRE Gender Committee which strives to eradicate all forms of gender-based discrimination in the sector. The NNR's Employment Equity and Skill Development Committee played a significant role in ensuring the successful implementation of the Employee Wellness Programme during the reporting period.

1.5. Employee Relations

The NNR remained resolute to building and maintaining good relationships with all internal stakeholders. Quarterly meetings with the recognised trade union were held and a wage agreement for the reporting period was concluded. The NNR employee forum met quarterly to discuss issues raised by employees. Matters relating to employee interests were also successfully addressed during the CEO quarterly staff engagement sessions.

1.6. Challenges

The NNR experienced challenges in recruiting senior level staff in specialised engineering fields due to the limited number of available resources with nuclear-related experience in South Africa. In response to this challenge, the NNR continued to focus on growing its own talent though various internship and trainee programmes. The NNR provided opportunities for employees to progress within the organisation resulting in 46% of vacant positions being filled by internal candidates.

1.7. Future HR plans/goals

The NNR will incorporate remote work as an organisational policy in the new financial year. In view of strengthening the NNR's resource capacity, a competency audit for all employees will be conducted to verify the levels of competence within organisation and identify areas to be addressed through further training and development.

2. Human Resource Oversight Statistics

2.1. Personnel related expenditure

Table 13: Personnel Cost by programme/activity/objective

Programme /activity/ objective	Total Expenditure for the entity (R'000)	Personnel Expenditure (R'000)	Personnel exp. as a % of total exp. (R'000)	No. of employees	Average personnel cost per employee (R'000)
Administration	128 581	70 425	25,28%	54	1 304
Nuclear Power Plants	47 603	32 175	11,55%	30	1 073
Nuclear Technology & NORM	47 684	43 801	15,72%	40	1 095
Regulatory Improvement and Technical Services	54 720	48 160	17,27%	49	983
Total	**278 588**	**194 561**	**69,84%**	**173**	**1 125**

Table 14: Personnel cost by salary band

Level	Personnel Expenditure (R'000)	% of personnel exp. to total personnel cost (R'000)	No. of employees	Average personnel cost per employee (R'000)
Top Management (JE Level 1)	2 743	1%	1	2 743
Senior Management (JE Level 3)	20 260	10%	10	2 026
Professional qualified (JE Level 4, 5, 6, 7)	155 824	80%	124	1 257
Skilled (JE Level 8, 9)	13 212	7%	23	574
Semi-skilled (JE Level 10)	971	1%	3	324
Unskilled	1 551	1%	12	129
Total	**194 561**	**100%**	**173**	**1 125**

Table 15: Performance Rewards

Programme //activity/objective	Performance rewards	Personnel Expenditure (R'000)	% of performance rewards to total personnel cost (R'000)
Top Management (JE Level 1)	330	2 743	12%
Senior Management (JE Level 3)	2 713	20 260	13%
Professional qualified (JE Level 4,5,6 ,7)	15 646	155 824	10%
Skilled (JE Level 8,9)	1 342	13 212	10%
Semi-skilled (JE Level 10)	80	971	8%
Interns and Learners	0	1551	0%
Total	**20 111**	**194 561**	**10%**

Table 16: Training Costs

Programme //activity/ objective	Personnel Expenditure (R'000)	Training Expenditure (R'000)	Training Expenditure as a % of Personnel Cost.	No. of employees trained	Avg training cost per employee
Training and Development	194 561	1 529	0,79%	166	9
Bursaries	194 561	796	0,41%	12	66
Bursaries (External-CNSS)	194 561	108	0,06%	1	108
Total	**194 561**	**2 432**	**1,25%**	**179**	**14**

Table 17: Employment and vacancies

Programme /activity/objective	2022/23 No. of Employees	2022/23 Approved Posts	2022/23 Vacancies	% of vacancies
Permanent employees	164	174	10	6%
Fixed term contracts	0	0	0	0%
Temporary employees	0	0	0	0%
Total	**173**	**183**	**10**	**6%**

Table 18: Employment and vacancies per employment Level

Programme /activity/objective	2022/23 No. of Employees	2022/23 Approved Posts	2022/23 Vacancies	% of vacancies
Top Management (JE1)	1	1	0	0%
Senior Management (JE3)	8	10	2	20%
Professional qualified (JE 4,5,6,7)	127	135	8	6%
Skilled (JE 8 & 9)	25	25	0	0%
Semi-skilled (JE 10)	3	3	0	0%
Total	**173**	**183**	**10**	**6% (overall)**

Table 19: Employment changes

Salary Band	Employment at beginning of period April 2022	External Appointments	Terminations	Employment at end of the period March
Top Management	1	0	1	1
Senior Management	10	0	1	8
Professional qualified	124	7	5	127
Skilled	22	2	0	25
Semi-skilled	3	0	0	3
Unskilled	0	0	0	0
Total	**160**	**9**	**7**	**164**

Table 20: Reasons for staff leaving

Reason	Number	% of total no. of staff leaving
Death	0	0%
Resignation	5	71%
Dismissal	0	0%
Retirement	2	29%
Ill-health	0	0%
Expiry of contract	0	0%
Other	0	0%
Total	**7**	

Table 21: Labour Relations: Misconduct and disciplinary action

Nature of disciplinary Action	Number
Verbal warning	0
Written warning	1
Final Written warning	1
Dismissal	0

Table 22: Equity targets and employment equity status

MALE

Levels	African		Coloured		Indian		White		Foreign National	
	Current	Target	Current	Target	Current	Target	Current	Target	Current	Target
Top Management	1	1	1	0	0	0	0	0	0	0
Senior Management	3	3	2	3	1	1	0	0	0	0
Professional qualified	12	56	4	8	1	3	6	7	1	1
Skilled	38	6	3	0	3	0	0	0	1	1
Semi-skilled	4	4	0	0	0	0	0	0	0	0
Unskilled	1	0	0	0	0	0	0	0	0	0
Total	**59**	**70**	**10**	**11**	**5**	**4**	**6**	**7**	**2**	**2**

FEMALE

Levels	African		Coloured		Indian		White		Foreign National	
	Current	Target	Current	Target	Current	Target	Current	Target	Current	Target
Top Management	2	0	0	0	1	0	0	0	0	0
Senior Management	1	2	0	0	0	1	0	0	0	0
Professional qualified	5	51	1	4	1	1	0	5	0	0
Skilled	42	14	2	1	0	1	3	2	1	1
Semi-skilled	15	4	0	0	0	0	3	0	0	0
Unskilled	2	0	0	0	0	0	0	0	0	0
Total	**67**	**71**	**3**	**5**	**2**	**2**	**6**	**7**	**1**	**1**

Disabled Staff

Levels	Male		Female	
	Current	Target	Current	Target
Top Management				
Senior Management				
Professional qualified	1	1		
Skilled	1	1	3	3
Semi-skilled				
Unskilled				

PART E: PFMA

compliance report

PART E: PFMA COMPLIANCE REPORT

1. Irregular, Fruitless and Wasteful Expenditure and Material Losses

1.1. Irregular expenditure

Table 23: Reconciliation of irregular expenditure

Description	2022/23 R'000	2021/22 R'000
Opening balance	267	245
Add: Irregular expenditure confirmed	-	22
Less: Irregular expenditure condoned	-	-
Less: Irregular expenditure not condoned and removed	-	-
Less: Irregular expenditure recoverable	-	-
Less: Irregular expenditure not recovered and written off	-	-
Closing balance	**267**	**267**

Table 24: Reconciling notes

Description	Number of Invoices	Consolidated Value
Irregular expenditure that was under assessment in 2022/23	-	-
Irregular expenditure that relates to 2021/22 and identified in 2022/23	-	-
Irregular expenditure for the current year	-	22
Total	**-**	**22**

Table 25: Details of current and previous year irregular expenditure (under assessment, determination, and investigation)

Description	2022/23 R'000	2021/22 R'000
Irregular expenditure under assessment	-	-
Irregular expenditure under determination	267	245
Irregular expenditure under investigation	-	-
Total	**267**	**245**

1.2. Fruitless and wasteful expenditure

Table 26: Reconciliation of fruitless and wasteful expenditure

Description	2022/23 R'000	2021/22 R'000
Opening balance	21	21
Add: Fruitless and wasteful expenditure confirmed	-	-
Less: Fruitless and wasteful expenditure written off	-	-
Less: Fruitless and wasteful expenditure recoverable	-	-
Closing balance	**21**	**21**

2. Late and/or Non-Payment of Suppliers

Table 27: Late and/or non-payment of suppliers

Description	2022/23 R'000	2021/22 R'000
Valid invoices received	2 408	R 79 496
Invoices paid within 30 days or agreed period	2 408	R 79 496
Invoices paid after 30 days or agreed period	N/A	N/A
Invoices older than 30 days or agreed period (*unpaid and without dispute*)	N/A	N/A
Invoices older than 30 days or agreed period (*unpaid and in dispute*)	N/A	N/A

3. Supply Chain Management

3.1. Procurement by other means

Table 28: Procurement by other means

Project description	Name of supplier	Type of procurement by other means	Contract number	Value of contract R'000
Themoluminescent Dosimeter-to monitor radiation exposure	SABS	Sole supplier	PO-0007053	658
Repairs & maintenance of Rielo AROS laboratory UPS	Standby System Arica	Sole supplier	PO-0007528	5
Calibration of LAB instruments	Geotron Systems	Sole supplier	PO-0007118	7
Supplying special industrial gas and liquid nitrogen to the NNR Laboratory	Air products	Single source	PO-0007093	166
Specialised Technical Scientific services	UCT	Sole supplier	PO-0007116	254
License for Jarrison time & attendance software	Jarrison Systems SA	Sole supplier	PO-0007120	214
Microsoft BI Pro license	Microsoft SA	Sole supplier	PO-0007158	77
Upgrade kit for the liquid scintillation analyzer	Perkinelmer SA	Sole supplier	PO-0007266	77
Software upgrade for laboratory system	Bio-Teknik	Sole supplier	PO-0007252	1 051
Renewal of SQL license	Blue turtle technologies	Sole supplier	PO-0007299	56
CaseWare license renewal	Adapt IT	Sole supplier	PO-0007294	87
Assessment and Accreditation of NNR laboratory	SANAS	Sole supplier	PO-0007379	57
Renewal of Abaqus license	Finite Element Analysis services	Sole supplier	PO-0007351	401
Annual license fee for SAGE 300 for payroll system	SAGE SA	Single Source	PO-0007434	139
Fire engineering services for Cape Town Construction	STAC Consulting Engineers	Single Source	PO-0007393	128
Repairs of lab fumes hoods	Baloyi Laboratories	Sole supplier	PO-0007493	36
Exhibition space	Africa energy indaba	Sole supplier	PO-0007446	62
Repairs and maintenance of the Solar Biotech Laboratory Fume hoods.	Baloyi Laboratories	Sole supplier	PO-0007602	386
Repairs and maintenance of the Laboratory refrigerator and freezer used to store biological samples	Labotech	Sole supplier	PO-0007602	2
Laboratory Chromatographic	Triskem	Sole Supplier	International supplier	380
Renewal of Dev.Express ASP.Net software subscription	Component Source	Sole Supplier	International supplier	13
Total				**4 256**

3.2. Contract variations and expansions

Table 29: Contract variations and expansions

Project description	Name of supplier	Contract modification type (Expansion or Variation)	Contract number	Original contract value	Value of previous contract expansion/s or variation/s (if applicable)	Value of current contract expansion or variation
				R'000	R'000	R'000
Emergency removal of documents & safe at the cape town office	Pickfords	Variations	PO-0007090	6	6	12
Provision of OHS services Cape Town Construction	Frontline SHEQ Consultants	Expansion	LR-AGM-16-03	132	N/A	35
Provision of lifts repairs maintenance and Ad-hoc emergency services	Thole Lifts	Expansion	LR-AGM-20-08	74	N/A	6
Provision of cleaning services Centurion, Cape town and NNR laboratory	Laborako holdings	Variation	LR-AGM-22-02	2	N/A	164
Total				**214**	**6**	**217**

PART F: REGULATION OF nuclear activities

PART F: REGULATION OF NUCLEAR ACTIVITIES

The section presents the report on health and safety related to workers, the public and the environment in relation to all sites regulated by the NNR for the 2022/23 reporting period.

1. Introduction

The NNR regulates the South African nuclear sector to protect people and the environment from the potential risks associated with ionising radiation as defined in the NNR Act (Act No. 47 of 1999). It is responsible for exercising regulatory control over the safety of nuclear installations, certain types of radioactive waste, irradiated nuclear fuel and the mining and processing of radioactive material. Facilities regulated by the NNR include the Koeberg Nuclear Power Station, various facilities on the South African Nuclear Energy Corporation's Pelindaba site, the Vaalputs radioactive waste repository and several mining and minerals processing facilities located throughout South Africa.

The NNR's core regulation of nuclear activities include authorisations, verification, compliance enforcement and reporting to the Board of Directors. These activities enable the NNR to provide assurance to stakeholders of the continuing compliance and safety performance of authorisation holders.

Compliance verification involves NNR inspectors undertaking regulatory inspections to confirm compliance with the conditions attached to the nuclear authorisation. The type and level of the NNR inspection is based on the complexity and magnitude of the potential nuclear safety risk associated with activities at regulated facilities.

In some instances, the NNR may also conduct independent testing and verification as required. Authorisation holders are required to report unusual events and occurrences to the NNR. The NNR considers occurrences, authorisation holder's performance and lessons learned when reviewing its annual compliance plans. The NNR conducts nuclear Regulatory Nuclear Emergency Exercises (RNEE) at nuclear installations to test the adequacy of the on-site and offsite emergency preparedness and response arrangements.

2. List of active nuclear Authorisations during the reporting period

Table 30: List of Authorisations

Authorisation No.	Var.	Nuclear facilities	Date issued
NIL-01	19	Koeberg Nuclear Power Station	7 March 2019
NIL-02	3	SAFARI-1 Research Reactor	21-May-12
NIL-03	1	P2700 Complex	4-May-12
NIL-04	0	Thabana Complex comprising the following facilities: • Thabana Pipe Store • Thabana Radioactive Waste Storage facility • Thabana Containerised Radioactive Waste • Storage facility CaF2 Ponds	30-Oct-09
NIL-05	1	HEU Vault-K0090	4-May-12
NIL-06	0	A-8 Decontamination Facility	11-May-10
NIL-07	1	Building A-West Drum Store	28-Mar-23
NIL-08	1	ELPROD in Building P-2500	4-May-12
NIL-09	1	UMET in Building P2600	28-Oct-11
NIL-10	1	Conversion Plant Complex	30-Mar-22
NIL-11	1	Area 14 Waste Management Complex	18-Apr-11
NIL-12	1	Quarantine Storage Facility	30-Mar-22
NIL-13	0	V-YB Pelindaba East Bus Shed Complex	30-Oct-09
NIL-14	0	Pelindaba East Evaporation Ponds Complex	30-Oct-09
NIL-15	1	Oil Purification Facility	30-Mar-22
NIL-16	1	Area 21 Storage Facility	28-Mar-23
NIL-17	1	BEVA K3 Storage Complex	30-Mar-22
NIL-18	1	Area 16 Complex	28-Mar-23
NIL-19	2	Area 40 Complex	28-Mar-23
NIL-20	1	Area 27 De-Heeling Facility	28-Mar-23
NIL-21	1	J-Building	30-Mar-22
NIL-22	1	D-Building	30-Mar-22
NIL-23	1	C-Building	30-Mar-22
NIL-24	1	Building P-2900	30-Mar-22
NIL-25	1	Building XB	30-Mar-22
NIL-26	1	BEVA Evaporation Ponds	28-Mar-23
NIL-27	1	Building P-280	28-Mar-23
NIL-28	1	Vaalputs National Radioactive Waste Disposal Facility	18-Apr-11

Authorisation No.	Var.	Nuclear facilities	Date issued
NIL-29	2	Area 26	28-Mar-23
NIL-30	1	E-Building	30-Mar-22
NIL-31	1	Dorbyl Camp	28-Mar-23
NIL-32	1	X Building	28-Mar-23
NIL-33	1	Building P-1500	28-Mar-23
NIL-34	1	YM Vacuum Workshop	30-Mar-22
NIL-35	1	V-H Building Laboratories	28-Mar-23
NIL-36	1	P-1900 Laboratories	28-Mar-23
NIL-37	1	P-1600 Laboratories	28-Mar-23
NIL-38	0	Fuel Development Laboratories Complex	16-Sep-10
NIL-39	0	NTP Radiochemicals Complex	6-Aug-10
NIL-40	1	Pelindaba Analytical Laboratories (PAL) in Building BEVA-E1	28-Mar-23
NIL-41	1	Liquid Effluent Treatment Facility Complex	24-Feb-11
NIL-42	1	B-1 Building Basement	30-Mar-22

COR No	Name of COR Holder	Category
COR-5	ARMgold/Harmony Freegold Joint Venture Company (Pty) Ltd (Tshepong, Matjhabeng & Bambani Operations)	Category 5
COR-6	ARMgold/Harmony Freegold Joint Venture Company (Pty) Ltd (Joel Operation)	Category 4
COR-7	African Rainbow Minerals Gold Limited (Welkom Operations)	Category 4
COR-10	Avgold Limited-Target Division	Category 4
COR-11	Gravelotte Mines Limited	Category 4
COR-13	MTC Demolition	Category 2
COR-16	Nuclear Fuels Corporation of South Africa (Pty) Limited	Category 3
COR-18	South Deep Joint Venture	Category 5
COR-20	Foskor Limited (Phalaborwa)	Category 4
COR-23	Steenkampskraal Monazite Mine (Pty) Limited	Category 2
COR-25	Eggerding SA (Pty) Limited	Category 2
COR-26	Richards Bay Iron and Titanium (Pty) Limited	Category 4
COR-27	Foskor Limited (Richards Bay)	Category 3
COR-28	Randfontein Estates Limited (Kusasaletheu)	Category 4
COR-30	Mine Waste Solutions (Pty) Limited	Category 4
COR-33	Rampete Metal Processors (Pty) Ltd	Category 2
COR-37	Harmony Gold Mining Company Limited (Free State Operations)	Category 5
COR-38	Omnia Phosphates (Pty) Ltd	Category 2
COR-40	ARMgold/Harmony Freegold Joint Venture Company (Pty) Ltd (St Helena Operations)	Category 4

COR No	Name of COR Holder	Category
COR-43	Tronox KZN Sands	Category 4
COR-50	Rappa Resources (Pty) Limited	Category 1
COR-53	East Rand Proprietary Mines Limited	Category 4
COR-57	Crown Gold Recoveries (Pty) Limited	Category 4
COR-58	Harmony Gold Mining Company Limited (Randfontein Operations)	Category 4
COR-59	Industrial Zone Limited	Category 4
COR-61	Sedex Minerals (Pty) Ltd	Category 1
COR-64	Potchefstroom Plastiek Herwinning BK	Category 1
COR-66	Mintek	Category 1
COR-69	Sibanye Gold Limited (Driefontein Operations)	Category 4
COR-70	Sibanye Gold Limited (Kloof Operation)	Category 5
COR-71	Sibanye Gold Limited (Beatrix Operation)	Category 5
COR-86	Glenover Phosphate Limited (Mining Site Operation)	Category 2
COR-87	Rand Refinery Limited	Category 1
COR-92	The Forensic Science Laboratory, SA Police	Category 1
COR-100	South African Airforce (SAAF),Department of Defence (DoD), RSA	Category 3
COR-101	The Reclamation Group (Pty) Ltd (Richards Bay)	Category 2
COR-104	South African Ports Operations - Dry Bulk Terminal Richards Bay (A division of Transnet Limited on Sage 300)	Category 4
COR-106	Mineral Sands Resources (Pty) Ltd	Category 4
COR-107	Vesuvius South Africa (Pty) Ltd	Category 2
COR-110	Geotron Systems (Pty) Ltd	Category 1
COR-111	Bosveld Phosphate (Pty) Ltd	Category 2
COR-112	Scaw Metals Group	Category 2
COR-116	Tswelopele (Beneficiation Operations)	Category 4
COR-118	GoldPlats Recovery Ltd	Category 1
COR-131	East Rand Beneficiation (Pty) Ltd	Category 1
COR-137	Manos Engineering (Pty) Ltd	Category 1
COR-138	Bright Refining (Pty) Ltd	Category 1
COR-140	China African Precious Metals (Pty) Ltd	Category 4
COR-141	Palabora Copper (Pty) Ltd	Category 4
COR-142	Pan African Resources-Evander Gold Mining	Category 4
COR-143	Zirco Roode Heuwel	Category 1
COR-144	Scamont Engineering (Pty) Ltd	Category 1
COR-148	Saldanha Dry Bulk Terminal CC	Category 2
COR-149	Cronimet RSA (Pty) Ltd	Category 2

COR No	Name of COR Holder	Category
COR-150	Minrite (Pty) Ltd	Category 2
COR-151	Covalent Water Company (Pty) Ltd	Category 4
COR-152	SGS South Africa (Pty) Ltd (Cooke Operations)	Category 1
COR-156	South African Nuclear Energy Corporation (Necsa); calibration pads	Category 1
COR-159	North West Reclaiming	Category 2
COR-160	Shiva Uranium One	Category 2
COR-164	Sulzer Pumps (SA) Limited	Category 1
COR-165	Uramin Mago Lukisa	Category 1
COR-178	Durban Container Terminal-Business Unit of SA Port Operations	Category 1
COR-180	SA Port Operations-Container Terminal Cape Town	Category 1
COR-181	Transnet Limited (SA Port Operations -Multipurpose Terminal,Saldanha bay)	Category 1
COR-182	Buffelsfontein Gold Mine Limited	Category 3
COR-190	Sibanye Gold-Ezulwini	Category 4
COR-195	Houlgon Uranium & Power (Pty) Ltd	Category 1
COR-197	Gold Reef City Theme Park	Category 1
COR-199	Uramin Mago Lukisa	Category 1
COR-201	A&S Mining Supplies	Category 1
COR-203	Cemo Pumps (Pty) Ltd	Category 1
COR-215	Margaret Water Company	Category 4
COR-216	Paddy's Pad 1183 (Pty) Ltd	Category 1
COR-217	Cango Caves Oudtshoorn Municipality	Category 1
COR-218	Grindrod Terminals (Pty) Limited	Category 2
COR-219	Sibanye Gold Eastern Operations (Pty) Ltd	Category 4
COR-225	New Kleinfontein Goldmine (Pty) Ltd	Category 4
COR-226	Rand Uranium (Pty) Ltd	Category 5
COR-228	Ergo Mining (Pty) Ltd	Category 4
COR-230	ALS Chemex South Africa (Pty) Ltd	Category 1
COR-236	Reclaim Invest 101 (Pty) Ltd	Category 2
COR-238	Tronox (Namakwa Sands Operations)	Category 4
COR-240	TANTUS TRADING 180 (PTY) Ltd	Category 2
COR-242	Enviro Mzingazi Gypsum (Pty) Ltd	Category 1
COR-246	NTP Logistics (Pty) Ltd	Category 2
COR-248	Foskor Zirconia (Pty) Ltd	Category 2
COR-252	Harmony Gold Mining Company Limited (South Operations)	Category 4
COR-253	Avgold Limited (North Operations)	Category 4

COR No	Name of COR Holder	Category
COR-258	SA Metal and Machinery Co (Pty) Ltd	Category 2
COR-260	African Mineral Standards (a division of Set Point Industrial Technology (Pty) Ltd)	Category 1
COR-261	North West University	Category 1
COR-263	Aklin Carbide (Pty) Ltd	Category 1
COR-264	Umhlathuze Imports and Exports	Category 2
COR-265	Tau Lekoa Gold Mining Company (Pty) Ltd	Category 4
COR-266	Nicolor (Pty) Ltd	Category 1
COR-268	Far East Gold Special Purposes Vehicle (Pty) Ltd	Category 2
COR-269	Newshelf 1186 (Pty) Ltd	Category 2
COR-271	Taurus Africa Scrap Metal	Category 2
COR-272	Sasol Gas Ltd	Category 1
COR-273	È&A Belt Sales CC	Category 2
COR-274	Freight Facilitators (Pty) Ltd	Category 2
COR-276	Aquatro Investments CC	Category 2
COR-277	Donnlee Pump Tech (Pty) Ltd	Category 1
COR-279	Harmony Moab Khotsong Operations (Pty) Ltd	Category 5
COR-281	DRD Gold Far West Gold Recoveries (Pty) Ltd	Category 4
COR-282	Kopanang Gold Mining Company (Pty) Ltd	Category 5
COR-283	Access World (South Africa) (Pty) Ltd	Category 1
COR-284	Ncamiso Trading (Pty) Ltd	Category 1
COR-286	LightDeepEarth (Pty) Ltd	Category 1
COR-288	Lemowe (Pty) Ltd	Category 1
COR-289	Bomamba Trading (Pty) Ltd	Category 2
COR-291	Nanoretech Processing (Pty) Ltd	Category 3
COR-292	EnviroServ Waste Management (Pty) Ltd	Category 2
COR-294	Golden Core Trade and Invest (Pty) Ltd	Category 5
COR-295	Deton Engineering (Pty) Ltd	Category 1
COR-296	Thermo Tec Mobile Air (Pty) Ltd	Category 1
COR-297	Anglo Corporate Services SA (Pty) Ltd-Technical Solutions	Category 1

3. Regulation of the Koeberg Nuclear Power Station

The KNPS is located 35km north of Cape Town on the West Coast of South Africa and is the only nuclear power station on the African continent. The KNPS is owned and operated by South Africa's national electricity supplier, Eskom. In terms of the NNR Act, nuclear installation licences contain conditions deemed necessary to ensure the protection of persons, property and the environment against nuclear damage.

The KNPS is operated in terms of the Nuclear Installation Licence, NIL-01 Variation 19 and associated 29 conditions, including specific licensing requirements and controls pertaining to:

CONDITIONS OF NIL-01 VARIATION 19			
1	General	16	Ageing Management and Long Term Operation
2	Nuclear Installation Description	17	Decommissioning
3	Demarcation of Site	18	Physical Security
4	Scope of Actions That May Be Undertaken	19	Dealing with Site
5	Radiological Protection	20	Authorised and Qualified Persons
6	Environmental Protection and Effluent Management	21	Quality and Safety Management
7	Radioactive Waste Management	22	Documents and Records
8	Emergency Planning and Preparedness	23	Organisational Changes

CONDITIONS OF NIL-01 VARIATION 19			
9	Medical Surveillance and Health Register	24	Safety Committees
10	Transport	25	Financial Security
11	Safety Assessment	26	Inspection Programme
12	Modification to Design of Plant	27	Events on Site
13	Design and Manufacturing of Components	28	Public Safety Information Forum
14	Limits and Conditions on Operations	29	Display of Installation License
15	Maintenance and In-Service Inspection		

Conditions of NIL-01 VARIATION 19

In terms of section 26(2) of the NNR Act, Eskom as the nuclear licence holder implements an inspection programme to ensure compliance with the conditions of the Nuclear Installation Licence. The NNR implements an independent system of compliance inspections to provide assurance of compliance with the conditions of the nuclear licence in terms of section 5(d) of the NNRA.

3.1. Occupational exposure to radiation

The NNR prescribes that occupational exposure of any worker must be controlled to ensure that the limits shown in the table below are not exceeded.

3.1.1. General regulatory dose limits

GENERAL REGULATORY DOSE LIMITS	
Maximum individual worker dose	A (maximum) effective dose of 50mSv in any single year
Average individual worker dose	An (average) effective of 20mSv per annum averaged over five consecutive years

Radiation exposure to workers at the KNPS remained subject to control by the Operational Radiation Protection Programme . The programme ensured that control within the annual individual dose limit was achieved. In addition, the programme also served to ensure that all doses are kept As Low As Reasonably Achievable (ALARA). The NNR review of the occupational exposure records for workers on the KNPS over the reporting period confirmed compliance to the regulatory requirements.

Figure 1: Highest individual occupational exposure (2018-2022)

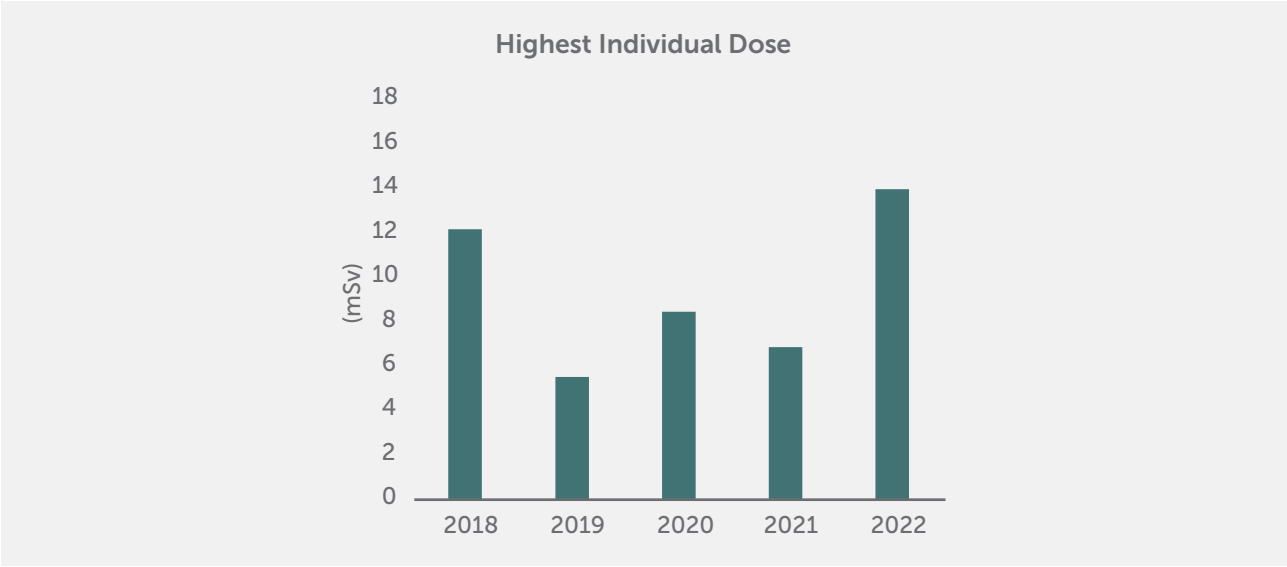
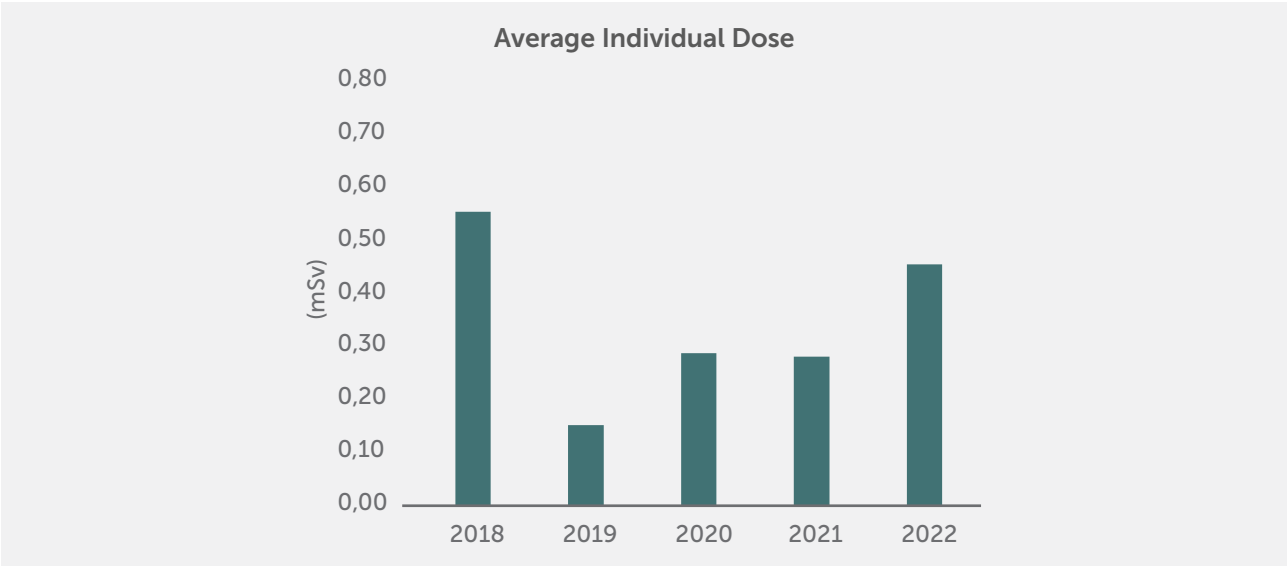


Figure 2: Average individual dose at KNPS (2018-2022)



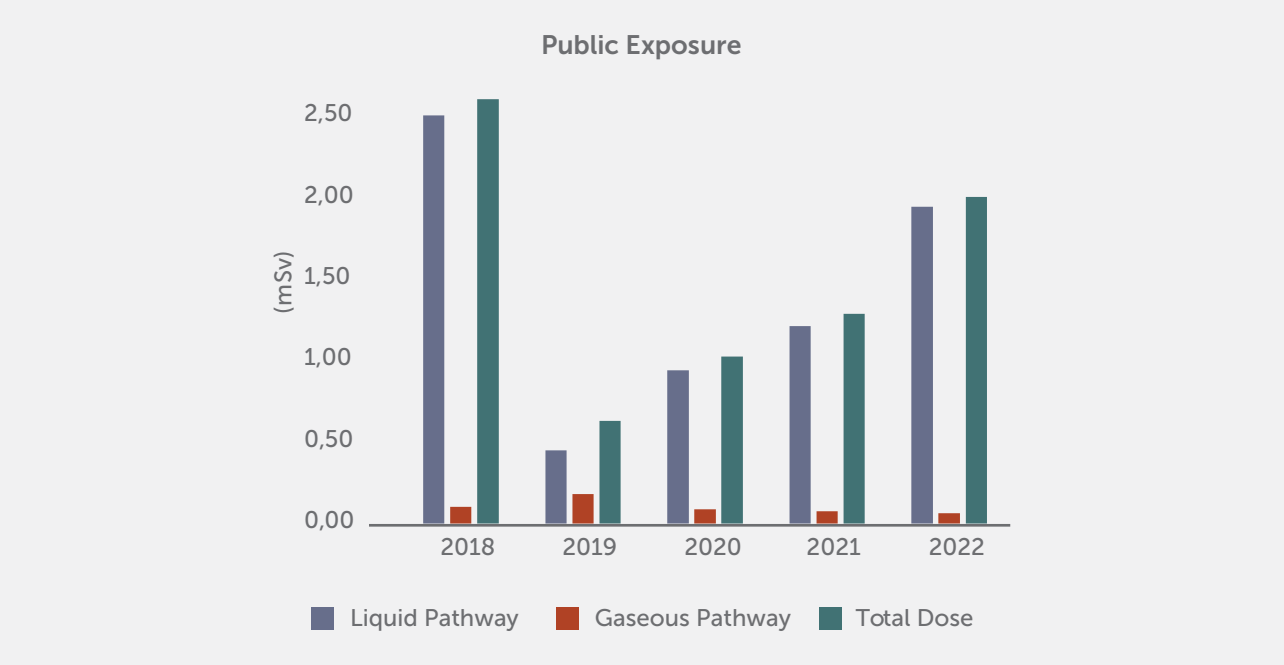
The average individual dose for the period 2018-2022 was below 20mSv per annum, attesting to the ALARA programme implemented by the licence holder. No individual exceeded the average individual dose averaged over five consecutive years as prescribed in the Safety Standards and Regulatory Practices regulation (SSRP).

3.2. Projected public exposure to radiation

In accordance with the conditions of the licence and the SSRP the public doses resulting from effluent discharges from the KNPS must comply with the dose constraint of 250μSv/a and the system of Annual Authorised Discharge Quantities (AADQs) applicable to the site. Condition 6 of NIL-01, Variation 19 requires that the licence holder must have control over the discharge of liquid and gaseous effluent and implement environmental monitoring programmes to monitor the impact on the environment and demonstrate compliance with the licence condition. The licence holder is required to submit a quarterly report to the NNR on effluent discharges to the environment. In addition to performing inspections as required by the licence holder's environmental programme, the NNR also conducts independent environmental sampling

and analyses. Based on the NNR overall assessment it can be concluded that the KNPS complied with the AADQs and the projected public doses resulting from the effluent releases (both liquid and gaseous) for the 2022 calendar year were within the dose constraint. There were no unauthorised effluent discharges and no safety concerns to the public living around the KNPS site.

Figure 3: Projected public dose from effluent discharges (2018-2022)



The public doses resulting from effluent discharges for the period 2018-2022 were below 250µSv/a and comply with the dose constraints prescribed by the SSRP regulations.

3.3. Nuclear safety

The licence holder's commitment to safety of the plant and operations were assessed and confirmed through NNR inspections. In 2022/23 a total of 41 NNR inspections were conducted at the KNPS. These included planned and reactive inspections during normal operations, outages as well as project related inspections. Identified weaknesses were addressed by Eskom and accepted by the NNR. An overview of the NNR's key safety assessments activities conducted for the KNPS during 2022/23 is presented as follows:

3.3.1. SGR

The manufacturing of all six Replacement Steam Generators (RSGs) were completed at Shanghai Electric Nuclear Power Equipment in China and shipped to the KNPS.

Preparatory work for installation including welding of the Hot Leg (C-Elbows) and Pre-Service Inspection was completed for five of the six RSGs. Preparatory work for the sixth RSG will be performed before installation in Unit 2. Three RSGs were installed on Unit 1 during outage 126 while the other three RSGs are stored at interim storage facilities on the KNPS site.

Regarding the incident where the lower assembly of PIF79 slipped-off its rollers, several engineering studies to determine the potential damage to the assembly were performed by Framatome and independently reviewed by Eskom, MPR Associates and Tractebel. The analysis reports from the studies were reviewed by the NNR and comments were raised with the licence holder. Eskom responded to the comments and several documents were updated. The acceptance of fit for purpose by the NNR is conditional on the performance of additional surveillance inspections after the installation of SG79 earmarked for Unit 2. Eskom provided the necessary information on the planned additional surveillance. The NNR completed its review of the consolidated RSG design package (Design B). This included the resolution of NNR comments on the ASME stress reports.

The Installation Safety Case was approved by the NNR. The NNR oversight during installation activities in Outage 126 was managed through annotated Inspection Plans which included relevant NNR intervention points. The three Original Steam Generators removed from Unit 1 during Outage 126, are currently stored in the OSGISF.

3.3.2. Spent fuel dry storage

Used nuclear fuel is currently stored in the spent fuel pools as well as dry storage casks located in the Cask Storage Building (CSB) on the KNPS site. The storage space in both spent fuel pools are almost fully utilised. Eskom has adopted a strategy to load the spent fuel in dry storage casks that will be stored in the CSB and a Transient Interim Storage Facility (TISF) on the KNPS site, subject to NNR licensing. Eskom received a positive record of decision from the Department of Environmental Affairs in 2017 for the construction of the TISF.

Eskom procured 14 HI-STAR 100 metal casks from the American based company Holtec. Manufacturing of the casks were completed and delivered to the KNPS in accordance with NNR requirements contained in RD-0034 and PP-0012.

Phase 2 of the Construction of the Cask Storage Building (CSB) was completed. The LCR-1984 was updated to allow for the storage of up to 12 HI-STAR 100 casks in the CSB in addition to the four CASTOR X28 casks. The next loading campaign of 1 HI-STAR 100 cask with spent fuel from Unit 1 is planned to take place before Outage 127.

Eskom is in the process of procuring an additional 11 casks from HOLTEC. Loss of inter-lid pressure was observed on one of the four GNS casks shortly after the calibration of the pressure transmitter in February 2022. The cask was identified to be possibly leaking Helium from the daily routine pressure/temp monitoring. Eskom implemented a daily monitoring regime. A Helium sniff test on the secondary lid bolting was performed and indicated that the cask secondary lid was leaking to the atmosphere, but not into the primary space of the cask. Helium sample testing indicated neither radioisotopes nor any activity were present. This demonstrated that the primary seal was not compromised. Eskom has sourced an Original Equipment Manufacturer (OEM) to perform preliminary helium leak tests in the CSB to identify probable cause. Part II-8.1.5(d) of the Safety Assessment Report requires that a defective cask be transferred to the Fuel Building for repairs within six months of the failure if required.

The NNR accepted Eskom's waiver request to extend the transfer of the cask to the fuel building for further investigation and repairs until the end of August 2023. The NNR reviewed and accepted Eskom's request to transfer the leaking cask from the CSB to the Fuel Building for further investigation and repair.

3.3.3. Application for the TISF

Eskom applied in May 2020 for the siting, construction, operation and decommissioning of the TISF on the KNPS site for the storage of additional dry storage casks for used nuclear fuel. The OSGISF is part of the TISF and is designed for the interim storage of six original steam generators after they have been removed from the plant.

Following the review and acceptance of the design and the safety case for the OSGISF, the NNR issued the nuclear installation licence, NIL-44, for construction of one of the OSGISF units with relevant conditions, and subject to items identified during the review process to be verified by the NNR during the construction phase. OSGISF Building One was completed and an independent verification was conducted by the NNR. Continuous oversight was performed through the attendance of the NNR witness points during construction.

Regarding the OSGISF Building Two, NIL-44 was varied in May 2022 to allow for the construction of the second OSGISF building. The construction of this second building has been completed and Eskom also applied for an Licence Change Request for operationalisation of the second OSGISF building.

The NNR also reviewed and accepted the updated shielding calculations for the OSGISF Buildings following a non-conformance report raised by Necsa after performing the shielding calculations. NIL-44 was subsequently varied to allow for the operationalisation of the OSGISF Building One building. The issue on the defects observed at the bottom of the roof of the OSGISF Unit Two Building needs to be resolved before the variation of NIL-44 for the operationalisation of the OSGISF Building Two. Eskom committed to addressing the defects.

The first TISF storage pad was planned to be fully installed by December 2023. The NNR requested Eskom to revise its schedule to allow for adequate time for internal regulatory processes to be concluded.

3.3.4. Long Term Operation (LTO)

The KNPS safety analysis report assumes a design life of 40 years which limits current operations to July 2024. Eskom has established a plant-life extension programme in preparation for the planned LTO. The LTO programme for the KNPS includes IAEA technical support and peer review prior to July 2024.

In January 2021, Eskom applied to the NNR to extend the operating life of the plant beyond the period currently justified in the licensing basis. The application includes the decoupling of the operational life of Unit 1 and Unit 2. The Minister published the Regulations on the Long-Term Operation of Nuclear Installations in March 2021. Eskom revised the application in line with the promulgated regulations and resubmitted the application in May 2021.

As prescribed in section 21(3) of the NNRA, the NNR directed the Eskom to serve notification of the application to stakeholders directly affected by the application and to publish notices in the Government Gazette and local community newspapers inviting members of the public to make representations to the NNR on health, safety and environmental issues connected with the application.

The NNR requested Eskom to make the Public Information Document and redacted Safety Case available to stakeholders using various communication channels and access points. The closing date for submitting written representations in the form of comments to the NNR was 16 March 2023.

The LTO safety case was submitted to the NNR on 21 July 2022. The NNR conducted an interim review of the LTO safety case, the final PSR report, a global assessment as well as the associated integrated implementation plan. The NNR provided comments for Eskom to address.

Eskom evaluated numerous components which are considered life limiting and conducted ageing analyses of these components to determine if they would remain suitable for their intended use during long-term operation. One of these components is the base isolation system that would perform a crucial role during seismic events. The NNR successfully reviewed the Elastomeric Aseismic Bearings submission and other deliverables committed as part of the LTO safety case during the reporting period.

3.3.5. RPVH Replacement Project

The Unit 2 Reactor Pressure Vessel Head (RPVH) and Control Rod Drive Mechanisms were successfully replaced during Outage 225 in the reporting period. The new RPVH was manufactured in accordance with NNR requirements stipulated in RD-0034, PP-0012 and ASME III, Version 2007, code by the OEM, Framatome.

3.4. Competency and sufficiency of the operator workforce to work safely

Condition 25.2 of NIL-01, Variation 19 requires that Eskom must provide proof that the required financial and human resources are available to ensure the safe operation of the plant. Eskom reports annually to the NNR on the adequacy of human resources and provides quarterly feedback at meetings as and when required. The NNR Inspectorate also monitors activities, including events on the site that may indicate either lack of resources or competency.

In 2022/23 Eskom demonstrated that it had plans and resources to maintain operational safety and not compromise the operations, including other safety related programmes such as maintenance, in service inspection and testing, radiation protection, etc. Based on monitoring events on the plant, the overall staffing and competency levels required for acceptable performance in work related to nuclear safety at the KNPS were found to be satisfactory during the reporting period.

3.5. Transport safety

As per Condition 10.1 of NIL-01, Variation 19, Transport of radioactive material or any equipment or objects contaminated with radioactive material off site must comply with the relevant provisions of the International Atomic Energy Agency Safety Standard Series, No. SSR-6 "Regulations for the Safe Transport of Radioactive Material".

There were no safety concerns related to the transport of radioactive material during the reporting period. The NNR processed a Nuclear Vessel Licence application for the transport of fresh nuclear fuel to the KNPS.

3.6. Radioactive waste safety

The KNPS is required to implement a radioactive waste management programme for the minimisation and safe management of radioactive waste on the site. The programme must:

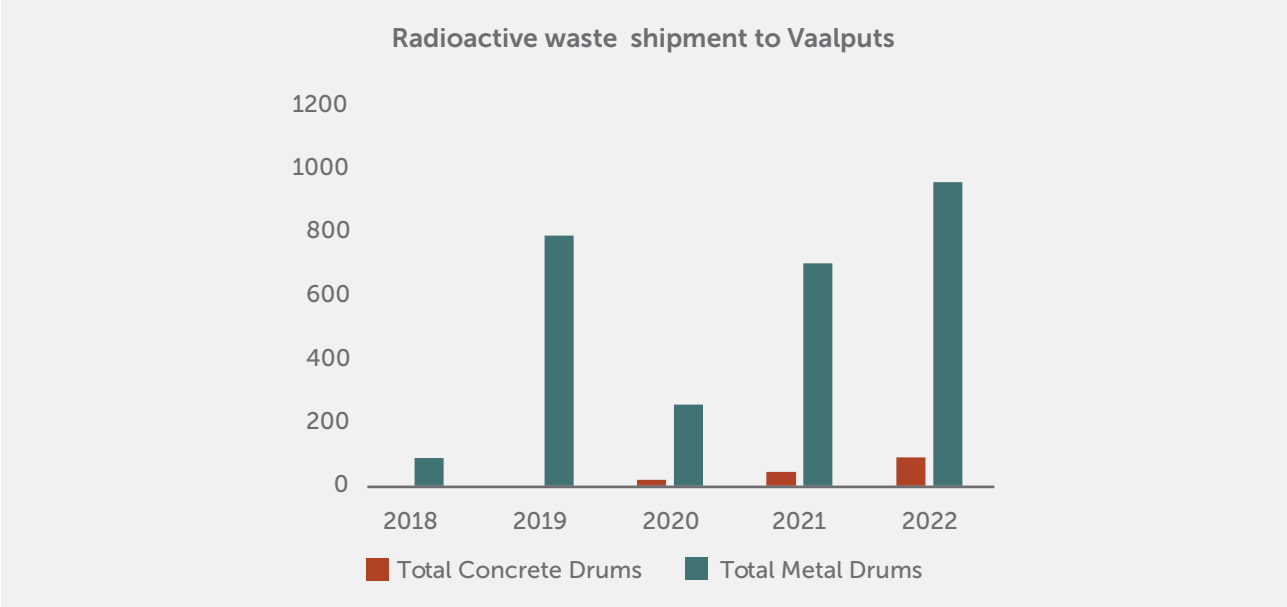
- Ensure the identification, quantification, characterisation and classification of any radioactive waste generated.
- Provide for the necessary steps leading to safe clearance, authorised discharge, disposal, reuse or recycling.
- Provide for the safe storage of radioactive waste between any waste management processes.

All waste package to be stored, transported and disposed must be approved by the NNR. The safety report for of each container design intended for storage or transport of radioactive material must be submitted for NNR

approval. The safety report must address predisposal, interim storage, transport and disposal requirements and demonstrate compliance with respective waste disposal acceptance criteria.

The Shipment of 210L metal drums containing trash and resins, and concrete drums containing NCW continued whilst the shipment of concrete drums containing filters restarted with NNR approval during the reporting period. The NNR approved the delivery of 89 concrete drums and 957 210L metal drums to Vaalputs during the 2022 calendar year (See figure 4).

Figure 4: Inventory of solid radioactive waste produced and drummed for calendar years 2018-2022



3.7. Environmental protection

Condition 6 of NIL-01, Variation 19 requires the licence holder to have in place and comply with an environmental monitoring programme accepted by the NNR. The environmental monitoring programme includes terrestrial, marine and direct radiation monitoring.

Samples were collected from indicator sites located within 15 km from Unit 1 Reactor, as well as from control sites which are located within 15 to 30 km from Unit 1 Reactor or in areas not influenced by plant discharges.

The KNPS's radiological effluent discharge quantities for 2022 were found to be lower than the quantitative limits approved by the NNR. The NNR independent regimes confirmed that there were no safety concerns regarding the environment around the KNPS during the reporting period.

3.8. Nuclear emergency planning and preparedness

Section 5(f) of the NNR Act, mandates the NNR to ensure that provision for nuclear emergency planning are in place. The effectiveness of the Nuclear Emergency plan is verified through the conduct of a periodic RNEE.

On 4 November 2022, the NNR conducted a RNEE at the KNPS. The aim of the RNEE was to test the adequacy of the on-site and off-site plans, procedures and preparedness arrangements for responding to a radiological emergency at the KNPS. The NNR identified 14 findings which have been included in Eskom's corrective action plan. Based on the overall exercise results the NNR is satisfied that the responses are adequate to provide reasonable assurance that appropriate measures can be taken to protect the health and safety of the public in the event of a radiological emergency at the KNPS.

3.9. Physical security

The NNR and the National Key Points' Security functionaries have responsibilities regarding physical security at the KNPS. In 2022/23 the NNR conducted all planned inspections on security. As part of the KNPS Periodic Safety Review, Eskom assessed the conditions of the security infrastructure at KNPS and submitted the periodic nuclear security review report to the NNR for review and acceptance.

3.10. Safety of sealed radioactive sources

The safety of sealed radioactive sources on the KNPS site was inspected and found to be in compliance with regulatory requirements. There were no concerns regarding the safety of the sealed radioactive sources during the reporting period.

3.11. Nuclear incidents/accidents reported

Any occurrence or succession of occurrences having the same origin and resulting in an unintended/ unauthorised exposure to radiation or release of radioactive material, which is capable of giving rise to an effective dose in excess of 1 mSv to the public off-site in a year, or in excess of 50 mSv to any individual on site received essentially at the time of the event, is regarded as a nuclear accident.

While any unintended event which is reasonably capable of giving rise to an effective dose equal to or in excess of 0,1 mSv to the public received essentially at the time of the event, or the unintended spread of radioactive contamination or exposure to radiation, which could reasonably give rise to an effective dose in excess of 20 mSv to any individual on site received essentially at the time of the event, or significant failure of safety provisions, is regarded as a nuclear incident. Further, regulation 6.3 of the SSRP and Condition 27.1 of NIL-01, Variation 19, requires that the holder of a nuclear authorisation must immediately inform the Regulator when a nuclear accident occurs or an incident has arisen or is expected to occur or arise, as the case may be, and shall provide such information as may be required.

There were no nuclear incidents or accidents, as defined in the NNR Act, reported during the reporting period. The NNR was satisfied with the processes implemented at the KNPS relating to events/occurrences.

The NNR was notified of the following events at KNPS during the reporting period:

a) The KNPS Unit 2 Bank SA Rod F12 slip resulting in reactor trip

On 3 September 2022, during a routine periodic test, rod F12 (sub-bank SA2) slipped causing a reactor scram on negative flux rate. The coil current and acoustic assessments confirmed that the cause for the rod issues experienced is due to mechanical resistance of the movement of the lift pole resulting in the moveable and stationary grippers not latching the rod correctly. This supported the engineering position based on findings by international OE. The licence holder implemented a regime of cycling the rods during operation in order support returning unit 2 to full power operation. Ongoing monitoring of coil currents during rod movements ensures that the risk of rod mis-alignment issues is minimised.

Throughout all the rod slip events experienced at the KNPS, the safety function of the RGL system has not been challenged as the rod drop function remained unaffected as the current plausible failure mode has no impact on the ability of the RGL system to drop the rods into the core when required.

There were no nuclear or occupational health safety concerns or consequences due to this event.

b) Unit 2 turbine trip

On 16 February 2023, an alarm on Unit 2 was sustained on the turbine control system. On 17 February 2023, the KNPS Maintenance group was allowed to replace a faulty module on the system. While this maintenance intervention took place, Unit 2 turbine tripped. The reactor was successfully stabilised at 39% power as per the design of the plant. The replacement of the faulty module on the system was completed and the Unit synchronised to the grid on 18 February 2023.

There were no nuclear or occupational health safety concerns or consequences due to this event. Learning points relates to how to respond during online module replacements and incorporate these learnings into working procedures.

c) Unusual Event declared for Public Notification System siren 003 sounding spuriously

During the weekly public notification system (off-site siren system) quiet test one siren (Siren 003 at Van Riebeek Strand Primary School) sounded with an evacuation message. This caused panic in the surrounding public and caused some members of the public, including the primary school, to start evacuating. The evacuation message spread quickly via social media, causing panic in the rest of Melkbosstrand and further out. To deal with the consequences of this, an Unusual Event was declared and the Emergency Control Centre was activated. Media briefings were issued, and notifications were made to relevant organisations, including South Africa Police Service, City of Cape Town Disaster Risk Management and the NNR. Two sets of public address announcements were made on the other sirens in Melkbosstrand to inform the public that the siren activation was inadvertent and that there is not an emergency at the KNPS. The investigation indicated that the siren was malfunctioning due to water ingress. The siren was consequently taken out of service and the radio, and an electronic card were removed. No further testing was done on the sirens.

3.12. Regulatory compliance inspections and audits

In order to verify the degree of compliance with the conditions of authorisation, the NNR undertakes independent inspections and audits. During the reporting period the NNR conducted 41 inspections at the KNPS as part of its compliance assurance activities.

3.13. Regulatory warnings and directives to stop work

No warnings or directives to stop work were issued during the reporting period.

3.14. Appeals to the CEO

No appeals were lodged with the CEO during the reporting period.

4. Regulation of nuclear facilities and activities on the South African Nuclear Energy Corporation (Necsa) Pelindaba site

In terms of Section 26(2) of the National Nuclear Regulator Act, Act 47 of 1999, Necsa as the nuclear authorisation holder implements an inspection programme to ensure compliance with the conditions of Nuclear Installation Licences. The NNR implements an independent system of compliance inspections to provide assurance of compliance with the conditions of the nuclear authorisations in terms of section 5(d) of the NNR Act.

The nuclear facilities on the Necsa Pelindaba site are diverse and include:

- The SAFARI-1 Research Reactor.
- Various fuel cycle facilities involved in the manufacture of nuclear fuel for the SAFARI-1 Research Reactor.
- Analytical Laboratories
- A Liquid Effluent Treatment Facility and a variety of radioactive waste treatment and storage facilities.
- An array of facilities in various stages of decommissioning.

These facilities are authorised in terms of Nuclear Installation Licences NIL-02 through NIL-27 and NIL-29 through NIL-42 as well as COR-156. In accordance with the conditions of the authorisation, Necsa is required to ensure that arrangements, acceptable to the NNR, are established and implemented with respect to the following:

CONDITIONS OF NIL-02 THROUGH NIL-27 AND NIL-29 THROUGH NIL 42 AND COR-156			
1	Plant/Facility description and configuration	16	Appointment of Duly Authorised and Suitably Qualified and Experienced Persons
2	Scope of Activities that may be undertaken	17	Safety Committees
3	Demarcation of Site Boundary, Site Plans, Designs and Specifications	18	Safety Documentation
4	Physical Security	19	Quality and Safety Management
5	Transport of Radioactive Material	20	Modification to Design of Existing Plant or Facility
6	Restrictions on Dealing with the Site	21	Construction and Commissioning of Plant or Process
7	Radiological Protection	22	Limits and Conditions of Operation
8	Medical Surveillance and Health Register	23	Examination, Inspection, Maintenance and Testing
9	Radioactive Waste Management	24	Decommissioning
10	Records Management and Reporting	25	Management of Organisational Change
11	Management and Reporting of Events (including Incidents or Accidents) on the Site	26	Financial Security for Nuclear Liability
12	Emergency Planning and Preparedness	27	Public safety Information Forum
13	Environmental Protection	28	Self-Inspection Programme to ensure compliance with Conditions of Authorisation
14	Effluent Management	29	Display of the Licence
15	Environmental Monitoring		

4.1. Occupation Exposure to Radiation

The NNR prescribes that occupational exposure of any worker should be controlled to ensure that the limits shown in the table below are not exceeded.

GENERAL REGULATORY DOSE LIMITS	
Maximum individual worker dose	A (maximum) effective dose of 50mSv in any single year
Average individual worker dose	An (average) effective of 20mSv per annum averaged over five consecutive years

Radiation exposure to workers at the Pelindaba site is subject to control through the individual facility specific Operational Radiation Protection Programme and the corporatewide Process Based Licensing (SHEQ-INS) system. In addition, Necsa has committed to implementing an ALARA Goal of 4mSv/a. Reporting of worker doses is undertaken on a quarterly basis and includes an evaluation of the doses over a rolling 12-month period. NNR review of the occupational exposure records for workers on the Pelindaba site over the reporting period confirmed compliance to the regulatory requirements.

Figure 5: The average effective dose at the Pelindaba site (2018-2022)

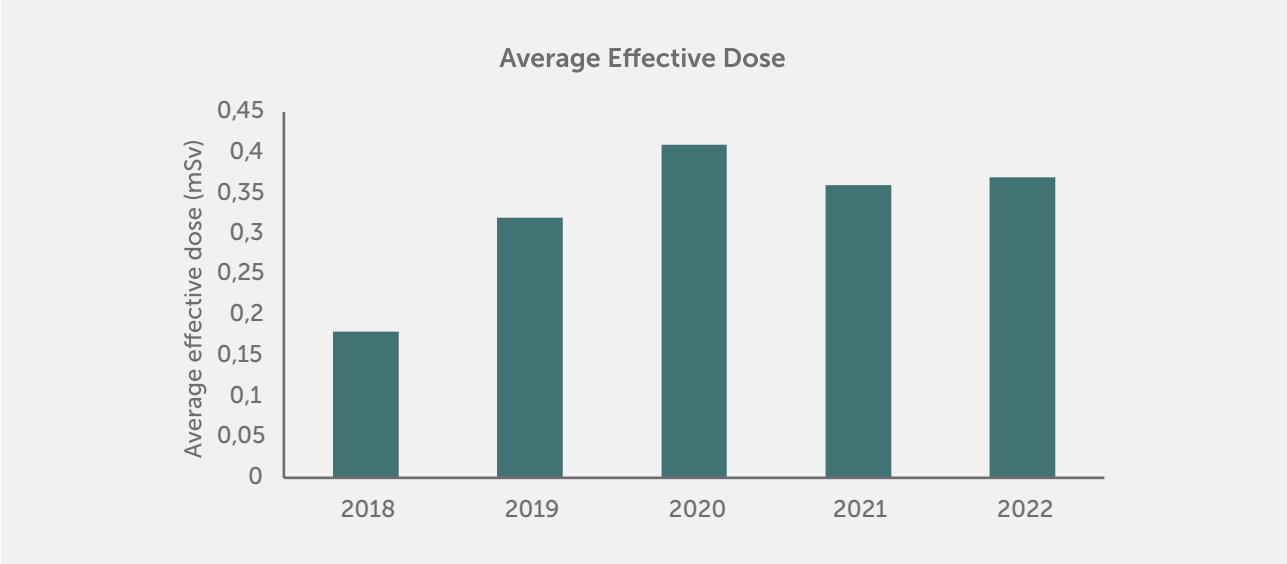
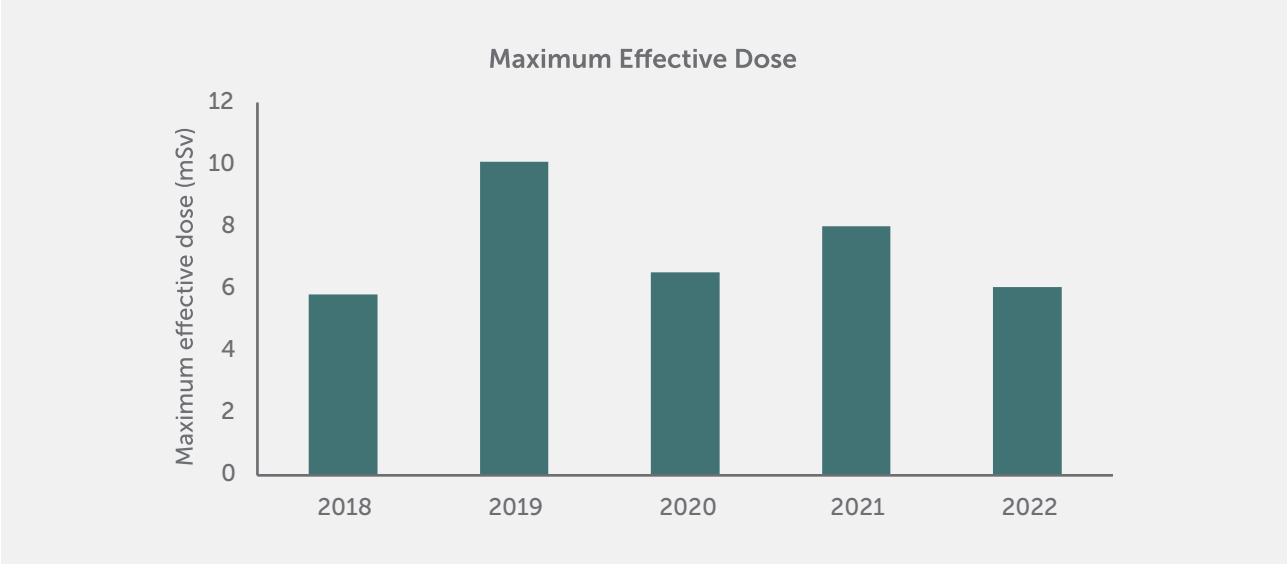


Figure 6: Maximum individual dose at the Pelindaba site (2018-2022)



The average effective dose and the maximum individual doses incurred by Necsa workers during the past five years are shown in figures 5 and 6 respectively.

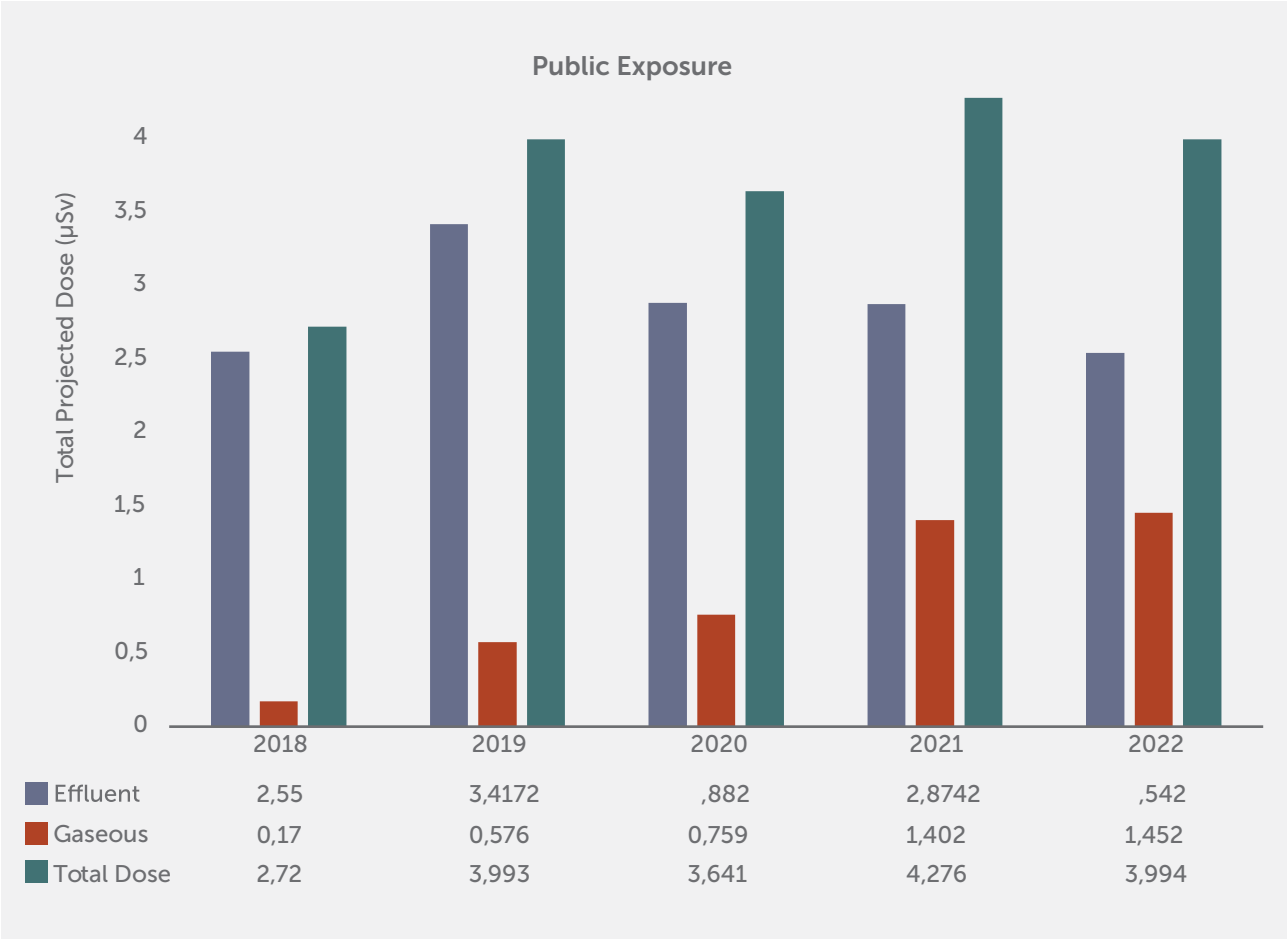
4.2. Projected Public Exposure

The conditions of authorisation and the SSRP Regulations require that public doses resulting from effluent discharges from the Necsa Pelindaba site must comply with the dose constraint of 250μSv per annum and the system of Annual Allowable Discharge Quantities (AADQs) applicable to the site. The system of AADQs limits the total quantity of individual radionuclides that may be released as effluent via the liquid and airborne pathways in a given period.

Necsa submits quarterly reports on the effluent releases and projected public doses from said releases to the NNR. Further, the projection of public dose is presented to the public at the quarterly Public Safety Information Forum (PSIF) meetings.

During the reporting period, Necsa demonstrated compliance with the AADQs and prescribed public dose limit. The projected public doses, resulting from the liquid and gaseous effluent releases during the past five years is as shown in Figure 7.

Figure 7: Projected public exposure from liquid and gaseous pathways for Necsa Pelindaba site (2018-2022)



4.3. Nuclear Safety

4.3.1. Necsa's response to the COVID-19 Pandemic

Following the declaration of the COVID-19 pandemic as a national disaster on 15 March 2020, the Necsa executive management convened and established a COVID-19 Disaster Management Action Plan. The Action plan was championed by a Disaster Management Task Team comprising:

- Necsa Group Executive Nuclear Compliance Services.
- Necsa Group Executive Human Resources and Real Estate and Asset Management.
- Pelchem Group Executive Compliance.
- NTP Chief Nuclear Officer.

Throughout the reporting period, Necsa provided updates on COVID-19 matters via the JPC Forum and the Licensing and Compliance Management Committee. Some Necsa facilities have returned to 100% operation, while others are only operated on an as needed basis. Those Necsa employees that were able to work from home were doing so. With the return to service of more facilities, aligned with reduction in lockdown

restriction, more workers returned to site. Operations at Necsa Pelindaba and Vaalputs continued with full implementation of compliance requirements.

The NNR has not received the updated report on COVID-19 statistic for the last three quarters of the reporting period. As of 1 June 2022, the Necsa site has had 447 reported cases of COVID-19 positive employees of which none had been confirmed as workplace related transmissions. Of these 447 cases, 436 employees recovered and 11 passed away.

4.3.2. Safety Culture

Following regulatory concerns at the NTP Radiochemicals Facility, Necsa committed to hosting an independent review of their organisational safety culture. The IAEA was requested, by Necsa, to conduct an Independent Safety Culture Assessment (ISCA) Review.

The purpose of an IAEA ISCA review is to provide independent advice and assistance to Member States in enhancing the safety culture of a nuclear facility. The aim of the review is to further develop and strengthen the organisation's culture to ensure that nuclear safety is the priority of all its members. The reviews give the requesting organisation the opportunity to better understand and fully address root causes of safety culture issues once they have been identified. The IAEA ISCA review at the Necsa Pelindaba site was conducted from 6-17 August 2018.

Following the ISCA Review, Necsa was required to develop an action plan to address the recommendations and suggestions in the report. During the reporting period, the NNR reviewed Necsa's response to previous NNR comments on their submission of the Safety Enhancement Plan. The outcomes of the review indicated that Necsa has not satisfactorily addressed the NNR comment. The NNR requested Necsa to submit:

- A report detailing the outcome of the self-assessment.
- An action plan detailing the corrective and preventative measures to address the deficiencies identified during the self-assessment.

4.3.3. Review of the Current Conditions of Authorisation

The conditions of authorisation included in Part A of the nuclear installation licences issued for the nuclear facilities on the Necsa Pelindaba site and the Vaalputs National Radioactive Waste Disposal Facility were originally formulated in 2005. A review of the conditions of authorisation was conducted in 2009, as part of the NNR Self-Assessment Project. The results of these updates to the conditions were implemented in the nuclear installation licences issued in the period from February 2009 to November 2011.

In subsequent years, valuable insights were gathered during the self-assessment process in preparation for the 2016 IAEA IRRS mission to South Africa. Further, lessons and insights were learnt from:

- The findings contained in the 2016 IAEA IRRS mission to South Africa.
- The reporting requirements under both the CNS and the JC.
- Participation of NNR staff in various IAEA IRRS missions including the missions to Australia, Belgium, Canada, Finland, Japan and the Netherlands.
- Participation of NNR staff in the Artemis mission to Poland and the Joint IRRS/Artemis mission to Spain.
- The development and updates to various IAEA Safety Standards since 2010, in particular the:
  - GSR PART 1, Governmental, Legal and Regulatory Framework for Safety

- GSR PART 2, Leadership and Management for Safety
- GSR PART 3, Radiation Protection and Safety of Radiation Sources
- GSR PART 4, Safety Assessment for Facilities and Activities
- GSR PART 6, Decommissioning of Facilities
- SSR-1, Site Evaluation for Nuclear Facilities
- SSR-3, Safety of Research Reactors
- SSR-4, Safety of Nuclear Fuel Cycle Facilities

Based on the above, in addition to the lessons learnt from the regulation of the Necsa facilities and Vaalputs, the current conditions of authorisation were reviewed, and proposed changes were identified. Necsa was consulted on the proposed amendments and an online workshop between the NNR and Necsa was held to provide clarification on the proposed amendments. Necsa was also requested to review the current descriptions under condition 2 and condition 3 of the respective Nuclear Installation Licences and confirm the accuracy of the content.

A phased review of all 41 Licences issued to Necsa was agreed with Necsa. In line with this agreement 12 nuclear installation licences were amended in 2021-22 financial year, 15 nuclear installation licences were amended in 2022/23 financial year, and the remaining nuclear installation licences will be amended over the 2023/24 financial year. The latest batch of issued licences constitutes: "to "Nuclear authorisations amended in 2022/23 were:

- NIL-07 (Building A-West Drum Store)
- NIL-16 (Area 21 Storage Facility)
- NIL-18 (Area 16 Complex)
- NIL-19 (Area 40 Complex)
- NIL-20 (Area 27 De-Heeling Facility)
- NIL-26 (BEVA Evaporation Ponds)
- NIL-27 (Building P-2800)
- NIL-29 (Area 26)
- NIL-31 (Dorbyl Camp)
- NIL-32 (X Building)
- NIL-33 (Building P-1500)
- NIL-35 (V-H Building Laboratories)
- NIL-36 (P-1900 Laboratories)
- NIL-37 (P-1600 Laboratories)
- NIL-40 (Pelindaba Analytical Laboratories (PAL) in Building BEVA-E1)

4.3.4. Process Based Licence Documents

Process Based Licensing (PBL) is the process where the authorisation holder has the responsibility for technical details relating to nuclear safety and more emphasis is placed on the licence holder to ensure that appropriate processes are in place to comply with the regulatory requirements. Application of PBL at Necsa run facilities commenced in the 2002-03 financial year and the system comprises more than 200 Necsa designed documents, dealing with the full spectrum of process areas. These processes include:

- Identification of applicable fundamental nuclear and radiological safety standards.
- Identification of the basis for authorisation, change control in respect of modification, processes to update and maintain safety case and relevant operational programmes.
- Identification of nuclear and radiological safety requirements necessary to underpin the safety case and processes needed to maintain these in line with the safety case.
- Monitoring and enforcement of compliance with the requirements identified above.

During the reporting period, the NNR reviewed 159 submissions. The following are sampled submissions:

- Necsa Requirements for Access Control to Necsa Sites and its Facilities.
- Necsa Requirements for Administrative Control Measures for Radiation Workers.
- Necsa Requirements for Requirements for the Classification and Authorisation of Laboratories.
- Necsa Requirements for Safety, Health, and Environmental Policy.
- Necsa Requirements for Quality Policy.
- Necsa Requirements for Safety Culture Enhancement Processl
- Necsa Requirements for Off-Site Transport of Radioactive Material or Contaminated Equipment.
- Necsa Requirements for Management of SHE and Security Events.
- Necsa Requirements for Necsa's Compliance Inspection Programme .
- Necsa Requirements for Control Over Radioactive Sources.
- Necsa Requirements for Security Planning.

4.3.5. SAFARI-1 Research Reactor

The SAFARI-1 Research Reactor is owned and operated by Necsa at their facility at the Pelindaba site and has been in operation since 1965. It is utilised mainly for the commercial production of medical and industrial isotopes, activation analyses, material modification (such as the neutron transmutation doping of silicon for the semi-conductor industry) and numerous support services such as neutron radiography and neutron diffraction, which are of both industrial and academic interest.

Ageing Management at SAFARI-1

In the interest of ensuring that SAFARI-1 continues safe operation of the plant going forward an assessment is being performed of all the safety related Systems, Structures and Components (SSC) to establish the status of health of SAFARI-1 explicitly and objectively as a basis for continuous safe operations, developments, maintenance, and ageing management processes. The facility has developed an ageing management programme for continuation operation beyond 2020. As part of Ageing Management SAFARI has carried out upgrade projects and made submissions related to the following projects.

Gamma Safety Channels Upgrade Project

During the reporting period, the NNR reviewed the Necsa submissions being installation and commission report for Gamma Safety channel. Following the review, the NNR accepted the Necsa report.

Justification for a Revised Accumulated Power Limit on the Safari-1 Reactor Vessel Lifetime

During the reporting period, the NNR reviewed the Necsa responses addressing of the previous NNR comments on the commissioning of the upgraded Area Monitoring System. The NNR review concluded that Necsa had satisfactorily addressed the previous NNR comments. Consequently, the NNR granted authorisation for the routine operation of the upgraded area monitoring system.

Overall Summary Report for Phases 1-3 of the SAFARI-1 Plant Health Assessment

The NNR received and reviewed the Necsa responses to previous NNR comments linked to the continued assessment of the SAFARI-1 reactor vessel, pool liner, and biological shield. The review outcome concluded that Necsa has satisfactorily addressed the NNR previous comments. Further, Necsa was required to update and resubmit the SAFARI-1 In-Service Inspection Plan in line with the responses submitted and confirm the action plan to address the recommendations from the independent assessment conducted on the reactor vessel assembly, pool liner and biological shield.

SAFARI-1 Alternate Fuel Plate Supplier

SAFARI-1 currently makes use of Low Enriched Uranium (LEU) Fuel Assemblies and Control Rod Assemblies assembled at the ELPROD Facility on the Necsa site, using fuel plates that are procured from France. To enhance security of fuel supply, Necsa has undertaken to qualify an alternate supplier of fuel plates being Novosibirsk Chemical Concentrates Plant, in Russia.

During the reporting period, SAFARI-1 conducted on the desktop audit to re-qualify ELPROD within the MTR Fuel Department on selected requirements, which includes, general and quality assurance requirements applicable to the supplier as well as confirmation of pre-evaluation requirements and a supplier qualification for the manufacture of the LTA qualification batch. The NNR reviewed and commented on submissions related to:

- Audit report for the supplier qualification of ELPROD as a manufacturer of SAFARI-1 SSFE and SCRA.
- Supplier qualification certificate for ELPROD.
- Close out report on findings from the audit report for ELP.

The review outcomes, as of the end of the financial year, concluded that Necsa did not satisfactorily address the NNR comments.

Appointment of Nuclear Facility Manager (NFM)

During the reporting period, the NNR reviewed Necsa appointment of Nuclear Facility Manager for SAFARI-1 Research Reactor. The outcome of the review revealed that Necsa needed to provide confirmation if such an appointment was approved by the Necsa Group CEO. Necsa is required to provide such information for NNR to accept the appointment.

On-Site Transfer of Spent Fuel From SAFARI-1 to Thabana Pipestore

During the reporting period, the NNR reviewed Necsa's request for the on-site transfer of 32 SAFARI-1 spent fuel assemblies from SAFARI-1 to the Thabana Pipe Storage Facility using the SAFARI-1 Research Reactor Spent Fuel Transfer Cask, authorised under Certificate of Package Design Approval No. ZA/NNR/1010/B(U) F-96. The review outcome concluded that Necsa complied with the conditions for transfer, hence the NNR approved the request.

SAFARI-1 Emergency Procedure

During the reporting period, the NNR received Necsa's responses to previous NNR comments on the SAFARI-1 Building emergency Plan. The outcome of the review confirmed that Necsa did satisfactorily address the NNR comments. The NNR accepted the document.

Terms of Reference for the Nuclear Safety Committee for NLM and LEMS.

During the reporting period, the NNR reviewed the Terms of Reference of the Nuclear Safety Committee for all the facilities under Nuclear Liability Management and Liquid Effluent Management Services. Following the review, the NNR identified comments for Necsa to address.

Multi-Purpose Reactor (MPR).

Necsa has started a process of licensing a Multipurpose Research Reactor (MPR) which will replace the ageing SAFARI-1 Research Reactor. The NNR has not as yes received a formal licence application from Necsa. To-date, the NNR has received a Letter of Intent indicating Necsa's intention to apply for a nuclear installation license as well as the Overarching Licensing strategy. The NNR reviewed the Overarching Licensing strategy and submitted Necsa comments to address.

During the reporting period, the NNR received the following documents:

- Revised Overarching Licensing strategy addressing the NNR comments.
- MPR Quality Plan.
- MPR Project Management Plan.

Following the review of the above-mentioned Necsa documents, the NNR found that Necsa did not satisfactorily address the NNR comments on the Overarching Licensing Strategy and identified comments of the other two documents. Thus, the NNR issued Necsa comments to address.

4.4. Transport Safety

4.4.1. On-site Transfer of LEU Spent Fuel from SAFARI-1 to the Thabana Complex

During the reporting period, the NNR reviewed Necsa's request for the on-site transfer of 32 SAFARI-1 spent fuel assemblies from SAFARI-1 to Thabana Pipe Storage Facility using the SAFARI-1 Research Reactor Spent Fuel Transfer Cask, authorised under Certificate of Package Design Approval No. ZA/NNR/1010/B(U)F-96. The review outcome concluded that Necsa complied with the conditions for transfer, hence the NNR approved the Necsa request.

4.4.2. Long-Term Storage (LTS) Container Transfer Flask Project

During the reporting period, the NNR reviewed the Necsa/NTP reports outlining the audits conducted for evaluation of Getinge La-Calhene and Necsa Nuclear Manufacturing for the supply of the LTS Container Transfer Flask. The NNR identified comments for Necsa/NTP to address.

4.4.3. Validation and Re-Validation of Transport Packages

In accordance with the provisions of Section 7 of the National Nuclear Regulator Act, Act 47 of 1999, the NNR acts as the competent authority in South Africa in compliance with International Atomic Energy Agency's regulations for the safe transport of radioactive material. In line with this mandate, the NNR, during the reporting period, reviewed and re-certified the package design approvals for the following transport containers as having met the regulatory requirements for Type B(U) packages as described in the International Atomic Energy Agency Safety Standards Series No. SSR-6, Regulations for the Safe Transport of Radioactive Material, 2018 Edition:

Certificate of Package Design Approval	Transport Container	Authorised for	Effective Date	Expiry Date
ZA/NNR 1005/ B(U)-96 (Rev 05)	Beatrice Transport Package	Transport of MoI-99 in solid and liquid, I-131 in liquid form, and Ir-192 in solid form within South Africa and internationally including Argentina, Canada, the United Kingdom, and the United States of America using all modes of transport.	2 January 2023	3 January 2025
ZA/NNR 1008/ B(U)-96 (Rev 05)	Jane Transport Package	Transport of MoI-99 in solid and liquid, I-131 in solid and liquid form, and P-32 in solid and liquid form within South Africa and internationally including Argentina, Canada, the United Kingdom, and the United States of America using all modes of transport.	2 January 2023	3 January 2025

Further, during the reporting period, the NNR reviewed the Necsa submission being the safety case for metallic Waste C2 Concrete Waste Package to carry SAFARI-1 pool waste. Following the review, the NNR identified the comments for Necsa to address.

4.4.4. Handling Instruction for Transport Packages

Handling instructions prescribe information necessary to safely handle, load, unload, ship and maintain the transport packages during transport activities. Following the outcome of the review, the NNR confiredm that the revised handling instructions for the following transport packages were found acceptable:

Certificate of Package Design Approval	Transport Container	Authorised for
ZA/NNR 1004/ B(U)-96	Erica Transport Container	Transport I-131 in solid form within South Africa and internationally including Argentina, Canada, the United Kingdom and the United States of America using all modes of transport.
ZA/NNR 1006/ B(U)-96 (Rev 05)	1006 Cobalt Flask	Transport ^{60}Co and ^{137}Cs sealed sources in number of countries including Argentina, Canada and the United Kingdom by land, sea or inland waterways.

4.4.5. Safety Assessment of Routine Transport of Fissile Material from OR Tambo International Airport

During the reporting period, as required by the NNR, Necsa re-evaluated, updated and resubmitted the Safety Assessment Report for routine transport of fissile material from OR Tambo International Airport. Following a review of the submission, Necsa was required to address NNR's comments.

4.5. Radioactive Waste Safety

4.5.1. Pelstore Waste Projects

Pelstore is licensed to receive and store radioactive waste drums from various radioactive waste generating facilities on the Pelindaba site. The Pelstore Waste Acceptance Requirements (WAR) for solid radioactive waste does not allow for drums to contain any free-standing liquid.

Volume Reduction Facility

As part of the waste management activities in the Pelstore, Necsa had initiated a project for volume reduction of compressible radioactive waste packages stored in the Pelstore. The Volume Reduction Facility (VRF) is currently undergoing hot commissioning and has not been approved for routine operation. During the reporting period, Necsa submitted responses to NNR comments and the following submissions:

- Request to resume operations for hot commissioning.
- Operating Technical Specifications (OTS).

The NNR accepted the revised facility and OTS and prior to NNR granting approval for resumption, Necsa was required submit to a list of prepared drums that will be compacted to complete hot commissioning and schedule thereof.

Waste Segregation and Repacking Facility

The Waste Segregation and Repacking facility will be constructed with Pelstore and its intention is to enable the removal of liquid or unwanted items from waste containing drums and the segregation and repacking of low-level radioactive waste. During the reporting period the NNR received and reviewed the following Necsa documents for the Waste Segregation and Repacking facility in Pelstore:

- Authorisation Change Request for Waste Segregation and Repacking Facility in Pelstore.
- Licensing strategy
- Description and qualification approach
- Process and facility description
- Project management plan

Following the review, the NNR issued comments on submitted documents for Necsa to address.

X-Ray Facility

The X-Ray Facility will be installed inside Pelstore since it is used for the verification of drum content compliance with the Pelstore WAR. The main function is to detect possible presence of liquid inside newly presented NLM waste drums and old drums inside NLM storage facilities. X-Ray scanning is used to identify liquid in waste drums to limit the number of drums that need to be manually inspected and therefore limit worker exposure and time. The X-Ray Facility will be placed close to the eastern entrance of Pelstore where a receiving area will be located. During the reporting period, the NNR reviewed the Safety Assessment Report (SAR) and identified comments for Necsa to address.

Bus Shed Drum Rehabilitation and Re-Packing Project

A project to rehabilitate corroded drums in the Bus Shed was started in 2013. After comments received from the NNR on the previous submissions and the requirements of the Vaalputs Waste Acceptance Criteria, a decision was taken to redefine the project. Necsa submitted the following document some of which the NNR previously reviewed:

- Revised Licensing Strategy.
- Cold Commissioning Manual.

- Cold Commissioning Plan.
- Option Study: Comparison Report Between off the Shelf and Manufactured Over-Pack.
- Safety Assessment Report.
- Systems, Structures and Components (SSC) Classification.

During the reporting period, the NNR reviewed the Necsa responses to the previous NNR comments. The NNR accepted Necsa responses on the Licensing Strategy, Cold Commissioning, SSC Classification, and the Option Study. The NNR further required Necsa to address NNR comments on the Safety Assessment report prior to NNR acceptance.

4.5.2. Thabana Complex

Proposed Expansion of the Thabana Pipe Store

The Thabana Pipe Store, within the Thabana Complex, authorised under Nuclear Installation Licence NIL-04, is utilised for the interim storage of used fuel from the SAFARI-1 Research Reactor. This is a dry storage facility comprising subsurface sealed stainless steel storage pipes, positioned in boreholes. The pipe openings are shielded with a lead plug and an airtight flange, and the pipes are kept under a positive pressure with an inert gas. The operating technical specification limits the acceptance of used fuel to the Thabana Pipe Store to fuel that has undergone a cooling period of at least two years. This subsurface borehole design serves the dual purpose of shielding and heat transfer.

Necsa proposes to increase the current storage capacity for used fuel elements and cater for the long-term storage of uranium residue waste from the NTP Radiochemicals Complex. During the reporting period the NNR reviewed the Necsa response to the previous NNR comments for the following submissions:

- Safety Assessment Report.
- Basic Design Report.
- SSC Classification.
- Manufacturing.
- In-Service Inspection and Maintenance Process and Preventative Maintenance Plan.
- DMRE Approval.

Further the NNR reviewed and issued comments on the Necsa Public Information Document (PID) for the proposed expansion. The PID will provide the public with information on the project.

4.5.3. Uranium Residue Project in the NTP Radiochemical Complex

As part of the radioactive waste management improvements and rationalisation project within the NTP Radiochemical Complex (Hot Cell Complex), Necsa had previously requested approval for modification of the utilisation of Cell 2, Cell 6A and Cell 6B in the facility. Necsa proposed to use Cell 6A and Cell 6B for the conditioning of the uranium residue and Cell 2 as an interim store for the storage of the uranium residue from Mo-99 and I-131 radiopharmaceutical manufacturing processes.

During the reporting period, the NNR reviewed the Necsa submission requesting NNR approval to conduct further uranium residue runs associated with the Uranium Residue Project in Cell 2, Cell 3, Cell 6A and Cell 6B. Following review of the Necsa/NTP request, the NNR granted approval for Necsa/NTP to conduct of a maximum of 10 further uranium residue runs. Said runs were conducted in the period 6 January 2022 to 8 February 2022. Further, Necsa/NTP were required to provide a timeframe for the determination and verification of the calibration curves for the Active-Well Coincidence Counter (AWCC). Subsequently, Necsa/NTP made a submission regarding the calibration of the AWCC and revised and submitted the updated hot commissioning report. said submission will be reviewed in the next reporting period.

4.6. Decommissioning

4.6.1. Decommissioning Strategies

Section 5.1.1 of Regulation on Safety Standards and Regulatory requires the authorised facilities to compile and submit the conceptual decommissioning strategy to the competent authority for approval. The conceptual decommissioning strategy includes a description of the decommissioning options, overall timescales for the decommissioning of the facility and the end-state after completion of all decommissioning activities. During this reporting period, the NNR reviewed the following decommissioning strategies:

- Uranium Metallurgy (UMET) Facility.
- Element Production (ELPROD) Facility.
- SAFARI-1 Research Reactor.
- Quarantine Storage Facility.
- Area 14.

Following a review of the submissions, the NNR provided Necsa with comments and accepted the decommissioning strategy for the SAFARI-1 Research Reactor.

4.7. Nuclear Emergency Planning and Preparedness

A RNEE was conducted at Necsa on 26 January 2022. The NNR evaluated the implementation of both Necsa and Madibeng local municipality emergency plans together with their respective emergency procedures for on-site and off-site response. The specific objectives of the RNEE were to evaluate:

- Activation of EmergencyFunctionaries (on-site) by the Emergency Control Centre.
- Notification of Madibeng Disaster Management Centre.
- Declaration of the general emergency.
- Protection of the emergency workers.
- Availability of emergency and protective equipment.

- Implementation of the Operational Intervention Levels.
- Notification of the public.
- Radiological monitoring and assessment of the environment.
- Implementation of the protective actions on-site.
- Communication between response organisations (on-site and off-site).

In general, considering specific objectives evaluated during the exercise, Necsa demonstrated satisfactory application of emergency preparedness and response actions. Nevertheless, several findings in the form of non-compliances (deficiencies) and observation (areas of improvements) were identified, which need to be addressed for further improvement of emergency plans and procedures. During 2022/23 The NNR closely monitored the corrective actions of Necsa and the intervening organisations in addressing the findings.

4.8. Environmental Protection

As part of its environmental management programme, Necsa collected samples from various media in the environment around the Pelindaba site. The sampling locations were based on the surrounding land use. The sample media collected included:

- Air filter monitoring on the Pelindaba site.
- Water and fish samples from the Crocodile River and Hartbeespoort Dam.
- Plant material in the surrounding area.
- Milk from surrounding farms.

4.9. Regulatory Independent Verification of Radiological Environmental Analysis

The NNR conducted an independent verification of radiological environmental analysis by collecting samples in and around the Necsa Pelindaba site. Analysis of the samples revealed no safety concerns about the environment around the Necsa Pelindaba site.

4.10. Competency and Sufficiency of Necsa's Pelindaba Workforce to Work Safely

In addition to the requirements in the SSRP Regulations, the conditions of licence require that Necsa must establish and implement arrangements to ensure that suitably qualified and experienced persons perform any duties that may affect the safety of operations on the site, or any duties assigned by or under the conditions of the licence. Such arrangements must make provision for the appointment, as appropriate, of authorised persons to control and supervise operations that may affect plant or facility safety.

During the reporting period, the NNR continued to monitor Necsa to ensure that it meets the following obligations:

a) To service the conditions of authorisation in particular the management of safety and fostering of a strong nuclear safety and nuclear security culture including:
   - maintaining sufficient numbers of suitably qualified and experienced staff to maintain the facility specific safety case and safe operations.
   - ability to service creditors, in particular suppliers of Structures, Systems and Components (SSC's) and services important to nuclear and radiological safety and nuclear security.

- ability to undertake all required plant modification, maintenance, ageing management and refurbishments required in the interest of conventional safety as well as nuclear and radiation safety and nuclear security.
- effective review of events at authorised facilities and undertaking prompt and appropriate corrective and preventative measures.

b) Effectively maintain all provisions required for conventional, chemical, nuclear and radiological emergency preparedness and response as well as nuclear security.

c) Satisfy requirements related to funding and safe management of decommissioning, decontamination, radioactive waste management and used (spent) fuel management.

4.11. Physical Security

The NNR inspects Necsa's security measures as part of the compliance assurance programme and tracks the improvements required as part of the said programme. During the reporting period, the NNR conducted two security inspections at the Necsa Pelindaba site. Necsa was required to register separate nuclear occurrences for each of the findings from the NNR inspections. The NNR continues to monitor the corrective actions against these findings.

4.12. Safety of Sealed Radioactive Sources

The NNR conducts inspections on radioactive sources at the Necsa Pelindaba site and receives six-monthly reports on radioactive sources that are used, stored on site or transported to and from the site. There were no safety concerns regarding sealed radioactive sources at Pelindaba site during the review period.

4.13. Nuclear Incidents/Accidents Reported

There were no nuclear incidents or accidents reported during the period under review.

4.14. Regulatory Compliance Inspections

The NNR completed 85 planned inspections at Necsa's Pelindaba site during the reporting period. An additional three inspections were conducted at SAFARI-1 and the P2700 Complex (UCHEM) as a result of an uncontrolled detachment of the control rod actuator at position C5; and a reported malfunction of the ventilation warning system at P2700 Complex (UCHEM) and a reactor scram Neutron Safety Channel (NSC). Overall, the inspections confirmed satisfactory compliance with NNR requirements and regulations. Nevertheless, non-compliances and/or areas for improvement were identified. Necsa was required to register separate nuclear occurrences for each of the findings from the NNR inspections. The NNR continues to monitor progress against these as part of the annual compliance assurance programme and event reporting system.

4.15. Regulatory investigations

There were no investigations conducted during the reporting period.

4.16. Regulatory Warnings or Directives to Stop Work

There were no directives issued to Necsa facilities during the reporting period. However, operations at the the NTP Radiochemicals Complex were intermittently stopped. This is discussed further below.

4.16.1. NTP Radiochemicals Complex

Operational Safe Mode: Molybdenum and Iodine Lines Operational Readiness Run Report

During the reporting period, the NNR received and reviewed the Necsa/NTP monthly reports on operation readiness runs. The reports were found to be acceptable.

Monthly Report Regarding Solidification of Dissolution Cell Effluent

During the reporting period, the NNR received and reviewed the Necsa/NTP monthly solidification reports. The workers' doses were found to be within acceptable limits.

Re-Instating the Pneumatic Piston and Non-Latching On/Off Valve System on Cell 12

During the reporting period, the NNR reviewed the Necsa/NTP document requesting NNR approval for re-instating the pneumatic piston and the non-latching on-off valve system on Cell 12. Following the review, the NNR identified comments for Necsa/NTP to address.

Daleen Inner Container Project

During the reporting period, the NNR reviewed Necsa/NTP response addressing previous NNR comments pertaining authorisation request for modification of the Daleen inner container and approval for manufacturing. The outcomes of the NNR review confirmed that Necsa has satisfactorily the NNR comments. The NNR granted approval.

4.17. Appeals to the CEO

There were no appeals concerning the Pelindaba site during the reporting period..

5. Regulation of the Vaalputs National Radioactive Waste Disposal Facility

Vaalputs is located in the District of Namaqualand, 110 km south east of Springbok in the Northern Cape Province, is 450 km from KNPS, and about 1 400 km from Pelindaba. The site is approximately 10 000 hectares in extent, of which the area currently set aside for waste disposal occupies roughly A350 hectares surrounded by a 200 m exclusion zone. The Vaalputs property straddles the transition between summer and winter rainfall areas in South Africa which results in a semi-arid to arid climate in which evaporation far exceeds precipitation.

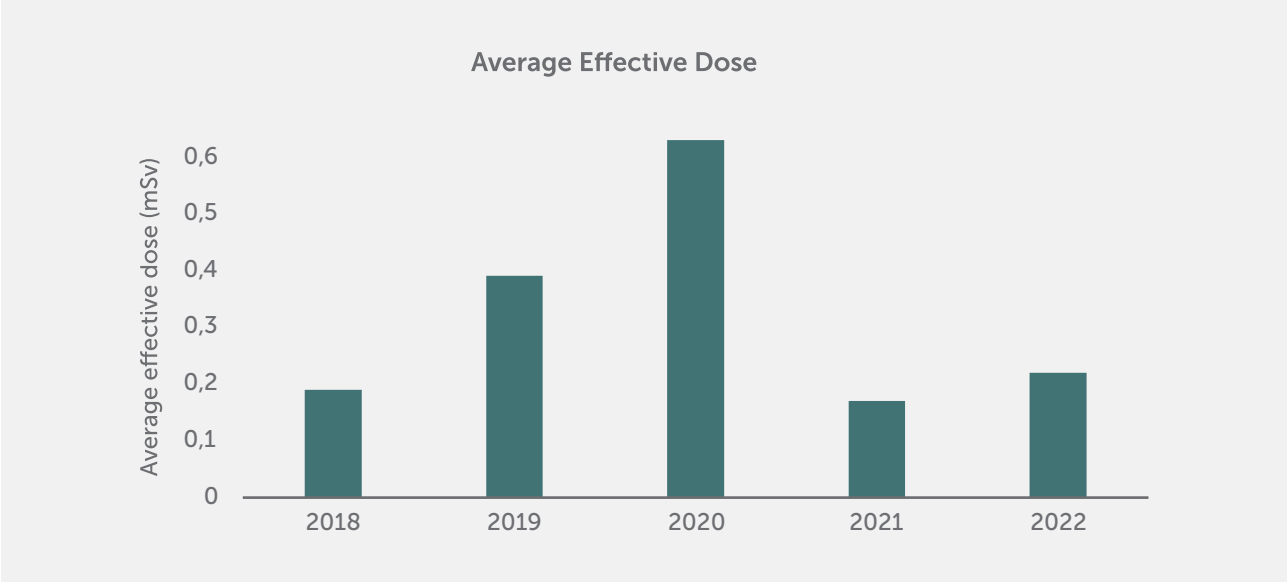
Vaalputs currently only receives solid or solidified Low-level Waste (LLW) from KNPS and Necsa. The KNPS waste consists essentially of compactable and non-compactable waste-like redundant equipment, filters, ion-exchange resins, evaporator concentrate waste and contaminated paper gloves, plastic and coveralls in concrete and steel drums. The Necsa waste currently disposed of at Vaalputs consists of solidified Medium Active Concentrates (MAC) in steel drums and solidified NTP liquid waste in concrete drums.

5.1. Occupational exposure to radiation

The NNR prescribes that occupational exposure of any worker should be controlled to ensure that the limits shown in the table below are not exceeded.

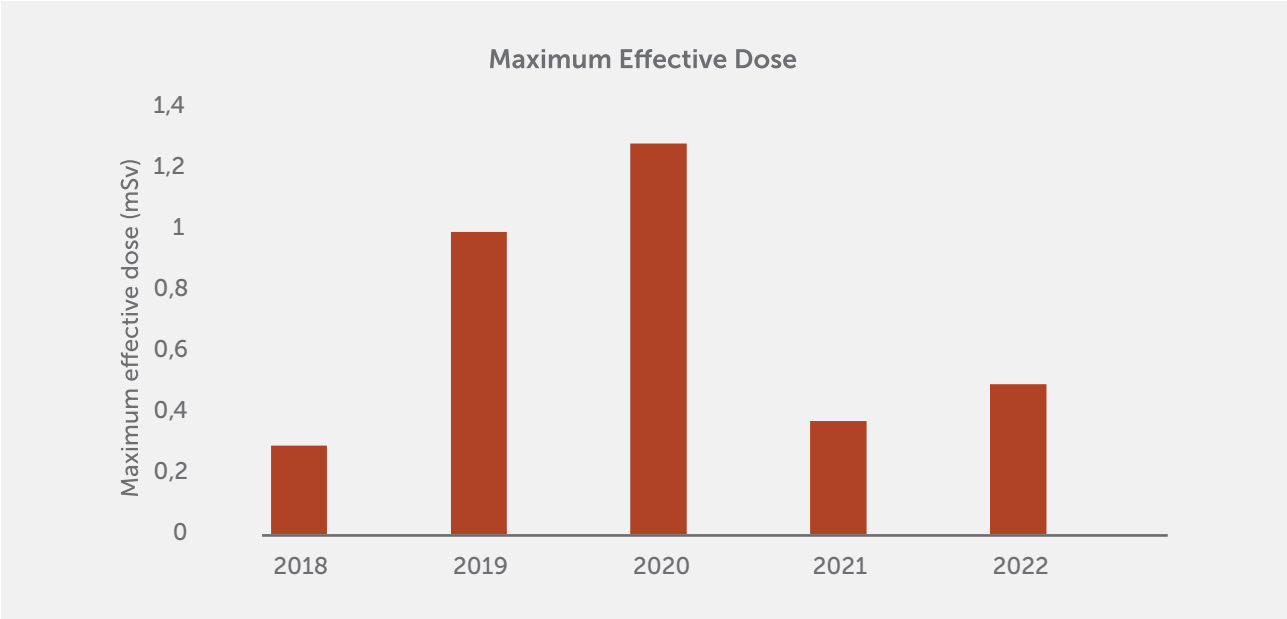
GENERAL REGULATORY DOSE LIMITS	
Maximum individual worker dose	A (maximum) effective dose of 50mSv in any single year
Average individual worker dose	An (average) effective of 20mSv per annum averaged over five consecutive years

Figure 8: Average effective dose at the Vaalputs site (2018-2022)



The worker doses at Vaalputs over the past five years were within regulatory limits (see Figure 8). Radiation exposure of workers at Vaalputs remained subject to control through the Operational Radiation Protection Programme . This programme is applied to ensure that control within the annual individual dose limit is achieved. In addition, the programme also serves to ensure that all doses are kept ALARA. The maximum effective doses accrued for individual workers during the past five years were below 1mSv (see Figure 9).

Figure 9: Maximum effective dose at the Vaalputs site (2018-2022)



5.2. Projected public exposure to radiation

There were no safety concerns regarding public exposure to radiation. In accordance with the conditions of authorisation and the SSRP Regulations, the public doses resulting from effluent discharges from Vaalputs must comply with the dose constraint of 0.25mSv. The environmental surveillance programme for Vaalputs has shown no measurable radiological impact on the community living around the facility.

5.3. Nuclear safety

5.3.1. Appointment of the acting manager for Vaalputs

Licence holders are required to report any organisational structure that may have a bearing on health, safety and the environment as contemplated in the NNR Act. In 2022/23 the NNR received a submission of the appointment of the acting manager for Vaalputs. The NNR reviewed the submission and concluded that Necsa had provided appropriate documentation to justify such appointment.

5.3.2. In-Service Inspection and Maintenance Programme

In-service inspection and maintenance programmes provide the systematic framework for these examinations. An effective ISI and maintenance programme ensures both that the safety of the plant is not adversely affected after the commencement of operation and that the levels of reliability and availability of all plant SSCs remain in accordance with the assumptions and intent of the design.

In 2022/23, the NNR reviewed the Vaalputs In-Service Inspection and Maintenance Programme . Upon successfully addressing the NNR comments, the NNR granted approval to Vaalputs to implement the latest revision of the ISI and maintenance programme.

5.4. Public Safety Information Forum

The process for appointing a new Chairperson and Deputy Chairperson is in progress.

5.5. Transport safety

There were no concerns related to the safety of transport of radioactive material during the reporting period.

5.6. Radioactive Waste Safety

The receipt and disposal of radioactive waste at Vaalputs was in conformance with the conditions of authorisation and the Vaalputs Waste Acceptance Criteria (WAC). During the reporting period Vaalputs received a seven radioactive waste shipments from KNPS comprising:

- Three shipments consisting of 256 metal drum waste packages.
- Four shipments consisting of 19 concrete waste packages.
- There were no shipments from Necsa.

5.7. Environmental Protection

There were no concerns regarding the safety of the environment during the reporting period.

5.8. Nuclear Emergency Planning and Preparedness

There were no safety concerns regarding nuclear emergency planning and preparedness during the reporting period.

5.9. Competency and sufficiency of workforce to work safely

In addition to the requirements in the SSRP Regulations, the conditions of authorisation require that Necsa establish and implement arrangements to ensure that suitably qualified and experienced persons perform any duties, which may affect the safety of operations on the site, or any duties assigned by or under the conditions of authorisation. Such arrangements must make provision for the appointment, as appropriate, of authorised persons to control and supervise operations, which may affect plant or facility safety.

During the reporting period, the NNR reviewed the Necsa submission regarding the appointment of the Vaalputs acting Manager. Further, Necsa provided a status update on the filling of vacancies which were open due resignation and retirement. The NNR was satisfied that Necsa complied with the above requirement.

5.10. Physical Security

During the reporting period, the NNR conducted one security inspection at Vaalputs. There were no safety concerns regarding the physical security of Vaalputs during the reporting period.

5.11. Safety of Sealed Radioactive Sources

The NNR conducts inspections on radioactive sources at the Vaalputs site and receives six-monthly reports on radioactive sources that are used, stored on site or transported to and from the site. There were no safety concerns regarding sealed radioactive sources at Vaalputs during the reporting period.

5.12. Nuclear incident/accidents reported

There were no nuclear incidents or accidents reported during the reporting period.

5.13. Regulatory compliance inspections

During the reporting period, the NNR conducted six routine inspections at Vaalputs. These inspections provided assurance that there was generally a satisfactory level of compliance with regulations and conditions of authorisation. Nevertheless, some non-compliance issues were raised during these inspections, and the NNR continues to monitor the corrective actions against these.

5.14. Regulatory warnings or directives to stop work

There were no directives issued to stop work at Vaalputs during the reporting period.

5.15. Appeals to the CEO

There were no appeals concerning Vaalputs during the reporting period.

5.16. Application for the existing Vaalputs nuclear installation licence (NIL-28) to be issued in the name of the National Radioactive Waste Disposal Institute (NRWDI)

The NRWDI application for the issue of Vaalputs Nuclear Installation Licence in the name of NRWDI was received in February 2019. The application was supported by a licensing strategy and schedule of submissions which were submitted to the NNR for review.

5.16.1. Outstanding NRWDI submissions in support of licence application

Following the NNR meeting with NRWDI on 9 March 2022 to discuss the outstanding issues, NRWDI was required to submit documents pertaining arrangements for addressing section 30 of the NNR Act on Strict Liability for nuclear damage and the staffing levels.

During the reporting period the NNR received a submission of documents from NRWDI. The NNR reviewed the documents and concluded that NRWDI failed to satisfactorily address the NNR comments. The NNR identified gaps in the NRWDI submission and communicated the outcome to NRWDI to address.

5.16.2. Organisational Change

During the reporting period, the NNR reviewed the NRWDI notification of a new appointment to replace the retired Executive Manager for Compliance. The outcome of the NNR review concluded that NRWDI provided appropriate documentation to justify the appointment.

6. Regulation of Naturally Occurring Radioactive Material

Radionuclides are present in all minerals and raw materials of natural origin, the most important of which, for the purposes of radiation protection, are those in the U238 and Th232 decay series and K40. These materials are commonly referred to as NORM. In some materials, the levels of NORM are significantly higher, to the extent that regulatory control may be required for radiation protection purposes.

In terms of the NNR Act, the NNR is responsible for exercising regulatory control over facilities and activities handling NORM. Facilities and activities which handle NORM require an authorisation from the NNR. In terms of section 22 (1) of the NNR Act, such facilities and activities are authorised by means of a nuclear authorisation in a form of a certificate of registration (COR) or certificate of exemption (COE). The COR or COE is issued with conditions. The NNR implements a system of compliance related activities to provide assurance of compliance with the conditions of the nuclear authorisation.

The NNR grants nuclear authorisations for the following categories of NORM:

- Mining and mineral processing facilities.
- Scrap smelters.
- Fertiliser manufacturers.
- Scrap processors.
- Small users.
- Service providers.

The activities at these facilities include actions such as:

- Mining and processing of gold, copper, uranium, heavy minerals and phosphate rock.
- Recycling of scrap material (i.e. ferrous and non-ferrous metal, plastic, stainless steel, etc.) that is contaminated by NORM.
- Small users (i.e. laboratories) conducting tests of small quantities of NORM samples for verification of proposed and existing actions, including samples from prospecting activities.
- Service providers (i.e. storage warehouse), supplying clean-up services of radiologically contaminated sites.

6.1. Processing of new applications

In 2022/23 the NNR issued the following CORs:

- Deton Engineering (Pty) Ltd, COR-295.
- ThermoTec Mobile Air (Pty) Ltd, COR-296.
- Anglo Corporate Services SA (Pty) Ltd-Technical solutions, COR-297.

6.2. Surrender of Nuclear Authorisations

During the reporting the NNR approved eight applications for surrender and the following holders were issued with letters of recognition for the surrender:

- University of Pretoria, COE-19.
- Tulimax (Pty) Ltd, COE-40.
- Yara South Africa (Pty) Ltd, COR-39.
- Anglo American Research Laboratories, COR-77.
- Witwatersrand Consolidated Gold Resources, COR-115.
- Afrisam (Pty) Ltd, COR-186.
- Castle Ultra Trading 47 (Pty) T/A Nkhona Traders, COR-280.
- C. Steinweg (Pty) Ltd, COR-285.

6.3. Review of the current conditions of authorisation

The conditions of authorisation included in Part A of the COR issued for different categories of CORs were reviewed and updated during the reporting period. The review and update was triggered by factors such operational feedback in regulating these facilities and activities, the lessons learned from other global regulatory counterparts, and participation in IAEA technical expert missions.

6.4. Occupational exposure to radiation

The primary radiation exposure pathway to workers in the underground mining environment is via the inhalation of radon progeny. The regulatory limits that are applicable for all workers classified as occupationally exposed to radiation are:

GENERAL REGULATORY DOSE LIMITS	
Workforce	Regulatory Criteria (SSRP R388)
Maximum individual worker dose	A (maximum) effective dose of 50 mSv in any single year
Average individual worker dose	20 mSv per annum averaged over five consecutive years

Based on these limits, the NNR requires authorisation holders to demonstrate that the average effective dose of 20 mSv per year, averaged over five consecutive years are not exceeded. This requires the authorisation holders to have proper dose records of all occupational exposed workers for a rolling five year period as required by the SSRP Regulations.

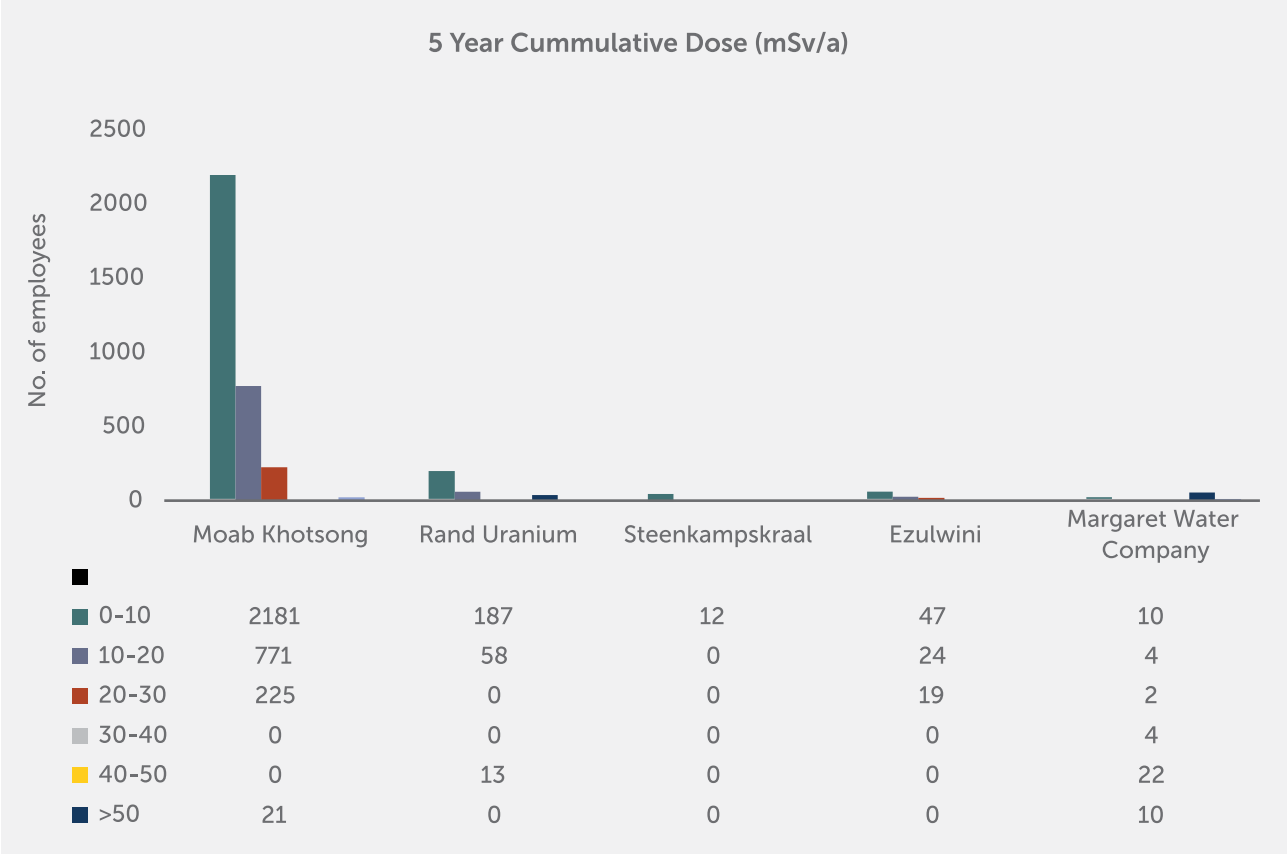
The NNR continued to focus much of its regulatory efforts on those mines where the potential exists for workers to be exposed to radiation levels in excess of the annual dose limit. During the period under review, no workers exceeded the annual dose limit (see Figure 10). The other areas with no potential of exceeding the regulatory annual dose limit (i.e. the so-called Non-Special Case Mines) remain well below the annual dose limit of 50 mSv/a (see Figure 11).

6.5. Special Case Mines (SCM)

For a mine to be classified as a special case by the NNR, the potential monthly dose rate should be 1.7 mSv and above, or the projected annual dose of 20 mSv is exceeded. During the period under review, the radiological exposures remain below the annual dose limit of 50 mSv/a and 20 mSv/a average over five consecutive years (2018 to 2022) as illustrated in figures 10 and 11.

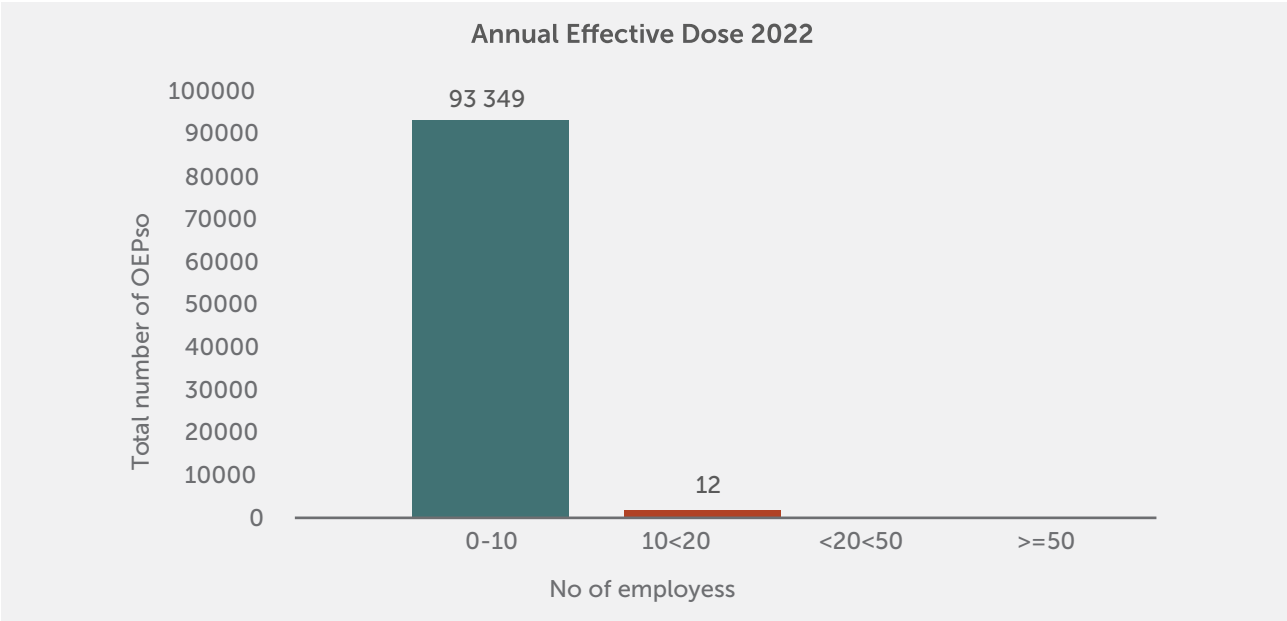
Figure 10: Maximum effective dose for SCMs (2022)

Figure 11: Five consecutive years (2018-2022) cumulative dose for SCMs



6.6. Non-Special Case Mines (Non-SCMs)

Figure 12: Maximum effective dose for Non-SCMs (2022)



6.7. Public exposure to radiation

In accordance with the SSRP, the doses for members of the public must comply with the action specific dose constraint of 0.25 mSv per annum and a dose limit of 1 mSv per annum from all authorised actions. The NNR further required the holders on a five-year frequency to submit the Public Radiological Safety Assessments to ensure that the authorised actions did not pose any undue health risks to members of the public and the environment. These reports were reviewed by the NNR and the projected public exposures from these authorised actions were all within the public dose limit of 1 mSv.

6.8. Transport safety

There were no major events of safety concerns regarding transport of NORM during the period under review. The transportation of NORM and NORM contaminated scrap was carried out in accordance with the requirements of the NNR. Routine transport of surface contaminated objects (SCO-1) scrap material takes place on a daily basis between authorised facilities. The NNR continued to receive notifications of consignments triggering alarms at gamma drive-through monitors of facilities that are not authorised to handle radioactive materials. For these notifications received, the NNR responds accordingly and provides advice to the facilities.

6.9. Radioactive Waste Safety

There were no major safety concerns related to radioactive waste during the period under review. Authorisation holders were required to manage their radioactive waste and associated waste products. Accordingly, section 1.5 of the COR requires that a waste management procedure be submitted to demonstrate compliance with NNR requirements.

The quarterly and annual waste management reports submitted to the NNR demonstrated compliance with the NNR requirements. The summary of waste is presented below.

Table 31: Total waste reported from all NORM authorisation holders

Type of Waste	Quantities	Unit (tons/m3/L)	No. of consignments
Unrestricted Scrap (tons)	3,492105E+09	tons	8 0328
Restricted Scrap (tons)	1,819472E+05	tons	5 426
Gaseous Releases	3,099460E+11	m3	n/a
Liquid waste (m3/year)	3,340023E+11	L	n/a
Semi solid (tons)	9,934511E+07	tons	n/a
Solids (tons)	3,805990E+08	tons	161 392
Other waste (tons)	9,320067E+07	tons	9 840

6.10. Safety of sealed radioactive sources

The safety and regulation of radioactive sealed sources at NORM facilities falls outside the scope of the NNR Act. However, any sealed source discovered by the NNR during inspections at the NORM regulated facilities or out of regulatory control is handle safely and reported to Department of health through the Directorate: Radiation Control of the South African Health Products Regulatory Authority (SAHPRA).

6.11. Nuclear incidents/accidents/occurrences reported

There were 16 registered occurrences during the reporting period. The occurrences included pipeline failure incidents resulting in the spillage of the slurry into the environment, non-compliance to approved procedures and physical security system related events. Corrective and preventive measures are being implemented to ensure that the incidents do not recur and/or rate thereof is significantly reduced.

Ten occurrences were closed and six are in the process of being closed. The NNR will continue to follow up on these incidents during compliance assurance inspections to ensure that they are closed and to evaluate the effectiveness of corrective and preventive actions in ensuring that there are no recurrences or that they are significantly reduced.

6.12. Regulatory compliance

In order to verify the degree of compliance with the conditions of nuclear authorisation, the NNR undertakes independent inspections (announced and unannounced), investigations, environmental verification and review of compliance reports submitted by authorisation holders.

6.12.1. Inspections

A total of 120 planned inspections, one additional unplanned inspection and one confirmatory survey were conducted during the reporting period. Authorisation holders were required to investigate the root causes of the non-compliances and implementation of corrective and preventive actions. The corrective and preventive actions implemented by the authorisation holders are confirmed during the NNR compliance inspections.

6.12.2. Investigations

In 2022/23 the NNR conducted the following regulatory investigations:

a) 18 May 2022:
An investigation on alleged contamination of ground water at Beaulieu Estate in Kyalami as reported by the member of the public was conducted. Eight borehole water samples were taken from eight different plots and taken to the laboratory for analysis. The analysis report indicated some traces of uranium on the boreholes and the monitoring is ongoing. The investigation is ongoing.
b) 26 May 2022:
An investigation into radioactive material detected at Cape Town Transnet Port terminal (Authorisation Holder of COR-180) was conducted. The material was originating from COR-150. Samples were taken and send to laboratory for analysis. The results were received, and the authorisation holder was required to correct the classification of material. The investigation is closed.
c) 30 May 2022:
An investigation regarding the occurrence or spillage of radioactive material at COR-291 (Nanoretech) was conducted. The reported Occurrence is pending the completion of the review and assessment of the latest information submitted by the authorisation holder. The investigation was completed.
d) 9 June 2022:
An investigation was conducted at Lancaster Dam on the use of potentially radioactive sand (tailings) for building purposes by members of the public. Samples were taken for radioactivity analysis at the laboratory and the results were below the regulatory limits. The investigation is closed.
e) 14 June 2022

Investigation was conducted at Phalaborwa Recycling (Authorisation holder of COR-278 which was in a process of surrendering) on a piece of contaminated scrap which was identified. The activity concentration on the identified piece of scrap was found to be below the regulatory limits. This investigation is closed.

f) 24 June 2022

A follow-up investigation at MRS (Bambanani Scrap Dealer) was conducted. The investigation related to a consignment which triggered a radiation monitor at Columbus Steel in January 2022 where a Cs-137 source was detected and the empty casing (housing) of Cs-137 was found. The investigation is closed.

g) 13 July 2022:

The investigation on potential handling of radioactive material was conducted at the old DRD site. It was noted that Amatshe Mining Company was contracted to do reclamation on the site on behalf of Dino Properties (COE-10). It was further noted that the site adjacent to Dino Properties was under application by West Wits Mining, The investigation is closed.

h) 13 September 2022:

An investigation was conducted at Power Metal Recyclers on radioactive material detected by the drive through gamma radiation detector at their side. The detected Cs-137 source (density gauge) was retrieved by Necsa on 21 September 2022 on behalf of DoH (SAHPRA) for safe keeping. The investigation is closed.

i) 18 January 2023:

An investigation into the flooding at the informal settlement (Slovoville) was conducted. During the investigation it was noted that the flooding was caused by the storm water due to heavy rainfalls, leaking of municipal pipes which discharged water into Tailings Storage Facility Paddocks and the failure of municipal water pumping stations. The NNR has collected water samples from Slovoville for radionuclides analysis. The investigation remains open.

6.13. Environmental verification samples

There were 318 environmental samples taken up and down stream of the authorised facilities and activities for independent verification purposes. Ad hoc samples were also taken for purpose of investigations. Based on the radio analysis results, the NNR enforces compliance in the interest of protection of persons, properties and the environment, and to inform future environmental sampling programmes.

6.14. Regulatory enforcements issued

A graded approach is followed when applying enforcement actions on the identified non-compliances. During the reporting period the identified non-compliances entailed authorisation holders being required to submit corrective action plans and did not warrant any stringent enforcement actions.

The following directives were issued during the reporting period:

- A directive was issued to COR-100 to cease operations associated with the museum and to close all NORM-bearing sections of the SAAF Base Facilities due to repeated non compliances to conditions of the Certificate of Registration.
- A directive was issued to COR-182 to close all the recurring non-compliances noted during the previous compliance assurance inspections by 23 January 2023.
- A directive was issued to COR-116 to close all the recurring non-compliances noted during the previous and current compliance assurance inspections by end of April 2023.

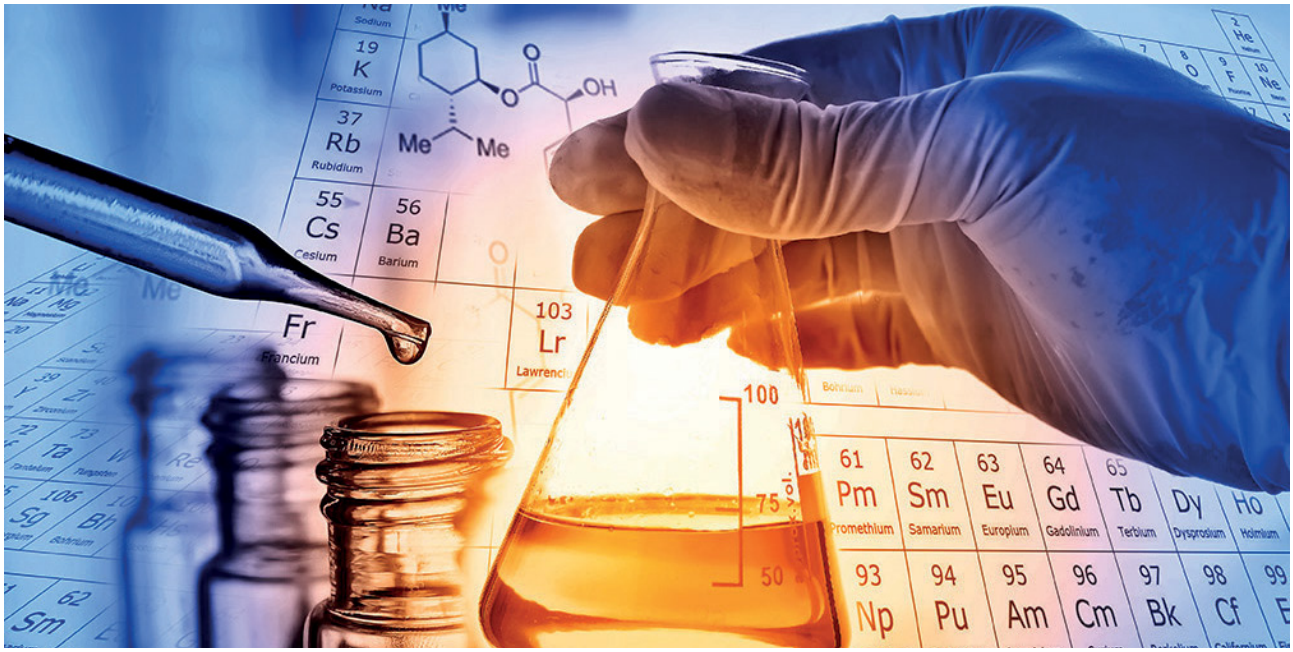
6.15. Appeals to the CEO

There were no appeals to the CEO during the reporting period.

6.16. Developmental work on regulation of existing exposures

During the reporting period the NNR conducted indoor radon measurements in homes and schools in some parts of the country, and the radon measurements are planned to continue. The acquired radon data will confirm a need to regulate indoor radon in the country and the extent of regulatory control. Based on radon data gathered so far, initial indications are that most of the South African population may not be exposed to radon levels that may warrant regulatory control. However, this will be confirmed after radon is measured in most parts of the country.

Furthermore, the NNR conducted radiological surveys on several sites that are suspected of radioactive contamination to determine the level of contamination (if any) and to establish if remedial work may be necessary. The NNR has established that most suspected sites require follow-up detail assessment to ascertain if there is any radioactivity before the site can be used or occupied.



7. RITS

7.1. RNEE

The NNR conducted a RNEE at KNPS on 4 November 2022. The objective of the exercise were to evaluate the implementation of the approved on-site and off-site emergency plans and their respective procedures, adequacy of response, availability and operability of emergency equipment, activation, and communication between the response organisations. The scenario simulated a standard Large Break Loss of Coolant Accident (LOCA) on Unit 1 and subsequently the release of radioactive material into the environment and in the public domain. The exercise was observed by representatives from local, regional, and international organisations.

7.2. Regulatory Emergency Response Centre (RERC)

To ensure readiness of the RERC to respond to emergencies, a RERC drill was conducted at the NNR Laboratory on 6 February 2023. The aim of the drill was to evaluate the readiness of the NNR laboratory to conduct its activities in response to a notification of a nuclear or radiological emergency at an authorisation holder. The scenario simulated a release of radioactive material from the SAFARI-1 reactor in building P-1800 at Necsa. The outcome of the emergency exercise and the RERC drill are that, although in general the NNR laboratory had demonstrated satisfactory implementation of emergency plans and procedures, areas of improvements were identified for correction.

7.3. Regulatory Standards

The NNR identified enhancements to its standards to regulate nuclear installations and actions. During the reporting period, the NNR expanded its suite of regulatory standards through the review of regulations, development of regulatory guides, as well as technical assessment guides. The NNR proactively performed a review of the proposed draft general nuclear safety regulations against international standards and regulatory experiences. In preparation for potential new nuclear facilities, the NNR is revising the specific nuclear safety regulations to incorporate Small Modular Reactors. An internal guide on LTO of Nuclear Power Plants was developed to evaluate the plant live extension of the KNPS. A guideline for the environmental monitoring verification programme design was reviewed and updated and approved for use by NNR to design environmental monitoring verification programmes for all facilities under the regulatory control of the NNR.

7.4. National Dose Register (NDR)

During the reporting period, the NNR and other associated South African authorities has made good progress with the implementation of the NDR to improve the management and reporting of occupational doses accrued at authorised facilities project. The NDR is administrated by the NNR with oversight from the NDR National Steering Committee. The NNR encourages Data Providers to upload exposure records and verify such uploads. Training and Troubleshooting support are being provided to Data Providers on a frequent basis.

7.5. IAEA Integrated Regulatory Review Service (IRRS) Mission Project

Good progress was made with the implementation of actions to close out the remaining Recommendations and Suggestions contained in the IAEA IRRS Mission Report following the international expert mission in December 2016. Major milestones achieved during the reporting period relating to the Action Plan include, among others, proposed improvements on the General Safety Regulations to incorporate developments in IAEA standards, continued roles out of the national radon plan, and further development of several internal guidance documents and inspection guides, considering the value of the 2016 IAEA mission and the associated regulatory improvements.

7.6. Environmental Surveillance and Analysis

As part of the NNR compliance assurance and independent verification processes, the NNR Environmental Surveillance Laboratory, analysed 538 environmental samples collected from various regulated facilities and activities during the reporting period. Furthermore, as part of fulfilling the requirements of section 7.7 of the ISO/IEC 17025:2017 Quality Management System on ensuring the validity of analytical results, the laboratory participated in the International Proficiency Testing Scheme (PTS) organised by the IAEA network of Analytical Laboratories for the Measurement of Environmental Radioactivity (ALMERA). The PTS results for various radionuclides obtained using different radio-analytical techniques in the NNR laboratory were

acceptable for precision and accuracy and were comparable with the results obtained by international peers.

7.6.1. Accreditation of the NNR Laboratory

To obtain ISO/IEC 17025:2017 accreditation, the NNR Laboratory Quality Management System was assessed by the South African National Accreditation System (SANAS) with respect to the requirements of ISO/IEC 17025:2017. The laboratory obtained recommendation for accreditation for gamma spectrometry methods; however, the certification will be concluded after the NNR laboratory addresses the 15 raised non-conformances. It is anticipated that the non-conformances will be cleared during the 2023/24 financial year.

8. CNSS

The CNSS is mandated to collaborate develop and enhance nuclear safety and security capabilities in order to support nuclear regulatory decision-making. The work conducted by CNSS is governed by a Memorandum of Agreement signed between the NNR and University of Pretoria designating the University of Pretoria as the host institution for CNSS.

8.1. Key projects and initiatives implemented in 2022/23 are summarised as follows:

- The CNSS completed its first year of implementing its pilot project which is required to inform the long-term sustainability of CNSS.
- The CNSS continued working on the on-going research project involving the assessment of radon and associated radionuclides in the vicinity of gold and coal mines, in South Africa.
- The CNSS continued working on the on-going research project involving Independent verification of the environmental hydrogeological conditions of the Thyspunt and Duynefontyn nuclear site.
- The CNSS a conducted an Intellectual Property assessment of its portfolio of projects. The assessment included projects executed at the Partner Institutions and those commissioned within the CNSS Programme Office. In support of this initiative, the CNSS collaborated with the National Intellectual Property Management Office who offered training and advisory services for the assessment. The collaboration between the CNSS and the National Intellectual Property Management Office also resulted in CNSS staff participating in training workshops provided by the World Intellectual Property Institution.
- In March 2023, the CNSS in partnership with the North Carolina State University hosted a training on "Multi-Physics Computer Codes for Safety Analysis" for the nuclear industry. The training was attended by officials from Eskom, Necsa, WITS and NNR Technical Divisions.
- The CNSS signed an agreement with the World Institute for Nuclear Security for collaboration in the following areas:
  - Training support on the WINS Academy Transport Security Management (WINS) module to be developed and delivered to nuclear security practitioners from South Africa and neighboring countries.
  - Increased access by beneficiaries to key reference and training tools to assist with CNSS development and operational sustainability
  - Increased and certified demonstrable competence of nuclear security professional at national, regional, and international levels.

- Increased participation in WINS Academy certified programmes.

- In January 2023, the NNR approved the implementation of a technical cooperation project between NNR and the European Commission for three years. The project will be implemented by the CNSS and is aimed at maintaining and improving nuclear safety and radiation protection in South Africa.
- Members of the CNSS Advisory Panel were re-appointed for an additional three year term ending in 2025/26. Following their re-appointment, the CNSS Advisory Panel members met during February 2023 and developed a number of recommendations aimed at informing the sustainability strategy and future priorities for CNSS.

9. International Cooperation

The regulation of nuclear safety, security and the transport of radioactive material operates within a global context of international law, obligations, standards and guidance.

The NNR is a well-respected nuclear safety regulator regionally and globally. Engagement with the global nuclear safety community including with bilateral regulatory counterparts is an important part of the NNR's role and responsibilities under the NNRA. The NNR's international cooperation commitments are broad in scope and range from fulfilling legally binding national obligations, contributing to the enhancement of global safety standards, participating in IAEA expert peer review missions, serve as counterparts in technical cooperation initiatives, engage in regulatory bilateral cooperation activities and participate in various multilateral fora.

9.1. In 2022 the following notable international cooperation initiatives were undertaken

9.1.1 In consultation with national role players the NNR compiled and submitted South Africa's 9th National CNS Report to the IAEA. The report demonstrated that South Africa maintained a high level of nuclear safety through the effective implementation of a sound regulatory framework and conducting active regulatory oversight. This was achieved through active national measures, international cooperation with several role players, and bi-lateral partners.

9.1.2 South Africa presented its National Report at the Seventh Review Meeting of the Joint Convention on the Safety of Spent Fuel Management and Safety of Radioactive Waste Management which took place at the IAEA in Vienna, Austria, from 27 June 2022 to 1 July 2022. A South African delegation comprising representatives from the South African Mission in Vienna, NNR, DMRE, Eskom, Necsa and NWRDI attended the meeting. The NNR's Programme Manager NTWP, Mr Thiagan Pather served as the Vice President for the Seventh Review Meeting of Contracting parties to the JC.

9.1.3 South Africa participated in the Joint 8th and 9th Review Meeting of the Convention on Nuclear Safety on 20-31 March 2023. The South African delegation to the joint Review Meeting was led by Ms. Ditebogo Kgomo (NNR CEO) and supported by Mr. Orion Phillips (NNR Executive NPP), Mr. Peter Bester (NNR NPP Programme Manager), and Mr. Israel Sekoko (Eskom's Middle-Line Manager). NNR Board member Mr. Mosia was also part of the delegation.

9.1.4 NNR CEO and Board Chairperson supported the South African delegation's participation at 66th Session of the IAEA General Conference which took place from 26-20 September 2022 in Vienna.

9.1.5 NNR technical experts participated in the following IAEA Safety Standards Committees:

- Commission on Safety Standards
- Nuclear Safety Standards Committee
- Radiation Safety Standards Committee
- Emergency Preparedness and Response Standards Committee
- Transport Safety Standards Committee
- Waste Safety Standards Committee

9.1.6 NTWP Programme Manager, Mr Thiagan Pather participated in programme committee meetings for the IAEA International Conference on the Safety of Radioactive Waste Management, Decommissioning, and Environmental Protection and Remediation: Ensuring Safety and Enabling Sustainability.

9.1.7 The RASIMS Teams composed of NNR and SAHPRA staff, collected and updated the information onto the RASIMS portal.

9.1.8 NNR Manager Communication and Stakeholder Relations, Mr. Gino Moonsamy was re-appointed as the Chairperson of the IAEAs Global Nuclear Safety and Security's Steering Committee. Mr. Moonsamy chaired the 6th Annual Global Nuclear Safety and Security Communications Network Steering Committee held at the IAEA on 28-29 November 2022. Communication experts from various IAEA member states shared their recent experiences in nuclear safety and security communications. The Steering Committee finalised a workplan for 2023 and made recommendations to the IAEA on capacity building initiatives for member states.

9.1.9 Technical bilateral cooperation exchanges were held with the United States Nuclear Regulatory Commission, the Canadian Nuclear Safety Commission and the Nuclear Safety Authority of France.

9.1.10 Senior officials from the United States Nuclear Regulatory Commission, Egyptian Atomic Energy Authority, Nuclear Regulatory Authority Kwabenya-Ghana and INTERPOL France participated in the stakeholder observer programme during the RNEE at the KNPS.

9.1.11 NNR hosted a bilateral meeting with high ranking officials and senior technical experts from the Nuclear Safety Authority of France.

9.2. Peer Review Missions

9.2.1. IRRS

The IAEA establishes, and globally promotes the application of its safety and security standards. It does this through its peer review services such as IRRS. IRRS missions are aimed at enhancing the effectiveness of a Member State's regulatory infrastructure for nuclear, radiation, radioactive waste and transport safety. An IRRS team is made up of technical experts, drawn from Member States, and IAEA personnel. It evaluates a state's government, legal and regulatory infrastructure for safety. This includes the practical arrangements for regulating its nuclear facilities, activities and radiological safety against relevant IAEA Safety Guidance and Standards.

During the reporting period, NNR technical experts participated in the following IAEA IRRS Missions:

- NNR Principal Specialist, Mr Paul Hinrichsen participated in the IRRS Mission on Transport to Zimbabwe from 23-30 May 2022 and the IRRS Mission on Transport to Singapore from 9-21 October 2022.
- NNR Programme Manager NPP, Mr Peter Bester participated in the IRRS Mission to Bangladesh (Module 7: Inspections) from 26 November - 8 December 2022.
- NNR Programme Manager NTWP, Mr Thiagan Pather participated in the IRRS Mission to Bangladesh (Module 1 and Modules 5-9: Waste Management) from 26 November- 8 December 2022.
- NNR Programme Manager RITS, Mr Alan Muller participated in IRRS mission to Sweden (Module 10: Emergency Preparedness and Response) from 13-25 November 2022.

9.2.2. IAEA ARTEMIS missions

IAEA ARTEMIS missions represent an integrated expert peer review service for radioactive waste and spent fuel management, decommissioning and remediation programmes. This service is intended for facility operators and organizations responsible for radioactive waste management, as well as for regulators, national policy and other decision-makers.

ARTEMIS reviews provide independent expert opinion and advice, drawn from an international team of specialists convened by the IAEA. Reviews are based on the IAEA safety standards, technical guidance and international good practices.

ARTEMIS reviews offer many benefits to the Member State and its organizations including:

- Improved organisational performance;
- Enhanced safety, optimized operations and reduced costs;
- Improved transparency and stakeholder confidence, including with the general public; and
- Strengthened credibility of decision-making processes from expert technical and programme perspectives.

During the reporting period, the NNR's Programme Manager NTWP, Mr Thiagan Pather participated as the team leader for the ARTEMIS Mission to Slovakia from 12 - 22 February 2023.

10. National Cooperation

The NNR cooperates with relevant South African Intergovernment entities for monitoring and control of radioactive material or exposure to ionising radiation.

During the reporting period the NNR held successful engagements with the South African Civil Aviation Authority, Railway Safety Regulator and the Department of Forestry Fisheries and Environment. Senior officials from the South African Civil Aviation Authority, Railway Safety Regulator and the Department of Forestry Fisheries and Environment participated in the stakeholder observer programme during the RNEE at KNPS.g.

11. Public Communications and Outreach

The NNR operates in an ecosystem of public groups with varying interests in our activities and those who are directly affected by the performance of the NNR. Forging links with the youth and establishing channels to educate and inspire young persons is considered a key pathway for engaging with the public on topics related to radiation and its safe use. In this way the NNR aims to contribute to a future generation of the 'public' who are well-informed in an unbiased way and thus enabled to make better informed decisions on topics such as nuclear safety and radiation protection.

The NNR's Leaner outreach programme contributes to the development of appropriate skills and capabilities in support of governments' long-term vision of basic education. Our main focus is to help learners, especially in the rural parts of South Africa with course selection in Science, Technology, Engineering, and Technology (STEM) fields and with post matric career guidance in the nuclear energy field. The NNR utilises various engagement conduits including partnering with other entities to conduct learner awareness sessions in the local communities.

In 2022/23 the NNR implemented 25 successful local community and public awareness events across various provinces in South Africa.

PART G: FINANCIAL information

PART G: FINANCIAL INFORMATION

REPORT OF THE AUDITOR-GENERAL
for the year ended 31 March 2023

Report of the Auditor-General to Parliament on National Nuclear Regulator

Report on the audit of the financial statements

Opinion

1. I have audited the financial statements of the National Nuclear Regulator set out on pages 148 to 187, which comprise the statement of financial position as at 31 March 2023, statement of financial performance, statement of changes in net assets, cash flow statement and statement of comparison of budget information with actual information for the year then ended, as well as notes to the financial statements, including a summary of significant accounting policies.

2. In my opinion, the financial statements present fairly, in all material respects, the financial position of the National Nuclear Regulator as at 31 March 2023 and its financial performance and cash flows for the year then ended in accordance with the Standards of Generally Recognised Accounting Practice (Standards of GRAP) and the requirements of the Public Finance Management Act 1 of 1999 (PFMA).

Basis for opinion

3. I conducted my audit in accordance with the International Standards on Auditing (ISAs). My responsibilities under those standards are further described in the responsibilities of the auditor-general for the audit of the financial statements section of my report.

4. I am independent of the National Nuclear Regulator in accordance with the International Ethics Standards Board for Accountants' International code of ethics for professional accountants (including International Independence Standards) (IESBA code) as well as other ethical requirements that are relevant to my audit in South Africa. I have fulfilled my other ethical responsibilities in accordance with these requirements and the IESBA code.

5. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Emphasis of matter

6. I draw attention to the matter below. My opinion is not modified in respect of this matter.

Restatement of corresponding figures

7. As disclosed in note 36 to the financial statements, the corresponding figures for 31 March 2022 were restated as a result of an error in the financial statements of the public entity for the year ended 31 March 2023.

Other matter

8. I draw attention to the matter below. My opinion is not modified in respect of this matter.

REPORT OF THE AUDITOR-GENERAL
for the year ended 31 March 2023

National Treasury Instruction Note No. 4 of 2022-23: PFMA Compliance and Reporting Framework.

9. On 23 December 2022 National Treasury issued Instruction Note No. 4: PFMA Compliance and Reporting Framework of 2022-23 in terms of section 76(1)(b), (e) and (f), 2(e) and (4)(a) and (c) of the PFMA which came into effect on 3 January 2023. The PFMA Compliance and Reporting Framework also addresses the disclosure of unauthorised expenditure, irregular expenditure, and fruitless and wasteful expenditure (UIFW expenditure). Among the effects of this framework is that irregular and fruitless and wasteful expenditure incurred in previous financial years and not addressed is no longer disclosed in the disclosure notes of the annual financial statements, only the current year and prior year figures are disclosed in note 32 to the financial statements. The movements in respect of irregular expenditure and fruitless and wasteful expenditure are no longer disclosed in the notes to the annual financial statements of National Nuclear Regulator. The disclosure of these movements (e.g., condoned, recoverable, removed, written off, under assessment, under determination and under investigation) are now required to be included as part of other information in the annual report of the auditees. I do not express an opinion on the disclosure of irregular expenditure and fruitless and wasteful expenditure in the annual report.

Responsibilities of the accounting authority for the financial statements

10. The board of directors which constitutes the accounting authority is responsible for the preparation and fair presentation of the financial statements in accordance with the Standards of Generally Recognised Accounting Practice (Standards of GRAP) and the requirements of the Public Finance Management Act 1 of 1999 (PFMA); and for such internal control as the accounting authority determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

11. In preparing the financial statements, the accounting authority is responsible for assessing the public entity's ability to continue as a going concern; disclosing, as applicable, matters relating to going concern; and using the going concern basis of accounting unless the appropriate governance structure either intends to liquidate the public entity or to cease operations or has no realistic alternative but to do so.

Responsibilities of the auditor-general for the audit of the financial statements

12. My objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error; and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with the ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

13. A further description of my responsibilities for the audit of the financial statements is included in the annexure to this auditor's report.

REPORT OF THE AUDITOR-GENERAL
for the year ended 31 March 2023

Report on the audit of the annual performance report

14. In accordance with the Public Audit Act 25 of 2004 (PAA) and the general notice issued in terms thereof, I must audit and report on the usefulness and reliability of the reported performance against predetermined objectives for selected programmes presented in the annual performance report. The accounting authority is responsible for the preparation of the annual performance report.

15. I selected the following programmes presented in the annual performance report for the year ended 31 March 2023 for auditing. I selected programmes that measure the public entity's performance on its primary mandated functions and that are of significant national, community or public interest.

Programme	Page numbers	Purpose
Programme 2: Nuclear Power Plant (NPP)	27	Focusses on a holistic approach towards regulating safety and security for nuclear power plant technology through delivering compliance assurance and enforcement activities, reviews and assessments, and general oversight of the KNPS licence.
Programme 3: Nuclear Technology and Waste Projects and Naturally Occurring Radioactive Material (NTWP and NORM)	27	Provides a holistic approach towards regulating nuclear and radiation safety as well as nuclear and radiation security through delivering compliance assurance and enforcement activities, which include conducting inspections, investigations, surveillances and environmental monitoring and sampling related to nuclear technology facilities and activities, radioactive waste management and all identified NORM facilities.

16. I evaluated the reported performance information for the selected programmes against the criteria developed from the performance management and reporting framework, as defined in the general notice. When an annual performance report is prepared using these criteria, it provides useful and reliable information and insights to users on the public entity's planning and delivery on its mandate and objectives.

17. I performed procedures to test whether:

- the indicators used for planning and reporting on performance can be linked directly to the public entity's mandate and the achievement of its planned objectives.
- the indicators are well defined and verifiable to ensure that they are easy to understand and apply consistently and that I can confirm the methods and processes to be used for measuring achievements.
- the targets can be linked directly to the achievement of the indicators and are specific, time bound and measurable to ensure that it is easy to understand what should be delivered and by when, the required level of performance as well as how performance will be evaluated.
- the indicators and targets reported on in the annual performance report are the same as what was committed to in the approved initial or revised planning documents.

REPORT OF THE AUDITOR-GENERAL
for the year ended 31 March 2023

- the reported performance information is presented in the annual performance report in the prescribed manner.
- there is adequate supporting evidence for the achievements reported and for the reasons provided for any over- or underachievement of targets.

18. I performed the procedures for the purpose of reporting material findings only; and not to express an assurance opinion.

19. I did not identify any material findings on the reported performance information of Programme 2: Nuclear Power Plant (NPP) and Programme 3: Nuclear Technology and Waste Projects and Naturally Occurring Radioactive Material (NTWP and NORM).

Other matter

20. I draw attention to the matter below.

Material misstatements

21. I identified material misstatements in the annual performance report submitted for auditing. These material misstatements were in the reported performance information of Programme 3: Nuclear Technology and Waste Projects and Naturally Occurring Radioactive Material (NTWP and NORM). Management subsequently corrected all the misstatements, and I did not include any material findings in this report.

Report on compliance with legislation

22. In accordance with the PAA and the general notice issued in terms thereof, I must audit and report on compliance with applicable legislation relating to financial matters, financial management and other related matters. The accounting authority is responsible for the public entity's compliance with legislation.

23. I performed procedures to test compliance with selected requirements in key legislation in accordance with the findings engagement methodology of the Auditor-General of South Africa (AGSA). This engagement is not an assurance engagement. Accordingly, I do not express an assurance opinion or conclusion.

24. Through an established AGSA process, I selected requirements in key legislation for compliance testing that are relevant to the financial and performance management of the public entity, clear to allow consistent measurement and evaluation, while also sufficiently detailed and readily available to report in an understandable manner. The selected legislative requirements are included in the annexure to this auditor's report.

25. I did not identify any material non-compliance with the selected legislative requirements.

REPORT OF THE AUDITOR-GENERAL
for the year ended 31 March 2023

Other information in the annual report

26. The accounting authority is responsible for the other information included in the annual report. The other information referred to does not include the financial statements, the auditor's report and those selected programmes presented in the annual performance report that have been specifically reported on in this auditor's report.

27. My opinion on the financial statements, the report on the audit of the annual performance report and the report on compliance with legislation, do not cover the other information included in the annual report and I do not express an audit opinion or any form of assurance conclusion on it.

28. My responsibility is to read this other information and, in doing so, consider whether it is materially inconsistent with the financial statements and the selected programmes presented in the annual performance report, or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

29. I did not receive the other information prior to the date of this auditor's report. When I do receive and read this information, if I conclude that there is a material misstatement therein, I am required to communicate the matter to those charged with governance and request that the other information be corrected. If the other information is not corrected, I may have to retract this auditor's report and re-issue an amended report as appropriate. However, if it is corrected this will not be necessary.

Internal control deficiencies

30. I considered internal control relevant to my audit of the financial statements, annual performance report and compliance with applicable legislation; however, my objective was not to express any form of assurance on it.

31. I did not identify any significant deficiencies in internal control.

Auditor-General
Pretoria
29 August 2023

REPORT OF THE AUDITOR-GENERAL
for the year ended 31 March 2023

Annexure to the auditor's report

The annexure includes the following:

32. the auditor-general's responsibility for the audit

33. the selected legislative requirements for compliance testing.

Auditor-general's responsibility for the audit

Professional judgement and professional scepticism

As part of an audit in accordance with the ISAs, I exercise professional judgement and maintain professional scepticism throughout my audit of the financial statements and the procedures performed on reported performance information for selected programmes and on the public entity's compliance with selected requirements in key legislation.

Financial statements

In addition to my responsibility for the audit of the financial statements as described in this auditor's report, I also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error; design and perform audit procedures responsive to those risks; and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the public entity's internal control.
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made.
- conclude on the appropriateness of the use of the going concern basis of accounting in the preparation of the financial statements. I also conclude, based on the audit evidence obtained, whether a material uncertainty exists relating to events or conditions that may cast significant doubt on the ability of the public entity to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements about the material uncertainty or, if such disclosures are inadequate, to modify my opinion on the financial statements. My conclusions are based on the information available to me at the date of this auditor's report. However, future events or conditions may cause a public entity to cease operating as a going concern.
- evaluate the overall presentation, structure, and content of the financial statements, including the disclosures, and determine whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

REPORT OF THE AUDITOR-GENERAL
for the year ended 31 March 2023

Communication with those charged with governance.

I communicate with the accounting authority regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide the accounting authority with a statement that I have complied with relevant ethical requirements regarding independence and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence and, where applicable, actions taken to eliminate threats or safeguards applied.

Compliance with legislation – selected legislative requirements.

The selected legislative requirements are as follows:

Legislation	Sections or regulations
Public Finance Management Act No.1 of 1999 (PFMA)	Section 51(1)(a)(iv); 51(1)(b)(i); 51(1)(b)(ii); 51(1)(e)(iii) Section 53(4) Section 54(2) (c'); 54(2)(d) Section 55(1)(a); 55(1)(b); 55(1)(c)(i) Section 56(1); 56(2) Section 57(b). Section 66(3) (c'); 66(5)
Treasury Regulations for departments, trading entities, constitutional institutions, and public entities (TR)	Treasury Regulation 8.2.1; 8.2.2 Treasury Regulation 16A 3.1; 16A 3.2; 16A 3.2(a); 16A 6.1; 16A6.2(a) & (b); 16A6.2(e);16A 6.3(a); 16A 6.3(a)(i); 16A 6.3(b); 16A 6.3(c); 16A 6.3(d); 16A 6.3(e); 16A 6.4; 16A 6.5; 16A 6.6; TR 16A.7.1; 16A.7.3; 16A.7.6; 16A.7.7; 16A 8.2(1); 16A 8.2(2); 16A 8.3; 16A 8.3(d); 16A 8.4; 16A9.1 16A9; 16A9.1(b)(ii); 16A9.1(c); 16A 9.1(d); 16A 9.1(e); 16A9.1(f); 16A 9.2; 16A 9.2(a)(ii); TR 16A 9.2(a)(iii) Treasury Regulation 30.1.1; 30.1.3(a); 30.1.3(b); 30.1.3(d); 30.2.1 Treasury Regulation 31.1.2(c') Treasury Regulation 31.2.1; 31.2.5; 31.2.7(a) Treasury Regulation 31.3.3 Treasury Regulation 32.1.1(a); 32.1.1(b); 32.1.1(c') Treasury Regulation 33.1.1; 33.1.3
Prevention and Combating of Corrupt Activities Act No.12 of 2004 (PRECCA)	Section 34(1)

REPORT OF THE AUDITOR-GENERAL
for the year ended 31 March 2023

Legislation	Sections or regulations
Construction Industry Development Board Act No.38 of 2000 (CIDB)	Section 18(1)
CIDB Regulations	CIDB regulation 17; 25(1); 25 (5) & 25(7A)
PPPFA	Section 1(i); 2.1(a); 2.1(b); 2.1(f)
PPR 2017	Paragraph 4.1; 4.2
	Paragraph 5.1; 5.3; 5.6; 5.7
	Paragraph 6.1; 6.2; 6.3; 6.5; 6.6; 6.8
	Paragraph 7.1; 7.2; 7.3; 7.5; 7.6; 7.8
	Paragraph 8.2; 8.5
	Paragraph 9.1; 9.2
	Paragraph 10.1; 10.2
	Paragraph 11.1; 11.2
	Paragraph 12.1 and 12.2
PPR 2022	Paragraph 3.1
	Paragraph 4.1; 4.2; 4.3; 4.4
	Paragraph 5.1; 5.2; 5.3; 5.4
PFMA SCM Instruction no. 09 of 2022/2023	Paragraph 3.1; 3.3 (b); 3.3 (c); 3.3 (e); 3.6
National Treasury Instruction No.1 of 2015/16	Paragraph 3.1; 4.1; 4.2
NT SCM Instruction Note 03 2021/22	Paragraph 4.1; 4.2 (b); 4.3; 4.4; 4.4 (a); 4.4 (c) -(d); 4.6
	Paragraph 5.4
	Paragraph 7.2; 7.6
NT SCM Instruction 4A of 2016/17	Paragraph 6
NT SCM Instruction Note 03 2019/20	Par 5.5.1(vi); Paragraph 5.5.1(x);
NT SCM Instruction Note 11 2020/21	Paragraph 3.1; 3.4 (a) and (b); 3.9; 6.1;6.2;6.7
NT SCM Instruction note 2 of 2021/22	Paragraph 3.2.1; 3.2.2; 3.2.4(a) and (b); 3.3.1; 3.2.2
	Paragraph 4.1
PFMA SCM Instruction 04 of 2022/23	Paragraph 4(1); 4(2); 4(4)
Practice Note 5 of 2009/10	Paragraph 3.3
PFMA SCM instruction 08 of 2022/23	Paragraph 3.2
	Par. 4.3.2; 4.3.3
NT instruction note 4 of 2015/16	Paragraph 3.4
Second amendment of NTI 05 of 2020/21	Paragraph 4.8; 4.9; 5.1; 5.3

REPORT OF THE AUDITOR-GENERAL
for the year ended 31 March 2023

Legislation	Sections or regulations
Erratum NTI 5 of 202/21	Paragraph 1
Erratum NTI 5 of 202/21	Paragraph 2
Practice note 7 of 2009/10	Paragraph 4.1.2
Practice note 11 of 2008/9	Paragraph 3.1
	Paragraph 3.1 (b)
NT instruction note 1 of 2021/22	Paragraph 4.1

GENERAL INFORMATION

Country of incorporation and domicile	South Africa
Nature of business and principal activities	To provide protection for persons, property and the environment against nuclear damage, through the establishment of safety standards and regulatory practices.
Directors	Dr. T Motshudi (Chairperson)
	Ms. PD Peta (Deputy Chairperson)
	Ms. D Kgomo (CEO)
	Mr. P Phili
	Ms. LN Dlamini
	Mr. BP Petlane
	Dr. NZ Qunta
	Mrs. D Bendeman
	Mr. MA Mosia
	Mr. KP Maphoto
Registered office	Eco Glades Office Park
	Eco Glades 2, Block G
	Witch Hazel Avenue
	Highveld Ext 75, Eco Park, Centurion
	0157
Business address	Eco Glades Office Park
	Eco Glades 2, Block G
	420 Witch Hazel Avenue
	Eco Park, Centurion, Highveld Ext 75
	0157
Postal address	P.O. Box 7106
	Centurion, Eco Park
	Highveld Ext 75
	Pretoria
	0046
Executive Authority	Minister of Mineral Resources and Energy
Bankers	ABSA Bank
Auditor's	Auditor-General South Africa (AGSA)
	Registered Auditor's
Acting Secretary	Mr. FC Ndou

STATEMENT OF DIRECTOR'S RESPONSIBILITIES AND APPROVAL

The Directors are required by the Public Finance Management Act (Act 1 of 1999), to maintain adequate accounting records and are responsible for the content and integrity of the annual financial statements and related financial information included in this report. It is the responsibility of the Directors to ensure that the annual financial statements fairly present the state of affairs of the entity as at the end of the financial year and the results of its operations and cash flows for the period then ended. The external Auditor's were engaged to express an independent opinion on the annual financial statements were unrestricted access to all financial records and related data.

The annual financial statements have been prepared in accordance with Standards of Generally Recognised Accounting Practice (GRAP) including any interpretations, guidelines and directives issued by the Accounting Standards Board.

The annual financial statements are based upon appropriate accounting policies consistently applied and supported by reasonable and prudent judgements and estimates.

The Directors acknowledge that they are ultimately responsible for the system of internal financial control established by the entity and place considerable importance on maintaining a strong control environment. To enable the Directors to meet these responsibilities, the accounting authority sets standards for internal control aimed at reducing the risk of error in a cost effective manner. The standards include the proper delegation of responsibilities within a clearly defined framework, effective accounting procedures and adequate segregation of duties to ensure an acceptable level of risk. These controls are monitored throughout the entity and all employees are required to maintain the highest ethical standards in ensuring the entity's business is conducted in a manner that in all reasonable circumstances is above reproach. The focus of risk management in the entity is on identifying, assessing, managing and monitoring all known forms of risk across the entity. While operating risk cannot be fully eliminated, the entity endeavours to minimise it by ensuring that appropriate infrastructure, controls, systems and ethical behaviour are applied and managed within predetermined procedures and constraints.

The Directors are of the opinion, based on the information and explanations given by management, that the system of internal control provides reasonable assurance that the financial records may be relied on for the preparation of the annual financial statements. However, any system of internal financial control can provide only reasonable, and not absolute, assurance against material misstatement or deficit.

The Directors have reviewed the entity's cash flow forecast for the year to 31 March 2024 and, in the light of this review and the current financial position, they are satisfied that the entity has access to adequate resources to continue in operational existence for the foreseeable future.

The entity is mainly dependent on the authorisation fees and government grant for continued funding of operations. The annual financial statements are prepared on the basis that the entity is a going concern and that the entity has neither the intention nor the need to liquidate or curtail materially the scale of the entity or to invoke section 19 of the NNR Act.

The accounting authority is primarily responsible for the financial affairs of the entity, they are supported by the entity's internal Auditor's.

STATEMENT OF DIRECTOR'S RESPONSIBILITIES AND APPROVAL

The external Auditor's are responsible for independently reviewing and reporting on the entity's annual financial statements. The annual financial statement have been examined by the entity's external Auditor's and their report is presented on page 133.

The annual financial statements set out on pages 148-187, which have been prepared on the going concern basis, were approved by the accounting authority on 31 July 2023 and were signed on its behalf by:

Dr. MT Motshudi (Chairperson)
Chairperson of Board

Ms. D Kgomo
Chief Executive Officer

DIRECTOR'S REPORT

The Directors are submitting their report and the annual financial statements of the NNR for the year ended 31 March 2023 in acordance with section 55 of PFMA act 1 of 1999.

1. Incorporation

The National Nuclear Regulator is listed as a national public entity in Schedule 3 Part A of the Public Finance Management Act, (Act 1. of 1999, as amended). It was established in terms of Section 3 of the National Nuclear Regulator Act, (Act No 47 of 1999). It is engaged in activities at the highest professional level to provide for the protection of persons, property and the environment against nuclear damage, through the establishment of safety standards and regulatory practices.

2. Review of activities

Main business and operations

The NNR is engaged in activities aimed at protecting persons, property and the environment against nuclear damage in South Africa.

3. Going concern

The annual financial statements have been prepared on the basis of accounting policies applicable to a going concern. This basis presumes that funds will be available to finance future operations and that the realisation of assets and settlement of liabilities, contingent obligations and commitments will occur in the ordinary course of business.

4. Subsequent events

The directors are not aware of any significant matter or circumstances affecting financial statements arising since the end of the financial year.

5. Directors' interest

All directors have given general declarations of interest in terms of the section 8(10) of the NNR Act No 47 of 1999. These declarations indicate the nature of interest a director, spouse, partner or close family member holds in a company, including any directorship in a company classified as a related party to the NNR. No material contracts in which the directors have an interest were entered into in the current financial year.

6. Accounting policies

The annual financial statements are prepared in accordance with the prescribed Standards of Generally Recognised Accounting Practices (GRAP) issued by the Accounting Standards Board as the prescribed framework by National Treasury.

DIRECTOR'S REPORT

7. Accounting Authority

The Directors of the entity during the year and to the date of this report are as follows:

Name	Nationality	Changes
Dr. T Motshudi (Chairperson)	South African	
Ms. PD Peta (Deputy Chairperson)	South African	
Ms. D Kgomo (CEO)	South African	
Mr. P Phili	South African	
Ms. LN Dlamini	South African	
Mr. DM Mamphitha	South African	Resigned 31 July 2022
Mr. BP Petlane	South African	
Dr. NZ Qunta	South African	
Mrs. D Bendeman	South African	
Ms. V Miya	South African	Resigned 31 October 2022
Mr. MA Mosia	South African	
Mr. A Taylor (alternate member to Ms. V Miya	South African	Resigned 26 January 2023
Mr. KP Maphoto	South African	

8. Secretary

Mr. JC Kgoale suspended as secretary of the entity on 25 January 2023 and Mr. FC Ndou was appointed acting secretary on 3 February 2023.

Business address	Eco Glades Office Park Eco Glades 2 Block G Witch Hazel avenue Centurion 0157
Postal address	PO Box 7106 Centurion 0046

9. Corporate governance and Board of Directors meetings

The Accounting Authority has met as scheduled during the financial year, see page 51 for details of the annual report for schedule of meetings. Directors have access to all organisational information and executive management necessary to discharge its roles and responsibilities as mandated.

DIRECTOR'S REPORT

10. Controlling authority

The entity's controlling entity is Minister of Mineral Resources and Energy.

11. Bankers

ABSA Bank.

12. Auditor's

Auditor-General South Africa (AGSA) is the permanent Auditor's of the National Nuclear Regulator.

Dr. MT Motshudi (Chairperson)
Chairperson of Board

Ms. D Kgomo
Chief Executive Officer

STATEMENT OF FINANCIAL POSITION
as at 31 March 2023

Figures in Rand	Note(s)	2023	2022 Restated
Assets			
Current Assets			
Receivables from exchange transactions	8	4 587 484	2 503 082
Receivables from non-exchange transactions	9	509 783	632 593
Cash and cash equivalents	10	168 401 316	141 914 815
		173 498 583	**145 050 490**
Non-Current Assets			
Property, plant and equipment	4	94 647 030	90 750 770
Intangible assets	5	1 515 527	959 453
		96 162 557	**91 710 223**
Total Assets		**269 661 140**	**236 760 713**
Liabilities			
Current Liabilities			
Other financial liabilities	12	-	2 613 674
Operating lease liability	6	1 085 367	662 416
Payables from exchange transactions	14	12 280 259	9 048 844
Other payables from non-exchange transactions		-	345
Provisions	13	28 710 476	32 823 176
		42 076 102	**45 148 455**
Non-Current Liabilities			
Employee benefit obligation	7	9 114 837	9 253 344
Unspent conditional grants and receipts	11	-	12 893 618
		9 114 837	**22 146 962**
Total Liabilities		**51 190 939**	**67 295 417**
Net Assets		**218 470 201**	**169 465 300**
Accumulated surplus		**218 470 208.**	**169 465 300**

STATEMENT OF FINANCIAL PERFORMANCE

for the year ended 31 March 2023

Figures in Rand	Note(s)	2023	2022 Restated
Revenue			
Revenue from exchange transactions			
Authorisation fees		223 035 192	210 427 477
Application fees		26 623 412	25 402 111
Interest on overdue debtors		267 762	104 949
Actuarial gain		138 507	-
Other income	17	3 168 936	882 921
Interest received	22	14 078 774	8 223 436
Total revenue from exchange transactions		**267 312 583**	**245 040 894**
Revenue from non-exchange transactions			
Transfer revenue			
Government grants	16	47 308 000	46 089 000
Deferred income		12 972 481	796 411
Total revenue from non-exchange transactions		**60 280 481**	**46 885 411**
Total revenue	15	**327 593 064**	**291 926 305**
Expenditure			
Compensation of employees	20	(194 560 815)	(202 056 065)
Depreciation and amortisation		(12 275 376)	(11 780 123)
Finance costs	23	(46 633)	(652 568)
Lease rentals on operating lease		(4 692 437)	(4 716 816)
Debt Impairment	21	-	(8 805 882)
Actuarial losses		-	(275 303)
Goods and services	18	(67 012 895)	(62 286 986)
Total expenditure		**(278 588 156)**	**(290 573 743)**
Surplus for the year		**49 004 908**	**1 352 562**

STATEMENT OF CHANGES IN NET ASSETS

for the year ended 31 March 2023

Figures in Rand	Note(s)	Accumulated surplus
Opening balance as previously reported		167 094 101
Adjustments		
Prior year adjustments (Notes 36)		1 018 637
Balance at 01 April 2021 as restated*		168 112 738
Changes in net assets		
Surplus/(Deficit) for the year		1 352 562
Total changes		1 352 562
Balance at 01 April 2022		169 465 300
Changes in net assets		
Surplus/(Deficit) for the year		49 004 908
Total changes		49 004 908
Balance at 31 March 2023		218 470 208

CASH FLOW STATEMENT

for the year ended 31 March 2023

Figures in Rand	Note(s)	2023	2022 Restated
Cash flows from operating activities			
Receipts			
Authorisation fees		220 950 790	232 739 763
Application fees		26 623 412	25 402 111
Interest on overdue debtors		267 762	104 949
Other income		2 881 446	293 519
Interest income		14 078 774	8 223 436
Government grants		47 308 000	46 089 000
		312 110 184	**312 852 778**
Payments			
Compensation of employees		(198 633 423)	(189 188 323)
Goods & Services		(68 035 506)	(69 594 710)
Finance costs		(46 633)	(652 568)
		(266 715 562)	(259 435 601)
Net cash flows from operating activities	25	**45 394 622**	**53 417 177**
Cash flows from investing activities			
Purchase of property, plant and equipment	4	(15 511 127)	(4 315 225)
Proceeds from sale of property, plant and equipment	4	75 027	84 463
Purchase of other intangible assets	5	(858 347)	(362 225)
Net cash flows from investing activities		**(16 294 447)**	**(4 592 987)**
Cash flows from financing activities			
(Decrease)/Increase on other financial liabilities		(2 613 674)	(11 166 965)
Net cash flows from financing activities		**(2 613 674)**	**(11 166 965)**
Net increase/(decrease) in cash and cash equivalents		**26 486 501**	**37 657 225**
Cash and cash equivalents at the beginning of the year		141 914 815	104 257 590
Cash and cash equivalents at the end of the year	10	**168 401 316**	**141 914 815**

STATEMENT OF COMPARISON OF BUDGET AND ACTUAL AMOUNTS

for the year ended 31 March 2023

Budget on Accrual Basis

Figures in Rand	Approved budget	Adjustments	Final Budget	Actual amounts on comparable basis	Difference between final budget and actual	Reference
Statement of Financial Performance						
Revenue						
Revenue from exchange transactions						
Authorisation fees	215 428 304	7 833 534	**223 261 838**	223 035 192	**(226 646)**	34.1
Application fees	70 356 000	(21 420 000)	**48 936 000**	26 623 412	**(22 312 588)**	34.2
Interest on overdue debtors	-	-	**-**	267 762	**267 762**	34.8
Other income	794 000	-	**794 000**	3 168 936	**2 374 936**	34.3
Interest received	6 369 000	4 216 591	**10 585 591**	14 078 774	**3 493 183**	34.4
Total revenue from exchange transactions	**292 947 304**	**(9 369 875)**	**283 577 429**	**267 174 076**	**(16 403 353)**	
Revenue from non-exchange transactions						
Transfer revenue						
Government grants	47 308 000	-	**47 308 000**	47 308 000	**-**	
Deferred income	-	-	**-**	12 972 481	**12 972 481**	34.12
Total revenue from non-exchange transactions	**47 308 000**	**-**	**47 308 000**	**60 280 481**	**12 972 481**	
Total revenue	**340 255 304**	**(9 369 875)**	**330 885 429**	**327 454 557**	**(3 430 872)**	
Expenditure						
Compensation of employees	(208 317 617)	31 413 553	**(176 904 064)**	(194 560 815)	**(17 656 751)**	34.5
Depreciation and amortisation	(9 587 889)	(6 148 205)	**(15 736 094)**	(12 275 376)	**3 460 718**	34.9
Finance costs	(15 000)	(31 633)	**(46 633)**	(46 633)	**-**	
Lease rentals on operating lease	(3 568 343)	-	**(3 568 343)**	(4 692 437)	**(1 124 094)**	34.10
Goods & Services	(106 686 455)	3 671 300	**(103 015 155)**	(67 012 895)	**36 002 260**	34.6
Total expenditure	**(328 175 304)**	**28 905 015**	**(299 270 289)**	**(278 588 156)**	**20 682 133**	
Operating surplus	12 080 000	19 535 140	**31 615 140**	48 866 401	**17 251 261**	
Actuarial gains/losses	-	-	**-**	138 507	**138 507**	34.11
Surplus/(Defict) for the year	**12 080 000**	**19 535 140**	**31 615 140**	**49 004 908**	**17 389 768**	
Surplus for the year from continuing operations	**12 080 000**	**19 535 140**	**31 615 140**	**49 004 908**	**17 389 768**	
Capital Expenditure	(12 080 000)	(19 535 140)	**(31 615 140)**	(1 761 329)	**29 853 811**	34.7
Net Operating surplus/ (deficit)	**-**	**-**	**-**	**47 243 579**	**47 243 579**	

Total approved budget includes capital expenditure of R31,6 million. This budget amount is not part of the statement of financial performance. The expenditure thereof is also not included in the statement of financial performance. The total surplus for the year, as reported in the Statement of Financial Performance is therefore exclusive of the Capital Expenditure and amounts to R49 638 808. The net operating surplus after taking Capital Expenditure into account is R47 877 479.

ACCOUNTING POLICIES

1. Presentation of Annual Financial Statements

The following are the principal accounting policies of the entity which are, in all material respects, consistent with those of the previous year.

The annual financial statements are prepared under the historical cost basis, except where otherwise specified. The annual financial statements are prepared in accordance with the South African Standards of Generally Recognised Accounting Practice (SA Standards of GRAP) issued by the Accounting Standard Board, and in the manner required by the Public Finance Management Act, Act No.1 of 1999. These annual financial statements are presented in South African Rand. Assets and liabilities or income and expenditure will not be offset, unless it is required or permitted by a standard.

1.1. Significant judgements and sources of estimation uncertainty

In preparing the annual financial statements, management is required to make estimates and assumptions that affect the amounts represented in the annual financial statements and related disclosures. Use of available information and the application of judgement is inherent in the formation of estimates. Actual results in the future could differ from these estimates which may be material to the annual financial statements. Significant judgements include:

Post-employment medical benefits

The costs and liabilities of the post-employment medical care benefits are determined using methods relying on actuarial estimates and assumptions. Advice is taken from the independent actuaries relating to the appropriateness of the assumptions. Changes in the assumptions used may have a significant effect on the statement of financial performance and statement of financial position.

Provision for impairment of receivables

A provision for impairment of trade receivables is established when there is objective evidence that the NNR will not be able to collect all amounts due according to the original terms of receivables. The calculation of the amount to be provided for impairment of receivables requires the use of estimates and judgments, refer to note 21.

Annual evaluation of property, plant and equipment and intangibles

In order to review property, plant and equipment and intangibles for possible impairment, changes in useful life and changes in residual values at the end of each financial year in accordance with notes 4 and 5, reference is made to historical information and intended use of assets.

The preparation of financial statements requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting periods. Although these estimates are based on management's best knowledge of current events and actions that the entity may undertake in the future, actual results may ultimately differ from those estimates.

ACCOUNTING POLICIES

The presentation of the results of operations, financial position and cash flows in the financial statements of the entity is dependent upon and is sensitive to the accounting policies, assumptions and estimates that are used as a basis for the preparation of these financial statements. Management has made certain judgments in the process of applying the entity's accounting policies

1.2. Revenue recognition

Revenue comprises authorisation fees and revenue from special projects, including application fees. Revenue arising from authorisation fees which are published in the Gazette by the Minister on an annual basis is recognised on an accrual basis in accordance with the substance of the relevant arrangement with the holders of authorisation. Revenue from special projects is recognised on an accrual basis in accordance with the terms and conditions agreed upon with the other party.

1.3. Government grants

Government grants are recognised in profit and loss when there is reasonable assurance that they will be received and that the entity will comply with the conditions associated with the grants.

1.4. Property, plant and equipment

Property, plant and equipment is initially measured at cost.

The cost of an item of property, plant and equipment is the purchase price and other costs attributable to bring the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Trade discounts and rebates are deducted in arriving at the cost.

Where an asset is acquired through a non-exchange transaction, its cost is its fair value as at date of acquisition.

Where an item of property, plant and equipment is acquired in exchange for a non-monetary asset or monetary assets, or a combination of monetary and non-monetary assets, the asset acquired is initially measured at fair value (the cost). If the acquired item's fair value was not determinable, its deemed cost is the carrying amount of the asset(s) given up.

When significant components of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Costs include costs incurred initially to acquire or construct an item of property, plant and equipment and costs incurred subsequently to add to, replace part of, or service it. If a replacement cost is recognised in the carrying amount of an item of property, plant and equipment, the carrying amount of the replaced part is derecognised.

The initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located is also included in the cost of property, plant and equipment, where the entity is obligated to incur such expenditure, and where the obligation arises as a result of acquiring the asset or using it for purposes other than the production of inventories.

ACCOUNTING POLICIES

Recognition of costs in the carrying amount of an item of property, plant and equipment ceases when the item is in the location and condition necessary for it to be capable of operating in the manner intended by management.

Items such as spare parts, standby equipment and servicing equipment are recognised when they meet the definition of property, plant and equipment.

Major inspection costs which are a condition of continuing use of an item of property, plant and equipment and which meet the recognition criteria above are included as a replacement in the cost of the item of property, plant and equipment. Any remaining inspection costs from the previous inspection are derecognised.

Property, plant and equipment is carried at cost less accumulated depreciation and any impairment losses.

Property, plant and equipment are depreciated on the straight line basis over their expected useful lives to their estimated residual value.

The useful life of items of property, plant and equipment have been assessed as follows:

Item	Depreciation method	Average useful life
Land	Straight line	Not depreciated
Buildings	Straight line	20-25 Years
Furniture and fixtures	Straight line	10-25 Years
Motor vehicles	Straight line	8 Years
Office equipment	Straight line	5-25 Years
IT equipment	Straight line	3-10 Years
Leasehold improvements	Straight line	Over the lease period
Scientific equipment	Straight line	5-20 Years

Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item is depreciated separately.

The depreciation charge for each period is recognised in surplus or deficit unless it is included in the carrying amount of another asset.

Items of property, plant and equipment are derecognised when the asset is disposed of or when there are no further economic benefits or service potential expected from the use of the asset.

The gain or loss arising from the derecognition of an item of property, plant and equipment is included in surplus or deficit when the item is derecognised. The gain or loss arising from the derecognition of an item of property, plant and equipment is determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item.

ACCOUNTING POLICIES

1.5. Intangible assets

An asset is identifiable if it either:

- is separable, i.e. is capable of being separated or divided from an entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, identifiable assets or liability, regardless of whether the entity intends to do so; or
- arises from binding arrangements (including rights from contracts), regardless of whether those rights are transferable or separable from the entity or from other rights and obligations.

An intangible asset is recognised when:

- it is probable that the expected future economic benefits or service potential that are attributable to the asset will flow to the entity; and
- the cost or fair value of the asset can be measured reliably.

The entity assesses the probability of expected future economic benefits or service potential using reasonable and supportable assumptions that represent management's best estimate of the set of economic conditions that will exist over the useful life of the asset.

Where an intangible asset is acquired through a non-exchange transaction, its initial cost at the date of acquisition is measured at its fair value as at that date.

Expenditure on research (or on the research phase of an internal project) is recognised as an expense when it is incurred.

An intangible asset is regarded as having an indefinite useful life when, based on all relevant factors, there is no foreseeable limit to the period over which the asset is expected to generate net cash inflows or service potential. Amortisation is not provided for these intangible assets, but they are tested for impairment annually and whenever there is an indication that the asset may be impaired. For all other intangible assets amortisation is provided on a straight line basis over their useful life.

The amortisation period and the amortisation method for intangible assets are reviewed at each reporting date.

Reassessing the useful life of an intangible asset with a finite useful life after it was classified as indefinite is an indicator that the asset may be impaired. As a result the asset is tested for impairment and the remaining carrying amount is Compensation over its useful life.

Internally generated brands, mastheads, publishing titles, customer lists and items similar in substance are not recognised as intangible assets.

Internally generated goodwill is not recognised as an intangible asset.

Amortisation is provided to write down the intangible assets, on a straight line basis, to their residual values as follows:

ACCOUNTING POLICIES

Item	Useful life
Computer software, other	1 -10 Years

1.6. Subsequent expenditure

Subsequent expenditure on item of property plant and equipment and intangible assets is capitalized only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure is recognised in the Statement of Financial Performance as an expense when incurred.

1.7. Impairment of non-financial assets

Assets are assessed at the end of each reporting period for any indication that they may be impaired. If indication exist, the recovarable amount of the assets is estimated. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount . The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. The NNR assess at each reporting date whether there is any indication that an impairment loss recognised in prior periods for assets may no longer exist or may have decreased. If any such indication exists, the recoverable amounts of those assets are estimated. The increase in carrying amount of assets attributable to a reversal of an impairment loss does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the assets in prior years. A reversal of an impairment loss of assets carried at cost less accumulated depreciation or amortisation is recognised immediately in the statement of financial performance.

1.8. Financial instruments recognition and initial measurement

All financial instruments are initially recognised at fair value, plus, in the case of financial assets and liabilities not at fair value through surplus or deficit, transaction costs that are directly attributable to the acquisition or issue. Financial instruments are recognised when the entity becomes a party to their contractual arrangements. All regular way transactions are accounted for on settlement date. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the period generally established by regulation or convention in the market place.

Derecognition

Financial assets are derecognised when the contractual rights to receive cash flows have been transferred or have expired or when substantially all the risks and rewards of ownership have passed. All other assets are derecognised on disposal or when no future economic benefits are expected from their use.

Financial liabilities are derecognised when the relevant obligation has either been discharged or cancelled or has expired.

Subsequent measurement

Subsequent to initial recognition, the entity classifies financial assets as 'at fair value through surplus or deficit', 'held-to-maturity investments', 'loans and receivables', or 'available-for-sale'.

ACCOUNTING POLICIES

Gains and losses

Gains or losses arising from changes in financial assets or financial liabilities carried at amortized cost are recognised in Statement of Financial Performance when the financial asset or financial liability is derecognised or impaired, and through the amortisation process.

Financial assets

The NNR classifies its financial assets into one of the categories discussed below, depending on the purpose for which the asset was acquired. The NNR has not classified any of its financial assets as held to maturity, fair value through profit and loss or available for sale.

The accounting policy for each category is as follows:

Loans and receivables

These assets are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They arise principally through the provision of services to licensed holders. They are initially recognised at fair value plus transaction costs that are directly attributable to their acquisition or issue, and are subsequently carried at amortized cost less provision for impairment.

Impairment provisions are recognised when there is objective evidence (such as significant financial difficulties on the part of the counterpart or default or significant delay in payment) that the NNR will be unable to collect all of the amounts due under the terms receivable. Trade receivables, which are reported net of such provisions, are recorded in a separate allowance account with the loss being recognised within operational expenditure in the Statement of Financial Performance. On confirmation that the trade receivable will not be collectable, the gross carrying value of the asset is written off against the associated provision. The loans and receivables comprise trade and other receivables at reporting date.

Cash and cash equivalents.

Cash and cash equivalents comprise cash on hand and other short term highly liquid investments that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value. Cash and cash equivalents include cash on hand and deposits held at call.

Financial liabilities

Bank borrowings are initially recognised at fair value net of any transaction costs directly attributable to the issue of the instrument. Such interest-bearing liabilities are subsequently measured at amortized cost using the effective interest rate method, which ensures that any interest expense over the period to repayment is at a constant rate on the balance of the liability carried in the statement of financial position. Trade payables are initially recognised at fair value and subsequently carried at amortized cost using the effective interest method.

ACCOUNTING POLICIES

1.9. Accounting for leases

A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership to the lessee. A lease is classified as an operating lease if it does not transfer substantially all the risks and rewards incidental to ownership to the lessee.

Finance leases - lessee

Finance leases are recognised as assets and liabilities in the statement of financial position at amounts equal to the fair value of the leased property or, if lower, the present value of the minimum lease payments. The corresponding liability to the lessor is included in the statement of financial position as a finance lease obligation.

The discount rate used in calculating the present value of the minimum lease payments is the interest rate implicit in the lease. The lease payments are apportioned between the finance charge and reduction of the outstanding liability. The finance charge is allocated to each period during the lease term so as to produce a constant periodic rate on the remaining balance of the liability.

Operating leases - lessee

Operating lease payments are recognised as an expense on a straight-line basis over the lease term. The difference between the amounts recognised as an expense and the contractual payments are recognised as an operating lease liability. This liability is not discounted. Any contingent rents are expensed in the period in which they are incurred.

1.10. Employee benefits

Post-employment benefits

The NNR provides defined pension benefit and medical plan to certain qualifying employees. The entity's net obligation in respect of defined benefits is calculated by estimating the amount of future benefits earned in return for services rendered. The obligation and assets related to each of the post-retirement benefits are determined through an actuarial valuation. The assumptions determined by management make use of information obtained from the entity's employment agreements with staff and pensioners, market related returns on similar investments, and market related discount rates and other available information. The assumptions concerning the expected return on asset and expected change in liabilities are determined on a uniform basis, considering long-term historical returns and future estimates of returns and medical inflation expectations. In the event that further changes in assumptions are required, the future amounts of post-retirement benefits may be affected materially. The post-retirement medical liability is unfunded.

The overall expected rate of return on asset is determined based on the market prices prevailing at that date, applicable to the period over which the obligation is to be settled.

The NNR provides a defined contribution plans for all other employees. The post-retirement medical liability is unfunded.

ACCOUNTING POLICIES

Defined contribution plans

The entity's funding of the defined contribution plans is charged to employee expenses in the same year as the related service is provided.

Defined benefit plans

The entity provides defined benefit plans for retirement and post-retirement medical aid benefits to qualifying employees. The entity's net obligation in respect of defined benefits is calculated separately for each plan by estimating the amount of future benefits earned in return for services rendered.

The amount recognised in the statement of financial position represents the present value of the defined benefit obligations, calculated by using the projected unit credit method, as adjusted for unrecognised actuarial gains and losses, unrecognised past service costs, if any, and reduced by the fair value of the related plan assets.

The amount of any gain or loss recognised and reflected as expenses is limited to actuarial losses or gain and past service costs plus the present value of available refunds and reductions in future contributions to the plan. To the extent that there is uncertainty as to the entitlement to the surplus, no asset is recognised. No gain is recognised solely as a result of an actuarial loss or past service cost in the current period and no loss is recognised solely as a result of an actuarial gain or past service cost in the current period. The entity recognises actuarial gains and losses for all its defined plans in the period in which they occur.

Past service costs are recognised immediately to the extent that the benefits are vested, otherwise they are recognised on a straight-line basis over the average period the benefits become vested.

Short-term employee benefits

The cost of all short term employee benefits is recognised during the period in which the employee renders the related service. Provision for employee's entitlement to annual leave represents a present obligation which NNR has to pay as a result of employee's services provided to the reporting date. Annual leave is provided for over the period that the leave accrues.

1.11. Provisions and contingencies

Management judgment is required when recognising and measuring provisions and when measuring contingent liabilities as set out in Note 28. The probability that an outflow of economic resources will be required to settle the obligation must be assessed and a reliable estimate must be made of the amount of the obligation.

The entity is required to recognise provisions for claims arising from litigation when the occurrence of the claim is probable and the amount of the loss can be reasonably estimated. Liabilities provided for legal matters require judgments regarding projected outcomes and ranges of losses based on historical experience and recommendations of legal counsel.

Litigation is however unpredictable and actual costs incurred could differ materially from those estimated at the reporting date.

ACCOUNTING POLICIES

1.12. Commitments

Items are classified as commitments when an entity has committed itself to future transactions that will normally result in the outflow of cash. Discolsure are required in respect of unrecognised contractual commitments. Commitments for which disclosures is necessary to achieve a fair presentation should be disclosed in a note to the financial statements.

1.13. Going concern assumption

The financial statements have been prepared on a going concern assumption that the entity will continue in operation for the foreseeable future.

1.14. Related Parties

Parties are considered to be related if one party has the ability to control the other party or to exercise significant influence or joint control over the other party in making financial and operating decisions.

1.15. Comparative figures

Comparative figures are restated in the event of a change in accounting policy or prior period error.

1.16. Irregular, fruitless and wasteful expenditure

Irregular expenditure means expenditure incurred in contravention of, or not in accordance with, a requirement of any applicable legislation, including the PFMA. Fruitless and Wasteful expenditure means expenditure that was made in vain and would have been avoided had reasonable care been exercised. All irregular, and fruitless and wasteful expenditure is charged against income in the period in which it is incurred.

1.17. Foreign currencies

Transactions in foreign currencies are accounted for at the rates of exchange ruling on the date of the transactions. Gains and losses arising from the settlement of such transactions are recognised in the income statement.

1.18. Interest received

Interest is recognised on a time proportionate basis taking into account the principal amount outstanding and the effective interest rate.

1.19. Budget information

GRAP 1, Presentation of Financial Statements, requires entities to provide information on their actual performance against the entity's approved budget. A reconciliation to ensure full compliance with GRAP 1 is included as a disclosure note to the financial statements.

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

2. Basis of preparation

The annual financial statements have been prepared in accordance with Standards of Generally Recognised Accounting Practice on a basis consistent with the prior year.

3. New standards and interpretations

In the current financial year the entity has not adopted any new standards and interpretations that are active for the current financial year, and that are relevant to its operations.

4. Property, plant and equipment

	2023			2022		
	Cost/ Valuation	Accumulated depreciation and accumulated impairment	Carrying value	Cost/ Valuation	Accumulated depreciation and accumulated impairment	Carrying value
Land	213 750	-	213 750	213 750	-	213 750
Buildings	122 478 308	(64 377 894)	58 100 414	122 692 058	(58 498 091)	64 193 967
Buildings - improvements (WIP)	16 916 573	-	16 916 573	2 682 421	-	2 682 421
Furniture and fixtures	6 040 457	(3 163 184)	2 877 273	5 725 664	(2 869 593)	2 856 071
Motor vehicles	906 438	(838 281)	68 157	906 438	(753 645)	152 793
Office equipment	6 470 351	(5 525 502)	944 849	6 478 387	(5 253 053)	1 225 334
IT equipment	21 964 469	(15 315 359)	6 649 110	23 856 757	(13 646 451)	10 210 306
Leasehold improvements	5 343 134	(5 299 151)	43 983	5 343 134	(5 284 490)	58 644
Laboratory equipment	21 387 528	(12 554 607)	8 832 921	20 838 272	(11 680 788)	9 157 484
Total	**201 721 008**	**(107 073 978)**	**94 647 030**	**188 736 881**	**(97 986 111)**	**90 750 770**

Reconciliation of property, plant and equipment - 2023

	Opening balance	Additions	Disposals	Depreciation	Total
Land	213 750	-	-	-	213 750
Buildings	64 193 967	-	-	(6 093 553)	58 100 414
Buildings - improvements (WIP)	2 682 421	14 234 152	-	-	16 916 573
Furniture and fixtures	2 856 071	387 783	(21 018)	(345 563)	2 877 273
Motor vehicles	152 793	-	-	(84 636)	68 157
Office equipment	1 225 334	159 374	(147)	(439 712)	944 849
IT equipment	10 210 306	664 916	(104 954)	(4 121 158)	6 649 110
Leasehold improvements	58 644	-	-	(14 661)	43 983
Laboratory equipment	9 157 484	549 256	-	(873 819)	8 832 921
	90 750 770	**15 995 481**	**(126 119)**	**(11 973 102)**	**94 647 030**

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

Reconciliation of property, plant and equipment - 2022

	Opening balance	Additions	Disposals	Other changes, movements	Depreciation	Total
Land	213 750	-	-	-	-	213 750
Buildings	69 964 541	310 500	-	141	(6 081 215)	64 193 967
Buildings - improvements (WIP)	2 682 421	-	-	-	-	2 682 421
Furniture and fixtures	3 201 866	26 807	(20 174)	235	(352 663)	2 856 071
Motor vehicles	270 208	-	-	-	(117 415)	152 793
Office equipment	1 282 467	257 297	(112)	163 632	(477 950)	1 225 334
IT equipment	10 133 752	3 832 028	(70 038)	189 425	(3 874 861)	10 210 306
Leasehold improvements	-	-	-	170 594	(111 950)	58 644
Laboratory equipment	9 235 639	685 003	(120)	84 548	(847 586)	9 157 484
	96 984 644	**5 111 635**	**(90 444)**	**608 575**	**(11 863 640)**	**90 750 770**

The cumulative expenditure recognised in the carrying value of property, plant and equipment as Work In Progress (WIP) is disclosed per class of asset, in aggregate, as follows:

Buildings - improvements (WIP)	16 916 573	2 682 421

The NNR owns an office building located at Erf 3078 in Highveld, Centurion, Gauteng and land and building located at Erf 3187 in Melkbosch Strand in the Blaauberg Municipality, Western Cape

Other information

A review of the useful economic life of property, plant and equipment, and intangible assets was performed during the year. There were no changes in affecting the current period.

Effect of change in accounting estimate on current and future periods:

Statement of financial performance		
Decrease in depreciation and amortisation	-	(682 107)
Statement of financial position		
Decrease in accumulated depreciation	-	682 107
Repairs and maintenance		
Total expenditure incurred on repair and maintanance for property, plant and equipment	1 968 877	2 376 119

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

5. Intangible assets

	2023			2022		
	Cost/ Valuation	Accumulated amortisation and accumulated impairment	Carrying value	Cost/ Valuation	Accumulated amortisation and accumulated impairment	Carrying value
Computer software, other	5 292 614	(3 777 087)	1 515 527	4 632 528	(3 673 075)	959 453

Reconciliation of intangible assets - 2023

	Opening balance	Additions	Amortisation	Total
Computer software, other	959 453	858 347	(302 273)	1 515 527

Reconciliation of intangible assets - 2022

	Opening balance	Additions	Other changes, movements	Amortisation	Total
Computer software, other	1 122 286	362 225	73 533	(598 591)	959 453

6. Operating leases

Current liabilities		(1 085 367)	(662 416)

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

7. Employee benefit obligations

The National Nuclear Regulator has retirement employee benefit obligations which consists of:

- Post retirement pension benefit plan
- Post retirement medical benefit plan
- Defined pension contribution

The amounts recognised in the statement of financial position are as follows:

Carrying value		
Present value of the defined benefit obligation-wholly unfunded	(9 114 837)	(9 253 344)
Present value of the defined benefit obligation-partly or wholly funded	(55 206 452)	(58 567 000)
Fair value of plan assets	62 615 796	70 386 000
Asset not recognised	(7 409 344)	(11 819 000)
	(9 114 837)	**(9 253 344)**
The major categories of plan assets as a percentage of total plan assets are as follows:		
South African equities	70,00%	70,00%
Bonds	30,00%	30,00%
Changes in the present value of the defined benefit obligation are as follows:		
Opening balance	(4 677 101)	(4 952 404)
Net expense recognised in the statement of financial performance	(138 507)	275 303
	(4 815 608)	**(4 677 101)**
Net expense (gain) recognised in the statement of financial performance		
Current service cost	15 187	21 690
Interest cost	907 069	1 085 585
Actuarial (gains) losses	(374 689)	53 249
Expected return on plan assets	(686 074)	(885 221)
	(138 507)	**275 303**
Actual return on plan assets		
Expected return on plan assets	6 784 767	5 119 000
Actuarial (gains) losses - plan assets	(9 622 665)	5 212 000
	(2 837 898)	**10 331 000**
Calculation of actuarial gains and losses		
Actuarial (gains) losses-Obligation	(4 127 004)	1 459 000
Actuarial (gains) losses-Plan assets	(9 622 665)	5 212 000
	(13 749 669)	**6 671 000**

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

7.1. Post Retirement Pension Benefit Plan

The NNR makes contributions torwards post retirement pension benefits for certain eligible employees.

Changes in present value of the defined benefits are as follows:		
Opening balance	58 567 000	57 222 000
Interest cost	5 609 467	4 506 000
Current service cost	89 883	301 000
Benefits paid	(4 932 893)	(4 921 000)
Actuarial (gains) losses	(4 127 004)	1 459 000
Closing balance	**55 206 453**	**58 567 000**

Changes in fair value of plan assets are as follows:		
Opening balance of fair value of plan assets	70 386 587	64 703 000
Expected return on plan assets	6 784 767	5 119 000
Contribution by employer	-	273 000
Contribution by participants	-	67 000
Benefits paid	(4 932 893)	(4 921 000)
Actuarial (gains) losses	(9 622 665)	5 145 000
	62 615 796	**70 386 000**

Key assumptions used

Assumptions used at the reporting date:

Discount rates used	10,33%	10,00%
Expected rate of return on assets	10,33%	10,00%
Expected rate of return on reimbursement rights	5,79%	6,25%
Actual return on reimbursement rights	-%	7,25%
Funding level	100,0	100,0

Discount rate assumption

The discount rate required by GRAP 25 should be set with reference to the market yield on government bond. We have set the discount rate by using the avarege yields from the Nominal Zero Bond yield curve for SA government bonds with a duration of between 5 and 10 years as at 31 March 2023. The recomended discount rate is 10,33%. The source of the yield curve is the Johannesburg Stock Exchange through IRESS date service. We have not made any adjustments for inflation risk premium that may be present in the pricing of nominal bonds.

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

Expected return on plan assets assumption

The assumption used for expected return on plan assets is the same as the one used for the discount rate. It is set with reference to the market yield on government bond. We have set the discount rate by using the avarege yields from the Nominal Zero Bond yield curve for SA government bonds with a duration of between 5 and 10 years as at 31 March 2023. The recomended discount rate is 10,33%. The source of the yield curve is the Johannesburg Stock Exchange through IRESS date service. We have not made any adjustments for inflation risk premium that may be present in the pricing of nominal bonds.

Sensitivity analysis

One percentage point increase

Effect on defined benefit obligation-Discount rate	(3 614 000)	(4 103 000)
Percentage change effect on defined benefit obligation-Discount rate	(7)	(7)
Effect on defined benefit obligation-salary inflation	-	(63 000)
		PA (90)
Effect on defined benefit obligation-Post-retirement mortality	(1 885 000)	(2 048 000)
Percentage change effect on defined benefit obligation-Post-retirement mortality	(4)	(3)

7.2. Post-retirement medical aid benefit obligation

The NNR has made provision for post-employment medical benefit covering one (1) employee in active employement and seven pensioners. The actuarial valuation was determined by One Pangaea Expertise & Solutions, an independent actuary registered with Actuary Society of South Africa. Valuation has been performed in accordance with GRAP 25.

The NNR makes certain contributions to medical funds in respect of current and retired employees. The NNR has terminated future post-retirement medical aid benefits in respect of employees joining after 31 December 1995.The NNR has an obligation to pay 100% of the membership subscriptions for staff members who had retired from the services of the NNR or then (The Council for Nuclear Safety) on or before 30 July 1990 and also for those staff members retiring from the services of the NNR on or after 1 July 1990, who were in the continuous employment of the NNR before 01 July 1990 to the date of retirement. The NNR introduced a sliding scale for membership subscriptions for staff joining after 1 July 1990. Subsidy reduced step wise from 100% to a minimum of 60% for employees that joined the NNR after 1 July 1990 and 31 December 1995. Eligible employees must be employed by the NNR until retirement age to qualify for the post-retirement medical aid benefit. The most recent actuarial valuation of the benefit was performed as at 31 March 2023.

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022
Changes in present value of the defined benefits are as follows:			
Opening defined benefit obligation		9 253 344	8 978 041
Current service cost		15 187	21 690
Interest cost		907 069	1 085 585
Benefits paid		(686 074)	(885 221)
Actuarial (gains) losses		(374 689)	53 249
		9 114 837	**9 253 344**
Actuarial principal assumption used at the reporting date			
Discount rate used		11%	10%
Medical inflation rate		8%	8%
General inflation rate		6%	6%
Post-retirement interest rate		3%	2%
Proportion of continuing membership at retirement		100%	100%
Proportion of retiring members who are married		90%	90%
In service members			
Age of spouse (Husbands: three years older than wives)		65	65
Mortality of in-service members		SA SA85-90 (L)-3	SA SA85-90 (L)-3
Mortality of continuation members post retirement		PA (90)-2 Years	PA (90)-2 Years
Number of members			
Number of members in active employment		1	2
Number of pensioners		7	6
		8	**8**
Average retirement age		60	60

The most significant assumptions are those relating to the discount rate and medical inflation. It is the relationship between these assumptions that is important for the purpose of the calculations rather than their absolute values. Assumed healthcare cost trends rates have a significant effect on the amounts recognised in surplus or deficit. A one percentage point change in assumed healthcare cost trends rates would have the following effects:

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022
Sensitivity Analysis			
One percentage point increase			
Effect on the aggregate of the service cost and interest cost		362 224	373 533
Effect on defined benefit obligation		9 477 061	9 626 877
Effect on the aggregate of the service cost and interest cost discount rate		(523 291)	(668 212)
Defined benefit obligation discount rate		8 591 546	8 585 132
Percentage change effect on defined benefit obligation discount rate		1	1

Amounts for the current and previous four years are as follows:

	2023	2022	2021	2020	2019
Defined benefit obligation	9 114 837	9 253 344	8 978 041	9 392 438	8 708 245
Experience adjustments on plan liabilities	(201 286)	519 234	253 234	(905 463)	298 570

7.3. Defined contribution plan

It is the policy of the entity to provide retirement benefits to all it's employees. A defined contribution pension fund, which is subject to the rules of the fund and to the Pensions Fund Act exists for this purpose.

The entity is under no obligation to cover any unfunded benefits.

The amount recognised as an expense for defined contribution plans is	21 796 846	20 025 633

8. Receivables from exchange transactions

Trade receivables	3 798 613	1 596 542
Staff advance	27 129	23 217
Deposits and prepayments	682 297	709 196
Other receivables	79 445	174 127
	4 587 484	**2 503 082**

Trade receivables past due but not impaired

Trade receivables which are less than a year past due are not considered to be impaired. At 31 March 2023, R3 798 613 (2022: R1 596 542) were past due but not impaired.

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

The ageing of amounts past due but not impaired is as follows:

Current	2 381 069	12 312
1 month past due	-	16 215
2 months past due	-	8 030
3 months past due	101 604	-
6 months past due	34 954	-
12 months past due	1 280 986	1 559 985

Trade receivables impaired

As of 31 March 2023, trade receivables of R25 804 431 (2022: R27 917 191) were impaired and provided for.

The ageing of these debtors are as follows:

Over 12 months	25 804 431	27 917 191
Reconciliation of provision for impairment of trade receivables		
Opening balance	27 917 191	19 510 105
Provision for impairment	-	8 407 086
Provision for impairment (recoveries)	(2 112 760)	-
	25 804 431	**27 917 191**
Reconciliation of trade receivables		
Trade receivables before impairment	29 603 044	29 513 733
Provision for impairment	(25 804 431)	(27 917 191)
Total trade receivables after impairments	**3 798 613**	**1 596 542**

The creation and release of provision for impaired receivables have been included in operating expenses in surplus or deficit (refer to note 21). Amounts charged to the allowance account are generally written off when there is no expectation of recovering the amount. The NNR's policy is to provide for impairment on receivables which are more than 365 days outstanding. Interest on outstanding debt, over 30 days after the issuance of invoice, is calculated on the daiy balance owing and compounded monthly. The interest rate is determined by the Minister of Finance interms of section 80 of the PFMA 1999, (Act no. 1 of 1999).

9. Receivables from non-exchange transactions

Other receivables from non-exchange revenue	509 783	632 593

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

10. Cash and cash equivalents

Cash and cash equivalents consist of:

Cash on hand	4 780	759
Bank balances	1 213 533	2 210 335
Short-term deposits	167 183 003	139 703 721
	168 401 316	**141 914 815**

11. Unspent conditional grants and receipts

Unspent conditional grants and receipts comprises of:

Unspent conditional grants and receipts		
Government grant	-	12 893 618
Movement during the year		
Balance at the beginning of the year	12 893 618	13 710 309
Additions during the year	78 863	-
IAEA sponsorship funds - refund (unutilised funds)	-	(20 280)
Income recognition during the year	(12 972 481)	(796 411)
	-	**12 893 618**

The construction of Cape Town office building has since started and is expected to be completed in the third quarter of the 2023/24 financial year hence the utilisation of all conditional grant.

12. Other financial liabilities

At Compensation cost		
Mortgage bond	-	2 613 674
Non-current liabilities		
At Compensation cost	-	-
Current liabilities		
At Compensation cost	-	2 613 674

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

13. Provisions

Reconciliation of provisions - 2023

	Opening Balance	Additions	Utilised during the year	Reversed during the year	Total
Annual Leave	9 108 881	4 322 810	(4 261 196)	-	9 170 495
Annual performance bonus	23 714 295	19 539 980	(20 110 499)	(3 603 795)	19 539 981
	32 823 176	**23 862 790**	**(24 371 695)**	**(3 603 795)**	**28 710 476**

Reconciliation of provisions - 2022

	Opening Balance	Additions	Utilised during the year	Reversed during the year	Total
Annual Leave	8 906 801	6 252 555	(6 050 475)	-	9 108 881
Performance Bonus	11 137 223	23 714 295	(21 359 442)	10 222 219	23 714 295
	20 044 024	**29 966 850**	**(27 409 917)**	**10 222 219**	**32 823 176**

Provision for annual leave

The leave provision represents management's best estimate of the NNR's liability for leave based on the NNR's approved leave policy. Leave provision represents the amount due to employees for unutilised leave days accrued for services rendered to the NNR as of 31 March 2023.

Performance bonus

Performance bonus represents management's best estimate of bonus potentially payable to qualifying NNR employees who signed the performance agreement with the NNR for financial year ending 31 March 2023. Performance target is set by the Board at the beginning of each financial year, and employees' performance scores are linked to the overall performance of the NNR. Management has reasonably provided for a bonus in accordance with bonus payment of the 2021/22 financial year at an average individual payout rate of 12% of total cost to company. The payment of bonus is discretionary in terms of the NNR policy and is only due and payable after declaration and approval by the Board.

14. Payables from exchange transactions

Trade payables	5 932 284	5 134 206
Accruals - Trade Creditors	4 471 760	1 223 620
Accruals - Staff Accounts	117 990	972 885
13th Cheque accrual	1 758 225	1 718 133
	12 280 259	**9 048 844**

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

15. Revenue

Authorisation fees	223 035 192	210 427 477
Application fees	26 623 412	25 402 111
Interest on overdue debtors	267 762	104 949
Actuarial gain	138 507	-
Other income	3 168 936	882 921
Interest received	14 078 774	8 223 436
Government grants	47 308 000	46 089 000
Deferred income	12 972 481	796 411
	327 593 064	**291 926 305**

The amount included in revenue arising from exchanges of goods or services are as follows:

Authorisation fees	223 035 192	210 427 477
Application fees	26 623 412	25 402 111
Interest on overdue debtors	267 762	104 949
Actuarial gain	138 507	-
Other income	3 168 936	882 921
Interest received	14 078 774	8 223 436
	267 312 583	**245 040 894**

The amount included in revenue arising from non-exchange transactions is as follows:

Transfer revenue

Government grants	47 308 000	46 089 000
Deferred income	12 972 481	796 411
	60 280 481	**46 885 411**

16. Government grants

Operating grants

Government grant	47 308 000	46 089 000

Unconditional

Unconditional grants received	47 308 000	46 089 000

Conditional grant

Balance unspent at beginning of year	12 893 618	13 710 309
IAEA sponsorship funds	78 863	-
Conditions met - transferred to revenue	(12 972 481)	(796 411)
IAEA sponsorship funds - refund	-	(20 280)
	-	**12 893 618**

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

17. Other income

Other sundry income	1 016 171	843 991
Provision for impairment (recoveries)	2 112 760	-
Bad debts recovered	40 005	38 929
	3 168 936	**882 920**

18. Goods and services

Advertising	952 760	838 402
Property rates & municipal charges	2 104 930	2 034 053
Auditor's fees	2 220 743	2 591 634
Cleaning	843 697	861 457
Consulting and professional fees	17 337 432	20 614 740
Consumables	857 569	551 124
Insurance	490 045	597 463
Community development and training	1 880 561	313 561
Conferences and seminars	637 486	118 460
IT expenses	5 429 808	5 007 243
Postage and courier	423 992	138 255
Printing and stationery	2 426 855	1 384 548
Security	1 977 525	2 021 192
Software expenses	5 603 008	4 866 476
Subscriptions and membership fees	2 369 385	2 136 518
Telephone and fax	1 398 172	1 701 530
Training	1 529 003	1 615 352
Travel - local	6 595 542	3 445 598
Travel - overseas	3 076 425	401 428
Electricity	1 481 054	1 561 206
Repairs & Maintenance	2 154 478	2 376 119
Board fees	1 217 488	1 406 357
Bursaries	903 486	889 070
Other expenses	3 101 451	4 815 200
	67 012 895	**62 286 986**

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

19. Operating Surplus/(Deficit)

Operating Surplus/(Deficit) for the year is stated after accounting for the following:

Operating lease charges		
Premises		
• Contractual amounts	4 291 188	4 247 982
Equipment		
• Contractual amounts	401 249	468 834
	4 692 437	**4 716 816**
Depreciation and Amortisation on property, plant and equipment and intangibles	12 275 376	11 780 123
Employee costs	194 560 815	202 056 065
Defined contribution funds	21 796 846	20 025 633
Defined benefit funds	85 642	229 813

20. Employee related costs

Basic Salary	90 574 894	102 078 405
Performance Bonus	20 110 499	21 359 442
Medical aid	6 277 183	5 823 423
UIF	714 634	695 032
Workmen's compensation fund	176 841	180 544
SDL	1 752 764	1 653 545
PAYE	53 071 512	50 010 228
Pension fund-Defined benefit plan	85 642	229 813
Pension fund-Defined contribution plan	21 796 846	20 025 633
	194 560 815	**202 056 065**

21. Debt impairment

Contributions to debt impairment provision	-	8 407 086
Bad debts written off	-	398 796
	-	**8 805 882**

22. Interest received

Interest revenue		
Short-term deposits	14 078 774	8 223 436

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

23. Finance costs

Non-current borrowings	46 633	652 568

24. Auditor's' fees

Fees	2 220 743	2 591 634

25. Cash generated from operations

Surplus	49 004 908	1 352 562
Adjustments for:		
Depreciation and amortisation	12 275 376	11 780 123
Movements in operating lease assets and accruals	422 951	664 856
Movements in post retirement obligation	(138 507)	275 303
Movements in provisions	(4 112 700)	12 779 152
(Profit) Loss on assets written off	55 896	20 023
Proift on disposal of assets	(4 806)	(14 043)
Donation	(484 358)	-
Deferred Income	(12 893 617)	(796 411)
Changes in working capital:		
Receivables from exchange transactions	(2 084 401)	31 075 128
Other receivables from non-exchange transactions	122 810	(534 761)
Payables from exchange transactions	3 231 415	(2 199 125)
Other payable from non exchange transaction	(345)	(168 939)
Unspent conditional grants and receipts	-	(816 691)
	45 394 622	**53 417 177**

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

26. Commitments

Capital Commitments

Already contracted for but not provided for

Property, plant and equipment	39 521 858	42 294 487
Total capital commitments		
Already contracted for but not provided for	39 521 858	42 294 487

Operational commitments

Already contracted for but not provided for

Leases	19 505 285	20 336 525
Other	14 785 692	18 758 016
	34 290 977	**39 094 541**
Total operational commitments		
Already contracted for but not provided for	34 290 977	39 094 541

Total commitments

Total commitments

Capital commitments	39 521 858	42 294 487
Operational commitments	34 290 977	39 094 541
	73 812 835	**81 389 028**

This committed expenditure relates to plant and equipment, and operational expenditure commitments, mainly for the construction of the Cape Town Office, leasing of office and lab space and technical support organisational that will be financed by available retained cash tsurpluses and existing cash resources.

Operating leases - as lessee (expense)

Minimum lease payments due

• within one year	4 620 614	4 263 619
• in second to fifth year inclusive	9 838 888	8 749 015
• later than five years	5 045 783	7 323 891
	19 505 285	**20 336 525**

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

27. Contingencies

27.1 The NNR has an outstanding matter at the CCMA pertaining to an employee who was dismissed and is challenging the dismisal as being unfair. The entity is defending a demand of R850 000 requested for settlement.

27.2 The NNR has an outstanding matter at the Supreme Court of Appeal pertaining to the Board member who was discharged and matter is been challenged. The estimated legal fees for the matter is R 1 218 062.

27.3 The National Nuclear Regulator expects to retain surpus funds realised in the 2022/23, upon approval by National Treasury, in accordance with National Treasury Instruction No. 12 of 2020/2021. This amount is estimated at R86 163 015.

28. Related parties

Directors	Refer to Directors' report note
Ultimate controlling entity	Department of Mineral Resources and Energy
Executive Authority	Minister of Mineral Resources and Energy
Entities ultimately under common control	National Nuclear Corporation of South Africa (Necsa)
	National Energy Regulator of South Africa (NERSA)
	South Africa National Energy Development Institute (SANEDI)
	National Radioactive Waste Disposal Institute (NRWDI)
	The Petroleum, Oil, Gas Corporation of South Africa (PetroSA)
	Central Energy Group Fund (CEF)(Pty)Ltd
	Council for Mineral Technology (Mintek)
	Council for Geoscience (Geoscience)
	Mine Health and Safety Council (MHSC)
	Petroleum Agency South Africa (PASA)
	African Exploration Mining and Finance Corporation (AEMFC)
	South Africa Diamond & Precious Metals Regulator (SADPMR)
	State Diamond Trader
Post-retirement pension for employees	NNR Pension Fund
Members of key management	Ms. D. Kgomo (CEO)
	Ms. A. Simon (Executive:CSS)
	Mr. O. Phillips (Executive: NPP)
	Ms. L. Mpete (Executive: RITS)
	Dr. B. Tyobeka (CEO - resigned 31 May 2022)
	Mr. D. Netshivhazwaulu (CFO - resigned 31 January 2023)
	Mr. T Pather (Acting Executive: NTN)
	Mr. R Nemaungani (Acting CFO)

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022
Related party transactions			
Amount included in trade receivable/(trade payable) regarding related parties			
NECSA		(172 658)	-
MINTEK		4 273	1 697
Services rendered to related party			
NECSA		60 399 362	57 198 471
NRWDI		559 440	970 200
MINTEK		67 713	69 387
Government transfer			
Department of Mineral Resources and Energy		47 308 000	46 089 000
Services from related party			
NECSA		(435 904)	(868 916)
Other			
NNR Pension Fund		21 882 488	20 255 446

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

29. Executive and directors' emoluments

Executive
2023

	Basic Salary	Performance Bonus	Other	Total
Ms. D Kgomo (CEO)*	2 421 239	227 556	-	2 648 795
Dr. B Tyobeka (CEO)**	461 962	330 137	178 970	971 069
Mr. D Netshivhazwaulu (CFO)***	1 735 193	302 204	239 980	2 277 377
Mr. R Nemaungani (Acting CFO)****	238 511	-	-	238 511
Ms. A Simon (Executive: CSS	2 036 185	294 738	-	2 330 923
Mr. O Phillips (Executive: NPP)	2 172 115	314 414	-	2 486 529
Ms. L Mpete (Executive: RITS)	1 965 073	284 445	-	2 249 518
Mr. T Pather (Acting Executive: NTN)*****	912 594	-	-	912 594
	11 942 872	**1 753 494**	**418 950**	**14 115 316**

2022

	Basic Salary	Performance Bonus	Total
Dr. B Tyobeka (CEO)	2 751 139	550 228	3 301 367
Mr. D Netshivhazwaulu (CFO)	1 951 441	282 672	2 234 114
Ms. A Simon (Executive: CSS)	1 871 168	348 348	2 219 516
Ms. D Kgomo (Executive: NTN)	1 868 274	186 827	2 055 101
Mr. O Phillips (Executive: NPP)	2 065 116	413 023	2 478 140
Ms. L Mpete (Executive: RITS)	1 868 273	280 241	2 148 514
	12 375 411	**2 061 339**	**14 436 752**

** Appointed acting CEO from 01 June 2022 and permanent CEO from 01 November 2022.*
*** Resigned on 31 May 2022.*
**** Resigned on 31 January 2023.*
*****Appointed acting CFO from 01 February 2023.*
******Appointed acting Executive: NTN from 01 November 2022.*

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

Directors

2023

	Directors' fees	Total
Dr. T Motshudi (Chairperson)	226 254	226 254
Ms. PD Peta (Deputy Chairperson)	196 607	196 607
Mr. P Phili	221 459	221 459
Ms. LN Dlamini	118 208	118 208
Dr. NZ Qunta	176 043	176 043
Ms. V Miya	79 045	79 045
Mr. MA Mosia	170 273	170 273
	1 187 889	**1 187 889**

CNSS Panel Members	Members' Fees	Total
Mr. JC Repussard	10 792	10 792
Dr. HM Sithole	5 396	5 396
Dr. A Pautz	10 792	10 792
Mr. F van Niekerk	2 619	2 619
	29 599	**29 599**

2022

	Directors' fees	Total
Dr. T. Motshudi (Chairperson)	219 660	219 660
Ms. PD Peta (Deputy Chairperson)	197 223	197 223
Mr. P Phili	191 706	191 706
Ms. LN Dlamini	127 602	127 602
Mr. DM Mamphita	131 490	131 490
Mr. BP Petlane	161 814	161 814
Dr. NZ Qunta	167 847	167 847
Ms. V Miya	74 034	74 034
Mr. MA Mosia	32 454	32 454
Mr. P Becker	72 846	72 846
	1 376 676	**1 376 676**

CNSS Panel Members	Members' Fees	Total
Ms. KE Chiloane	10 476	10 476
Mr. JC Repussard	10 476	10 476
Dr. HM Sithole	10 476	10 476
	31 428	**31 428**

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

30. Risk management

Financial risk management

The entity's activities expose it to a variety of financial risks: fair value interest rate risk, cash flow interest rate risk, price risk and credit risk.

The entity's overall risk management programme focuses on the unpredictability of liquid cash and seeks to minimise potential adverse effects on the entity's financial performance. Risk management is carried out by executive committee of the NNR under policies approved by the accounting authority. Entity finance division identifies, evaluates and hedges financial risks in close co-operation with the entity's audit and risk management committee. The accounting authority provides written principles for overall risk management, as well as written policies covering specific areas, such as, interest rate risk, credit risk.

Liquidity risk

Prudent liquidity risk management implies maintaining sufficient cash. The NNR's primary source of funding is authorisation fee which are gazetted in terms of section 28 of the National Nuclear Act,1999, (Act No. 47 of 1999). The NNR maintains liquidity by collecting and paying within 30 days and by limiting capital and operational expenditure within the pre-approved budget. Impairment rate for the year as reported on Note 8 was 11,57% (13,27% - 2021/22) against the total Authorisation Fees recognised on the Statement of Financial Performance. Payables for the year was 4,41% (3,11% - 2021/22) against the total expenditure. The NNR maintained a positive cash balance of R168 401 316 compared to R141 914 815 of the previous financial year.

Credit risk

Credit risk consists mainly of cash deposits, cash equivalents, and trade debtors.

Trade receivables comprises of license and certificate holders by major reputable mining and scrap metal companies. Management evaluate credit risk relating to each license or certificate holder on an ongoing basis and continuously implement a strict collection terms. There is no independent crediting ratings, risk control assesses the credit quality of customers, taking into account financial position, past experience and other factors before a license or certificate can be granted. Impairment rate for the year as reported on Note 8 was 11,57% (13,27% - 2021/22) against the total Authorisation Fees recognised on the Statement of Financial Performance.

Trade receivables past due but not impaired

Trade receivables which are less than a year past due are not considered to be impaired. At 31 March 2023 - R3 798 613 (2022: R1 596 542) were past due date but not impaired.

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

The ageing of amounts past due date but not impaired is as follows:

Current	2 381 069	12 312
1 month past due	-	16 215
2 months past due	-	8 030
3 months past due	101 604	-
6 months past due	34 954	-
12 months past due	1 280 986	1 559 985

Trade receivables impaired

As of 31 March 2023, trade receivables of R25 804 431 (2022: R27 917 191) were impaired and provided for.

The ageing of these receivables is as follows:

Over 12 months	25 804 431	27 917 191

Provision for impairment of trade receivables is estabilished when there is objective evidence that the NNR will not be able to collect all amounts due according to the original terms of receivables. The calculation of the amount to be provided for impairment of receivables requires the use of estimates and judgements.

In terms of the National Nuclear Regulator Act 1999, Act 47 of 1999, section 29(2), the Minister (DMRE) must, on recommendation of the Board and in consultation with the Minister of Finance and by notice in the Gazette, determine the level of financial security to be provided by holders of nuclear installation licenses in respect of each of the various nuclear installation license categories. There was no requirement for license holder to provide any financial securities in the period under review.

Interest rate risk

As the entity has no significant interest-bearing assets, the entity's income and operating cash flows are substantially independent of changes in market interest rates.

Cash flow interest rate risk

Price risk

NNR's exposure to price risk is minimal as NNR determines authorisation fees based on cost recovery principle, time spent and effort required for each of the authorisations holders which are gazetted in terms of section 28 of the National Nuclear Act,1999, (Act No. 47 of 1999)

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

31. Going concern

The annual financial statements have been prepared on the basis of accounting policies applicable to a going concern. This basis presumes that funds will be available to finance future operations and that the realisation of assets and settlement of liabilities, contingent obligations and commitments will occur in the ordinary course of business.

32. Irregular Expenditure and Fruitless and wasteful expenditure

Irregular Expenditure	-	22 264

No Irregular expenditure and fruitless and wasteful expenditure was incurred during the 2022/23 financial year. The balance of R22 264 for Irregular expenditure for 2021/22 financial year is not yet finalised.

The disclosure of the Irregular expenditure and fruitless and wasteful expenditure is as per National Treasury Instruction No. 4 of 2022/23 (PFMA Compliace and Reporting Framework) issued on 23 December 2023 and takes effect from 03 January 2023.

33. Reconciliation between budget and statement of financial performance

Reconciliation of budget surplus/deficit with the surplus/deficit in the statement of financial performance:

Net surplus per the statement of financial performance	49 004 908	1 352 562
Adjusted for:		
Provision for doubtful debts	-	8 805 881
Actuarial gain/loss	(138 507)	275 303
Variance on authorisation fees	226 646	456 856
Variance on other income	6 697 409	15 527 175
Variance on compensation	17 656 750	16 701 159
Variance on goods and services	(34 878 165)	(28 024 085)
Variance on depreciation	(3 460 718)	1 138 373
Variance on finance cost	-	(637 432)
Variance on capital expenditure	(31 615 140)	(14 758 122)
Variance on investment income	(3 493 183)	(837 670)
Net surplus per approved budget	**-**	**-**

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

34. Budget differences

Material differences between budget and actual amounts

34.1. Authorisation fees

The actual revenue received from authorisation fees for the period under review, amounted to R223,0 million against the budget of R223,2 million which result in a slight variance of 0,1% under the budget.

34.2. Application fees

The actual revenue received from application fees is below the budgeted revenue by 45,6%. A total of R26,6 million was realised, compared to a budget of R48,9 million, for the period under review. The variance between projected and actual revenue is attributed to unpredictable number of applications and associated quantum at planning period.

34.3. Other Income

The actual revenue received from other income is more that budget by 299% for the period under review. The variance can be mainly attributed to provision for doubtful debt recoveries and lower projections of the revenue during budget adjustment. Total revenue for the year amounted to R3,1 million, compared to a budget of R794 000.

34.4. Interest received

The actual revenue received from Interest received is more than the budget by 33% for the period under review. This variance is attributed to the consistent positive cash balance on the investment accounts and the increase in interest rates by the South Africa Reserve bank monetary committee.

34.5. Compensation of employees

The actual expenditure on compensation of employees is 9,9% over the budgeted compensation of employees for the period under review. Total expenditure amounted to R194 million against a budget of R176 million. The variance is attributed to payment of performance bonus that was not budgeted for in the current financial year but provided for in the previous financial year and paid from the balance sheet.

34.6. Goods and services

The actual expenditure on goods and services is 33,98% below the budgeted goods and services. Total expenditure amounted to R67 million compared to the annual budget of R103 million. This can partly be attributed to the low spending in consultation, seminars, Training and traveling expenses for both local and foreign activities. This was also caused by the suspension of procurement transactions above R30 000 by National Treasury, following the Constitutional Court rulling in February 2022.

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

34.7. Capital expenditure

Total budget for capital expenditure for the period under review amounted to R31,6 million. The bulk of the budget was earmarked for the building improvement for Head Office building. The underspending for capital expenditure can be attributed to the delay in appointment of service provider.

34.8. Interest on overdue debtors

The NNR charge interest on debtors that fail to settle the account within 30 days after the issuing of invoices. Interest on overdue debtors amounted to R267 000 at the end of March 2023. The NNR does not budget for the line item.

34.9. Depreciation and Amortisation

The actual expenditure on depreciation and amortisation is 21,9% below the budgeted depreciation and amortisation. The variance of R3,4 million can be attributed in delay in capitalisation of the HO building improvement expenditure and delay in procuring of new PPE.

34.10. Lease rentals on operating lease

Total expenditure on lease rentals on operating lease for the year under review amounted to R4,6 million compared to the budget of R3,5 million. This resulted in a variance of 31,50% over spending. This can be attributed to lower projections due to the uncertainties on the renewal of Cape Town office rental.

34.11. Actuarial gains/losses

Actuarial gains and losses arise from increases or decreases in the value of the NNR's define benefits obligations. This amount is not budgeted for, and is derive from the actuarial valuations performed by an independent actuary.

34.12. Deferred income

Deferred income is not budgeted for hence the 100% variance. This amount of revenue is recognised as and when services are rendered or fund spent from unspent conditional grant.

35. B-BBEE performance

Information on compliance with the B-BBEE Act is included in the annual report under the section titled B-BBEE Compliance Performance Information.

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

Figures in Rand	Note(s)	2023	2022

36. Prior period errors

One licence holder not invoiced in the previous three financial years (2019/20, 2020/21 and 2021/22). This resulted in the understated of the following items in the financial statement .

1. Receivable from exchange transaction
2. Accumulated Surplus
3. Authorisation fees
4. Surplus for the year

The correction of the error(s) results in adjustments as follows:

Statement of financial position	
Receivable from exchange transaction	2 503 082
As original Stated	943 098
Prior period correction	1 559 984
Accumulated Surplus	169 465 300
As original Stated	167 905 316
Prior period correction	1 559 984
Statement of financial performance	
Authorisation fees	210 427 477
As original Stated	209 886 130
Prior period correction	541 347
Surplus for the year	1 352 562
As original Stated	811 215
Prior period correction	541 347

Notes

National Nuclear Regulator

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