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Annual
Report





Cover Illustration

Public engagement, participation and understanding of basic nuclear concepts are essential to the acceptance of nuclear technology at an informed level.

The power of the uranium atom, in its harnessed form, has been re-engineered at Necca to provide industrial and life-giving health solutions. Millions of cancer patients across the globe benefit annually from molybdenum-99, produced at Necca.

Nuclear power is responsible for more than 15% of the world's power supply and already provides 5% of South Africa's power. For our developing and advancing nation it provides an elegant CO₂ mitigation solution to our pressing need for a reliable, environmentally sustainable base load supply in the future.

Whether it is for use in power generation, medicine, industry or agriculture, the atom holds solutions that have not yet been explored. Public awareness is therefore crucial to the understanding and furtherance of nuclear technology; to the realisation that it already plays a crucial role in our lives; and to the awakening of its future potential.

We extend an invitation to you, to visit our newly launched Visitor Centre or log on to our website to learn more about nuclear and discover why "We're in your world".



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The Necsa Mandate

The South African Nuclear Energy Corporation (Necsa) is a public entity established in 1994. It is responsible for the development, production and distribution of nuclear energy in South Africa. Necsa is also responsible for the management of the nuclear fuel cycle, including the enrichment of uranium, the production of nuclear fuel, the operation of nuclear power reactors, and the management of nuclear waste.

Energy in your World

Energy is a vital part of our lives. It powers our homes, our businesses, and our transportation. Without energy, our world would be a very different place. Necsa is committed to providing clean, reliable energy to South Africa and the world.

Business Subsidiaries

Necsa has several business subsidiaries that are responsible for different aspects of the nuclear energy value chain. These include the production of nuclear fuel, the operation of nuclear power reactors, and the management of nuclear waste.



Profile

Mandate

In terms of Section 13 of the Nuclear Energy Act, No. 46 of 1999, the South African Nuclear Energy Corporation Limited (Necsa) is mandated to:

- Undertake and promote research and development in the field of nuclear energy and radiation sciences and technology and, subject to the Safeguards Agreement, to make these generally available;
- Process source material, special nuclear material and restricted material and to reprocess and enrich source material and nuclear material; and
- Co-operate with any person or institution in matters falling within these functions, subject to the approval of the Minister.

Vision

To pursue nuclear technology excellence for sustainable social and economic development.

Mission

To develop, utilise and manage nuclear technology for national and regional socio-economic development through:

- Applied research and development;
- Commercial application of nuclear and associated technology;
- Fulfilling the State's nuclear obligations;
- Contributing to the development of skills in science and technology;
- Total commitment to health, safety and care for the environment;
- Developing and empowering our human resource base; and
- Satisfying stakeholder expectations.

Business

Necsa is a Public Company responsible for undertaking and promoting research and development in the field of nuclear energy and radiation sciences. It is also responsible for processing source material, including uranium enrichment, and co-operating with other institutions, locally and abroad, on nuclear and related matters.

The Company promotes the public understanding of nuclear science and technology and facilitates regular communication with the public and its stakeholders. Apart from its main activities at Pelindaba, which include operation and utilisation of the SAFARI-1 Research Reactor, Necsa also manages and operates the Vaalputs National Radioactive Waste Disposal Facility in the Northern Cape on behalf of the National Radioactive Waste Disposal Institute (NRWDI).

Necsa engages in commercial business mainly through its wholly owned commercial subsidiaries NTP Radioisotopes (Pty) Ltd (NTP), which is responsible for a range of radiation-based products and services for health care, life sciences and industry, and Pelchem (Pty) Ltd (Pelchem), which supplies fluorine and fluorine-based products. Both subsidiaries supply local and foreign markets, earning valuable foreign exchange for South Africa.

necsa
VISITOR CENTRE



Highlights

- NTP, the SAFARI-1 Reactor and the Necsa Fuel Department continued to successfully address the global medical radioisotopes supply crisis.
- As a result of an effective maintenance programme, fully staffed and trained reactor operations group, and the implementation of a reactor ageing management programme, the SAFARI-1 Reactor achieved its best ever operational availability of 101.1% against scheduled availability, at an average reactor power of 19.44 Megawatt (MW).
- In line with its core research and development (R&D) mandate, Necsa recorded 31 innovation disclosures.
- The NTP Group achieved sales of R869 million, some 13% more than budgeted and remained the world leader in the supply of medical isotopes and the only company in the world to produce Molybdenum-99 (Mo-99) using a totally low enriched uranium (LEU) process.
- Necsa was awarded a special contract by the US Department of Energy (DOE) in recognition of and support for the South African programme to fully convert the Mo-99 production process from highly enriched uranium (HEU) to LEU-based operations and technology.
- The state-of-the-art Necsa Visitor Centre, which incorporates interactive displays on nuclear technologies, was launched by the Minister of Energy, Ms Dipuo Peters, during February 2011.
- The Nuclear Skills Development (NSD) Centre trained 487 apprentices in semester training programmes and the Decentralised Trade Test Centre was officially launched by the Minister of Trade and Industry, Dr Rob Davies in February 2011.

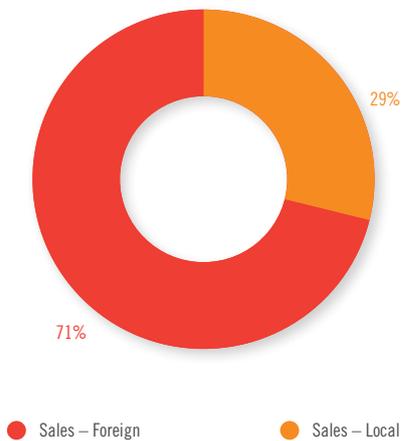


Salient Features and Value Added

Salient Features of 2011

Changes from 2010	Nominal %	Real %
State dependence for operating costs – Increased	5	1
Group sales – Increased	6	1
Company sales – Increased	26	21
Company sales per capita – Increased	18	14
Group sales per capita – Decreased	(2)	(6)
Group expenses – Increased	10	6
Company expenses – Increased	7	3
Group personnel costs – Increased	12	8
Company personnel costs – Increased	9	4
Group operating expenses (salaries and allowances excluded) – Increased	9	5
Company operating expenses (salaries and allowances excluded) – Increased	6	2
Inflation adjustment used in all calculations is 4.1%		

Sales – Group



Salient Features and Value Added (continued)

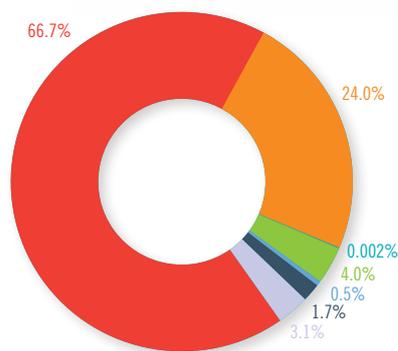
Value Added Statements as at 31 March 2011

Group	2011 R'000	2010 R'000	2009 R'000	2008 R'000	2007 R'000
Income generated					
Sales and other income	1,112,621	1,085,881	651,732	535,780	464,803
<i>Government grant</i>					
Operating activities	401,429	362,766	316,362	245,886	260,205
LEU fuel conversion	36	7,202	1,982	2,419	16,074
Decommissioning and decontamination	67,069	67,049	81,633	59,128	19,824
Security	8,246	9,468	9,350	8,962	9,000
Other grants	28,120	25,442	30,421	28,820	21,486
Income from Investments	52,480	54,823	62,336	34,077	20,862
	1,670,001	1,612,631	1,153,816	915,072	812,254
Income distributed					
Employees	431,567	396,552	316,524	244,324	319,216
Providers of services, materials and products	722,569	753,153	510,205	420,932	164,055
Training and development	12,516	11,236	7,925	9,151	6,498
Government	191,164	145,635	141,763	86,932	88,536
National facilities	110,320	94,899	57,469	73,206	103,156
Depreciation	72,406	47,435	39,601	32,028	29,309
Retained Income	127,474	162,329	75,647	46,669	99,382
Minority interest share of profit	1,985	1,392	4,682	1,830	2,102
	1,670,001	1,612,631	1,153,816	915,072	812,254

Group	2011 %	2010 %	2009 %	2008 %	2007 %
Income generated					
Sales and other income	66.6	67.3	56.5	58.6	57.3
<i>Government grant</i>					
Operating activities	24.0	22.5	27.4	26.8	32
LEU fuel conversion	0.0	0.4	0.2	0.3	2
Decommissioning and decontamination	4.0	4.2	7.1	6.5	2.4
Security	0.5	0.6	0.8	1	1.1
Other grants	1.7	1.6	2.6	3.2	2.6
Income from Investments	3.1	3.4	5.4	3.6	2.6
	100.00	100.00	100.00	100.00	100.00
Income distributed					
Employees	25.8	24.6	27.4	26.7	39.3
Providers of services, materials and products	43.3	46.7	44.2	46	20.2
Training and development	0.7	0.7	0.7	1	0.8
Government	11.4	9.0	12.3	9.5	10.9
National facilities	6.6	5.9	5	8	12.7
Depreciation	4.3	2.9	3.4	3.5	3.6
Retained Income	7.6	10.1	6.6	5.1	12.2
Minority interest share of profit	0.1	0.1	0.4	0.2	0.3
	100.00	100.00	100.00	100.00	100.00

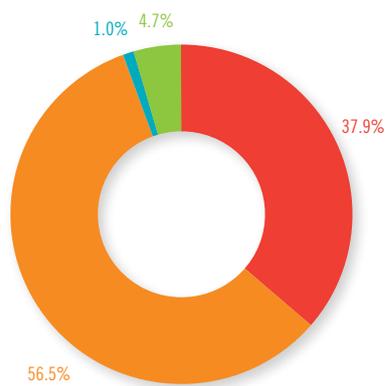


Revenue Per the Statement of Comprehensive Income – Group



- Sales and other income
- Government grant – Operating activities
- Government grant – LEU fuel conversion
- Government grant – Decommissioning and decontamination
- Government grant – Security
- Other grants
- Income from investments

Expenses Per the Statement of Comprehensive Income – Group



- Personnel
- Operating expenditure
- Other
- Depreciation



Chairperson's Review

Important Developments

A major policy milestone was the approval by Cabinet of the Integrated Resource Plan (IRP 2010) on 16 March 2011 which forms the basis of planning to meet South Africa's electricity power generation needs until 2030. Cabinet approved the plan with specific emphasis on broadening electricity supply technologies to include gas, biomass, nuclear and renewables (wind, solar and hydro) in response to both the country's future electricity needs and the need to progressively reduce carbon dioxide (CO₂) emissions. The plan envisages that nuclear will contribute an additional 9,600 MW of the total generation mix by 2030. Necsa's contribution to the power expansion programme will mainly be as a nuclear fuel supplier and through the manufacturing of components required by the Nuclear Power Plants and Nuclear Fuel Cycle (NFC) programmes.

Necsa developed the South African Nuclear Energy Research, Development and Innovation Strategy (NERDIS) together with the Department of Science and Technology (DST). The strategy includes an extensive analysis of the entire national nuclear programme and identifies matters to be addressed during the expansion of the nuclear fleet. The NERDIS is expected to make a significant contribution to the roll-out of a viable expanded South African nuclear programme.

Letters of Intent (LOIs) were signed with the Commissariat à l'Énergie Atomique et aux Énergies Alternatives (CEA) (the Atomic Energy Commission of France) and with AREVA covering joint co-operation in a number of research areas, the public understanding of nuclear technology, and several aspects of the NFC, as well as nuclear technology training. The intention of the LOIs is to create depth in the South African National System of Innovation (NSI) with respect to nuclear technology, which will stand South Africa in good stead as it begins to establish the infrastructure mandated through the Nuclear Energy Policy for South Africa as well as the IRP 2010.

Necsa continued to implement and enhance its new strategic business model and associated organisational structure, and good progress was made in fulfilling the nuclear R&D mandate as directed by the Nuclear Energy Act and Nuclear Energy Policy; whilst also pursuing industrialisation and commercialisation more vigorously. In this regard it is a pleasure to welcome Dr Petro Terblanche who was appointed as Group Executive: Research & Development; Dr Ramatsemela Masango as Group Executive: Nuclear Compliance; and Ms Chantal Janneker as Group Executive: Marketing and Communication.

Good progress was made with the assistance of the National Nuclear Security Administration (NNSA) of the US DOE in preparing for the repatriation of SAFARI-1 spent fuel of US origin.

We are very proud of the fact that NTP continued to play a major role in mitigating the global Mo-99 shortage crisis that began in May 2009 and continued into 2011. Scarcity of this radioisotope, which is used for medical diagnostics and treatments, was regarded as the world's worst medical crisis in decades. NTP also played a leading role in the High Level Group activities and Mo-99 supply crisis management actions of the Organisation for Economic Co-operation and Development (OECD).

The Japanese Earthquake and Tsunami Disaster and its Impact on Nuclear Energy

During March 2011 we received the shocking news that Japan had been hit by a mega-quake, followed by a tsunami that was exceptional even for Japan. The Fukushima nuclear power reactors survived the earthquake but suffered damage to backup diesel generators as a result of the ensuing tsunami that left them stranded without cooling. The disaster reminds us that we must consider how nuclear plants will perform in all high-impact, low probability events. We have joined forces with institutions from other countries by becoming part of the Response and Assistance Network (RANET), co-ordinated by the International Atomic Energy Agency (IAEA). Necsa acts as South Africa's competent authority in terms of the Conventions on Early Notification and Assistance in the case of Nuclear Accidents or Radiological Emergencies. Necsa is also involved in the drafting of the radio and internet guidelines, for the functioning of RANET, to communicate hydro-meteorological and climate related information.

The situation in Japan has prompted a rethink of safety aspects for nuclear programmes internationally. A post-Fukushima study, undertaken by the US company Ux Consulting, estimates that the global growth of nuclear energy may decline by 12.7% (from the original estimated investment of \$443 billion) by 2030 but the investment in nuclear will still increase by an estimated 250% from the current \$112 billion to an estimated \$393 billion by 2030. This confirms that the contribution to the curbing of CO₂ emissions that nuclear offers, remains a critical strategic consideration.



Dr Manne Dipico
Chairperson



CEO's Review

The Necsa Group experienced a successful 2010/11 and it is a pleasure to report satisfactory performance and progress for the three main clusters of Necsa.

Nuclear Power Cluster

Activities within this cluster include Necsa's Nuclear Fuel Cycle (NFC) development projects as well a programme to develop a nuclear quality compliant manufacturing capacity in support of the nuclear energy expansion programme. The planned expansion of South Africa's nuclear power capacity from the current 1,800 MW to 11,400 MW by 2030 holds substantial opportunities for technology advancement and manufacturing, but requires that the necessary systems and infrastructure be established timeously to accommodate the long lead times required by the nuclear power industry. Whilst Necsa commenced with some preparatory work in anticipation of government's approval of IRP 2010, more will have to be done in this regard as the implementation of the nuclear energy expansion programme proceeds.

Necsa conducted further techno-economic pre-feasibility studies on site selection options to accommodate a local nuclear fuel production programme, the availability of uranium resources, options for the establishment of a local uranium conversion and enrichment programme; and a study covering various options for the second phase storage (post-reactor phase) of Pressure Water Reactor (PWR) spent fuel.

Small scale laboratories were established to develop capacity to perform experimental activities on the NFC while conceptual designs for uranium conversion and enrichment facilities received attention.

Necsa also established a PWR fuel development team and a strategic framework was developed for the roll-out of a localised PWR fuel manufacturing capability to ensure security of supply for local requirements and with a view to accessing international supply chains for nuclear fuel and components.

Necsa further upgraded its mechanical manufacturing facility to enable manufacture of components in conformance with strict nuclear manufacturing codes and standards for nuclear installations in response to government's localisation objectives for the electricity generation expansion programme. The recently adopted Industrial Policy Action Plan for 2011/12 to 2013/14 (IPAP2) highlights the fact that localisation is essential to protect South Africa's trade balance in view of the large scale of this infrastructure programme.

This facility is aligned with government's localisation objectives as envisaged for South Africa's nuclear energy expansion programme. Whilst preparatory work has already commenced with regard to manufacturing, further work is required.

Radiation Science and Application Cluster

Excellent progress was made in this cluster in expanding the R&D base and by NTP in maintaining and developing its position as a market leader in radiopharmaceutical products and related services to the nuclear medicine sector.

The Business Plan for 2010/11 to 2012/13 of the Nuclear Technologies in Medicine and the Biosciences Initiative (NTeMBI) was approved by the DST and became fully operational. NTeMBI functions as a high level developmental initiative, providing a framework to consolidate expertise and to implement new strategic initiatives relating to R&D on nuclear technologies in medicine and the biosciences. Its portfolio, which comprises nine projects, focuses on malaria control, biomarkers and diagnostics, and radiopharmaceuticals. More than 20 postgraduate students and postdoctoral fellows have been placed in the nine projects at various institutions under the NTeMBI consortium.

The NTP-Necsa co-operation on various research activities yielded a major breakthrough with the development of the LEU-based Mo-99 process and associated product validation. The new Drug Master Files for the LEU Mo-99 were finalised and submitted to medical regulators in various countries. NTP is also represented on an international working group, formed in 2010, for the development of a new higher density target for LEU Mo-99 production.

Necsa was awarded a special contract by the US DOE in recognition of and support for the South African programme to fully convert the Mo-99 production process from HEU to LEU-based operations and technology. South Africa, through NTP's operations, is not only the leading global supplier of Mo-99 but also the first country to successfully convert both the reactor fuel and target plates used to produce the Mo-99 to LEU on a commercial production scale. The US contract is aimed at accelerating the industrialisation programme to make LEU-based Mo-99 available on the international market. The first commercial scale LEU-based Mo-99 batch, approved by the Food and Drug Administration (FDA) for patient use, was sent to the US during the year.

The NTP Group achieved a turnover of R869 million for the 2011 financial year which was 13% better than budgeted, despite the impact of depressed markets and the unfavourable rate of exchange.

CEO's Review (continued)

Due to an effective maintenance programme, fully staffed and trained reactor operations group and reactor ageing management, SAFARI-1 achieved its best ever operational availability of 101.1% against scheduled availability at an average reactor power of 19.44 MW. Projects to establish the production facility to produce LEU fuel and target plates for Mo-99 production are on track for completion at the end of 2014.

A project to develop a unique process to recover enriched uranium from Mo-99 production process residues made good progress and met planned objectives. The process will significantly enhance the control and productive use of enriched uranium as an input material to isotope production and the project enjoys significant international support and interest.

A collaborative initiative was launched with various universities and iThemba LABS Gauteng on the establishment of an integrated nuclear energy research support structure for reactor physics, modelling, and nuclear materials as well as to integrate research initiatives and higher educational training in reactor physics. This initiative is structured to facilitate strong collaborative efforts whilst providing for academic autonomy.

Necsa as Host of Nuclear Programmes

South Africa achieved the broader conclusion from the IAEA regarding the absence of undeclared nuclear material and activities in the country. The conclusion will lead to the country's move to Integrated Safeguards, which is a major milestone in terms of progressive safeguards implementation and transition.

As part of its contribution to develop skilled people for the nuclear industry, Necsa operates several training schemes ranging from a support programme which assists Post-Graduates to do research at Necsa laboratories, to the Adult Basic Education and Training (ABET) programme. Investment in training during the past year amounted to 8% of total staff expenditure. Necsa's Nuclear Skills Development (NSD) Centre programme deserves special mention as it continued to grow and fulfil its mandate in responding to the call made by government through the National Skills Development Strategy. The Centre, which was previously accredited by the Chemical Industries Education and Training Authority (CHIETA) as a Decentralised Trade Test Centre, was officially launched by the Minister of Trade and Industry, Dr Rob Davies in February 2011. The Centre partnered also with various organisations

such as the Department of Public Works, the Development Bank of South Africa, Alstom, DB Thermal and others on job creation projects and a total of 487 apprentices benefited from the semester training programmes.

General

Research, Development and Innovation

Necsa continued to implement its enhanced business model and associated organisational structure with effect from 1 April 2010. The new business model is designed improve the organisation's focus on industrialisation of the developed nuclear technologies and the utilisation of Necsa's scientific and engineering capabilities. A number of projects have been launched covering manufacturing of new products, co-operation agreements with partners and clients as well as the certification of approved suppliers required by Necsa to optimise South Africa's engineering capabilities.

Looking to the Future

The Necsa Group is well set to continue building on its foundation of good performance and some of the key activities that will be pursued include:

- NFC development aligned with IRP 2010 and Eskom requirements;
- Developing localisation capabilities including American Society of Mechanical Engineers (ASME) III certification;
- A significant investment to upgrade NTP's quality assurance system to comply with the latest international Good Manufacturing Practice (GMP) quality system;
- Developing Pelchem's diversification strategy into the pharmaceutical products domain;
- Expanding R&D programmes in support of Necsa's core activities and in contributing to the NSI;
- Successful completion of a number of industrialisation projects; and
- Further developing a nuclear security training programme.



Dr Rob Adam
Chief Executive Officer





Nuclear Technology Report

In April 2010 Necsa was restructured to enable the explicit relationship between R&D, Industrialisation and Commercialisation to be embedded. The new Necsa model enables innovations from the R&D division to be brought to scale or rejected as impractical by the Nuclear Technology Industrialisation division, prior to being spun out into independent subsidiary companies. However, R&D also has relevance for a range of non-commercial but critically important nuclear technologies, such as waste treatment and nuclear forensics, which are located in the Technical Services Division.

Research and Development

Background

The structure, programme and activities of R&D at Necsa are closely aligned with government outcomes and Necsa's mandate. The two main focus areas comprise in-house research to support mandated Necsa initiatives and pure and applied research to collaborate within the NSI.

The close synergy between R&D and Nuclear Technology Industrialisation ensures a complete and unique value chain for the development of nuclear technology related to the NFC; radiation products and spin-off services; products for exploitation by Necsa's subsidiaries, NTP and Pelchem; and products and services that benefit the wider science community. Relationships fostered with local Universities and Science Councils have embedded Necsa's role in the NSI.

The R&D mandate is derived from Section 13 of the Nuclear Energy Act, No. 46 of 1999, and incorporates the following responsibilities:

- Undertake and promote R&D in the field of nuclear energy and radiation sciences and technology;
- Expand Necsa's local and international R&D collaborative network;
- Grow Necsa's research, development and innovation outputs;
- Expand Necsa's core research capacity and capabilities; and
- Support Necsa research facilities and commercial product sustainability.

The R&D structure allows demarcated specialised skills development to fulfil the research mandate best.

Necsa has unique nuclear facilities such as the thermal neutron beam lines at SAFARI-1, that exist nowhere else in the country and that can add a vital dimension to research in a large number of scientific disciplines. A focus area is to make these facilities available to all participants within the NSI and to provide the instruments, scientists

and support expertise to allow visiting researchers to gain easy access to skilful use of the facilities and equipment. This focus area entails predominantly radiation and nuclear physics-related expertise.

Necsa is further mandated to do the necessary R&D to process nuclear materials, with emphasis on the establishment of local NFC technology capabilities, in collaboration with national and international collaborators. This predominantly in-house R&D area demands mostly specialised chemistry techniques for nuclear materials. The Necsa Applied Chemistry Department performs most of this work with some specialised analytical techniques supplied by the Radiation Science Department.

A common focus area is R&D support for the Necsa subsidiaries, NTP and Pelchem, to ensure a sustainable pipeline of new commercial radiation and fluorine products for the future, and general R&D consultancy and calculational support for SAFARI-1 and other nuclear facilities. Applied Chemistry support is biased towards new radiopharmaceutical development and fluorine chemistry pipeline product development and Radiation Science towards computer code development (OSCAR-IV) to expertly simulate and support SAFARI-1 operations and radiation calculational support for all large Necsa projects.

NTeMBI, supported by the DST, is managed by Necsa R&D to consolidate and integrate all R&D in the country in the indicated sector in order to establish a full value chain with end products and services.

R&D programmes at Necsa are specifically linked to the following DST Grand Challenges: Energy Security, Farmer to Pharma, Climate Change and Space Science.

Necsa's main research assets, many of which are unique, include:

- The SAFARI-1 Material Testing Reactor (MTR), the flagship of most of Necsa's commercial and research programmes;
- Accelerator and reactor-based beam line facilities exploiting X-rays, charged particles and neutrons for pure and applied research and analysis;
- Computational capability for radiation (criticality, shielding, source terms, etc) and reactor calculation;
- Physical and chemical (element and molecule) characterisation laboratories to support nuclear material programmes;
- Fully licensed and equipped NFC development facilities;
- Dedicated and well equipped surface chemistry laboratories for research and analyses in support of SAFARI-1 and the NFC facilities;

Nuclear Technology Report (continued)

- Radioactive waste management laboratories;
- Laboratories and equipment for processing of irradiated materials; and
- Laboratories and equipment for development and assessment of new medical radiation products.

In-house Research Programmes

These programmes predominantly support NFC activities and SAFARI-1 operational and isotope production, and include:

- Radiation calculations (criticality, shielding, etc.), theoretical support, and advanced mathematical simulation in support of radiation and reactor science and technology;
- Isotope and radiopharmaceutical product development;
- Recovery of enriched uranium for reuse in isotope production;
- LEU fuel and Mo-99 target plate development;
- Support for establishment of a uranium conversion plant;
- Support for the investigation of two enrichment technologies;
- Nuclear waste liability minimisation; and
- Nuclear materials research and analysis.

Research in Support of the NSI

The main research programmes in this category are:

- Advanced Metals Initiative (AMI);
- Fluoro-chemical Expansion Initiative (FEI);
- NTeMBI;
- Radiation imaging and analysis for heritage studies;
- Non-destructive testing in mechanical and civil engineering applications (including low cost building materials);
- Solid state physics such as stress and strain in materials; critical and magnetic phenomena (high temperature superconductivity); and order and structure in materials;
- Environmental and resource optimisation studies (e.g. coal efficiency research);
- Illicit materials and contraband detection technology;
- Nuclear physics theory and experiments;
- Nuclear materials (including nuclear fuel); and
- Nanomaterials in the nuclear and radiation context.

International Collaboration

Necsa participates in several international initiatives such as: EURATOM; Generation IV International Forum (GIF), the African Regional

Cooperative Agreement (AFRA) and the European Commission's Seventh Framework Programme (FP7). Active research collaboration and scientific exchange are in place with the following international nuclear institutes: IAEA, ANSTO, COMENA, CEA, KAERI and JINR.

The fact that 31 innovation disclosures were recorded for the year confirms that Necsa continues to effectively fulfil its R&D mandate. In addition to successfully managing and completing multi-disciplinary and multi-institutional research and development projects, Necsa made a substantial contribution to human capital development at tertiary level. Necsa experts provided supervision, knowledge transfer and mentorship to 13 students enrolled in the newly established Masters course in the Science and Organisation of Nuclear Energy at the University of Johannesburg and to eight students enrolled for the Masters course in Applied Radiation Science and Technology at the North-West University. We hosted 17 full time post-graduate researchers in Necsa laboratories; supported 10 post-graduate students with study projects at Necsa facilities and hosted five graduates in training at Necsa.

The Necsa Intellectual Property (IP) office is managing a fast growing IP portfolio and is continuously looking to improve its positioning to meet the required practices of the National IP Management Office (NIPMO). The NIPMO established a first order database of the Necsa IP pipeline, from disclosure to exploitation. The pipeline comprises the following:

- Innovation disclosures: 31;
- The International Patent Cooperation Treaty of 1970 (PCT)/European Patent Organisation in first examination phase: Four (4) families;
- Examinations in progress in nine (9) countries for other applications;
- Pending: 46 applications (amongst 11 families);
- Granted/registered/allowed and maintained: 193 patents (24 families); and
- Exploitation strategies in place: 14 families.

Innovation disclosures accepted and confirmed covered the following fields, with the most promising of these being the third group:

- Contaminant identification during decommissioning;
- Analytical techniques and tools; and
- Hot cell techniques and equipment.

Publications produced during the review period are reported in Appendix A on page 172 of this report.



Other Important Outcomes

In addition to the formal achievements listed above, the following are notable strategic achievements, in line with the R&D mandate and objectives listed under the different strategic clusters relevant to the Necsa mandate and government outcomes:

Radiation Science and Applications

- The National Equipment Programme of the National Research Foundation (NRF) awarded a grant of R13.18 million towards the upgrade of the neutron radiography facility;
- The World Conference on Neutron Radiography 2010 was hosted successfully by Necsa;
- Two new research radiography and tomography collaborations within the NSI context were established, the first with the National Museum in Bloemfontein on the evolution of grazing animals from the Florisbad Quaternary deposits and the second with the University of Johannesburg on nuclear material characterisation;
- During a visit to France an R&D collaboration agreement with the CEA was established that includes training and mutual collaboration in: probabilistic and deterministic neutronic code development and benchmark calculations; software quality standards; RCC-M material code and standards; accelerator-based radiation damage studies of selected nuclear materials; general simulation and modelling using the CEA Cast3m finite element code; mutual PhD training programmes and post-doctoral and exchange programmes;
- A collaboration agreement was initiated for research on the radio frequency quadrupole (RFQ) fast neutron accelerators between Physikalisch-Technische Bundesanstalt (PTB) and RI Research Instruments, GmbH, Germany and Necsa;
- The Necsa/University of Pretoria (UP)/ANSTO Pilot project on using Pt-195m cisplatin in healthy volunteers was approved by the UP Ethics Committee. Study participants are currently being recruited; and
- The DST approved an updated three year Business Plan for NTeMBI, which functions as a high level research, development and innovation initiative, providing a framework to consolidate expertise and to implement new strategic initiatives relating to R&D on nuclear technologies in medicine and the biosciences at a local, regional and international level. Funding received will be used during 2011 largely to implement nine NTeMBI projects designed through national workshops and included in the updated Business Plan. The projects address high priority areas in the development of new nuclear medicine diagnostics and therapeutics

for cancer as well as communicable diseases. NTeMBI will also seek to make a contribution to the malaria control programme by supporting a project aimed at assessing the Sterile Insect Technique for mosquitoes.

Staff Achievements and Development

- Mr Frikkie de Beer was awarded the Necsa Dinaledi awards in the Innovator and the overall Activator categories for 2010 for his leadership in the establishment of a world-class neutron radiography facility at Necsa;
- Mr Tshepo Ntsoane was elected Chairman of the National Synchrotron Radiation Roadmap Implementation Committee;
- Mr Graham Daniels accompanied the Necsa delegation to the CEA in France at the end of February 2011 as part of his individual leadership development programme; and
- Two of Necsa's young, upcoming scientists, Nicolin Govender and Suzanne Theron, won first and second prizes respectively for the best Master Degree Presentations during the South Africa Institute for Physics Conference.

Nuclear Power

- It was demonstrated that uranium feed material to a conversion plant can be purified by removing typical problematic transition metal impurities using ion exchange resins. This breakthrough creates an alternative process to the standard tri-n-butyl phosphate (TBP) solvent extraction process which creates problematic waste streams;
- The absence of an acceptable methodology to treat radioactive graphite waste generated by High Temperature Reactors (HTRs), resulted in the formation of an EU Carbowaste Consortium to research graphite treatment methodologies with the aim of re-using the graphite in the nuclear industry and to aid volume reduction initiatives for final disposal. This project was successfully completed;
- The recovery of enriched uranium from Mo-99 residue (>99% uranium dissolution in carbonate leaching step using simulation residue) and recovery of enriched uranium from polytetrafluoroethylene (PTFE) filters have met their stage gate objectives. The former project enjoys significant international support and interest; and
- A collaborative initiative was launched with the Universities of Pretoria, North-West and Johannesburg as well as the Pebble Bed Modular Reactor (PBMR) Group at Necsa to integrate research initiatives and higher educational training in reactor physics

Nuclear Technology Report (continued)

Commercial Activities

- The FEI project portfolio met the agreed targets and deadlines and indications are that DST will fund the next phase of this initiative. Necsa's participation in the Li-battery project; its participation in the beneficiation of Rare Earths and its strategic repositioning to manufacture intermediate pharmaceutical compounds will strengthen its position in negotiating extensions and broadening the FEI. Pelchem is also further supported with the synthesis of NdF_3 , the main component of strong magnets used in electrical cars and wind turbine generators;
- Positive feedback was received from the DST regarding the work of the New Metals Development Network of the AMI, in particular the potential of the plasma routes, the IP portfolio that has been built up and the human capital development component. Consequently, the DST transferred R4 million to Necsa during December 2010 for the continuation of Phase 2 of the project. An important breakthrough was the discovery of a new dissolution agent for minerals, namely ammonium acid fluorides; and
- The Calcium Fluoride Beneficiation project, supported by the Innovation Fund (IF) was successfully completed. The IF, now the Technology Innovation Agency (TIA), is considering taking some aspects of the project (plasma hydrogen fluoride (HF) manufacturing) to the next level by funding a pilot facility and feasibility study, to the value of R6 million. The TIA was concerned about IP protection, but took note of the fact that at least one patent had been filed.

Human Capital Development

The NERDIS which was developed by Necsa in partnership with the DST, has strong emphasis on high level human capacity building in nuclear and radiation sciences and scientific disciplines related to nuclear fuel cycle activities. Post-graduate studies in these areas entail student contact with Necsa experts and specialised nuclear facilities that are only available on the Necsa site. Although formal post-graduate degrees can only be awarded by universities, post-graduate studies in these areas can only be done at facilities at Necsa under the close supervision of Necsa experts. As at 31 December 2010, Necsa provided:

- Post-graduate capacity building for 13 students enrolled in the newly established Masters in the Science and Organisation of Nuclear Energy at the University of Johannesburg;
- Post-graduate capacity building for eight students from the Masters in Applied Radiation Science and Technology at the North-West University;

- Hosting for 17 full time post-graduate researchers in Necsa laboratories;
- Support for 10 post-graduate students with study projects at Necsa facilities;
- Support for 20 full time post-graduate researchers at universities; and
- Hosting for five graduates in training at Necsa.

Nuclear Technology Industrialisation

Background

Necsa's organisational structure was changed with effect from 1 April 2010 to include a dedicated Nuclear Technology Industrialisation Division. This allows for improved focus on industrialisation of developed nuclear technologies and the utilisation of Necsa's scientific and engineering capabilities, also making these generally available to further Necsa's responsibilities in accordance with the Nuclear Energy Act.

The objective is to establish those NFC facilities necessary for the full cycle from beneficiation of uranium to the production of nuclear fuel. Key performance areas include:

- Concept design of front and back end facilities (e.g. conversion, enrichment, fuel fabrication and various waste management and recovery options);
- Converting the MTR fuel manufacturing capability from HEU to LEU; and
- Establishing the capability to manufacture items required for the nuclear island of a nuclear power plant. This focus implies increasing Necsa's income from items manufactured for the general engineering industry to enable the manufacturing of the very high quality required for nuclear reactor items.

Operations

During the review period numerous initiatives were launched including:

- The manufacturing of new line items, products and components;
- Co-operation agreements with partners and clients.
- Certification and approval of suppliers required by Necsa to optimise South Africa's engineering capabilities; and
- Discussions with funders and investors for potential commercially viable initiatives.

Most of these initiatives are in the incubation stage and outcomes will be reported in the new financial year.



Conversion to Low Enriched Uranium

The SAFARI-1 MTR continued to operate with a core fully converted to LEU. Thirty one LEU fuel elements and 10 control rods were manufactured during the period. All of these performed to expectation, thereby maintaining the impeccable success rate that has been in place since the first LEU fuel assembly was introduced into the core in 2006.

NTP successfully produced Mo-99 with target plates made from LEU. With the capability to produce target plates from HEU being no longer required, Necsa launched a project to localise the LEU fuel and target plate manufacturing capability. This progressed to plant design and equipment specification stage. The basic design will be submitted to the National Nuclear Regulator (NNR) in the 2011/12 financial year for approval and authorisation to manufacture and procure items required for construction. These submissions will comply with the NNR's quality management system requirements (RD-0034) for nuclear installations. The project is performed by Necsa's engineers in co-operation with Necsa's technology partner. Funding received from the US DOE will support the full conversion of the Mo-99 value chain from HEU to LEU-based operations and technology.

Progress in maintaining aging infrastructure and enhancing productive capacity included the development of:

- A gap measuring machine to measure the water gap between the plates of the SAFARI-1 fuel element; and
- A new X-ray facility, used for monitoring homogeneity of uranium in fuel and target plates.

Nuclear Fuel Development Laboratories

A number of small scale laboratories were developed to ensure understanding and to perform experimental activities in the front and back end of the NFC. These laboratories will be used to operate test loops and develop analytical techniques to complement theoretical studies.

A PWR fuel development team was constituted to focus on upgrading facilities and developing management systems, including formal certification, to manufacture components required for nuclear PWR fuel elements. This will result in a development and training facility for the younger generation of technicians and engineers.

The above activities are essential to meet government's expectations, mandate and targets set in the Nuclear Energy Act, the Nuclear Energy Policy and the IRP 2010.

Pebble Bed Modular Reactor Programme

The Pebble Bed Modular Reactor (PBMR) programme was terminated following government's decision to shut down the activities of PBMR (Pty) Ltd. Necsa plans to decommission the nuclear installation which is currently under care and maintenance. Decommissioning is planned for initiation in the 2011/12 financial year, after the necessary approval has been received from the NNR.

Nuclear Fuel Cycle Studies

Necsa concluded three further studies in support of the current nuclear industry. These also support the nuclear energy programme announced in the IRP 2010:

- A spent fuel storage study covering various options for the second phase storage of PWR spent fuel. The first phase of this study is the cool-down of spent fuel elements in a PWR reactor's own spent fuel storage pools;
- A strategic framework for the roll-out of a localised PWR fuel manufacturing capability that addresses *inter alia* a progressive manufacturing programme which will be initiated with non-radioactive fuel element components. This programme is essential to ensure security of supply and to fully optimise and capitalise on localisation and globalisation; and
- Conceptual designs for uranium conversion and uranium enrichment facilities.

Nuclear Manufacturing

The main focus areas for manufacturing are:

- Tanks, chambers, vessels and containers;
- Machined components;
- Filters and dryers; and
- Manufacturing and testing of prototypes required for nuclear, chemical and general industrial applications.

Discussions were held with potential vendors to establish co-operation as a precursor to localisation once the procurement of South Africa's new nuclear fleet is concluded. These discussions did not only cover localisation, but also globalisation which is essential to ensure a sustainable nuclear manufacturing industry.

The first important step in localisation is certification, to establish compliance with the very high quality international standards required

Nuclear Technology Report (continued)

for nuclear installations to ensure safety. To this end, Necsa increased its efforts to prepare systems in compliance with the 2010 revision of the ASME III code. Due to the unavailability of the ASME auditor, the scheduled audit date of October 2010 was not met and Necsa will be audited by the international ASME certification body in May 2011.

Nuclear Manufacturing was re-audited during the review period and retained its ASME section VIII, U stamp certification. This certification is applicable to the manufacturing of pressure vessels.

Technical Services

Introduction

With effect from 1 April 2010, all technical services in support of the Necsa Group were centralised under one division to ensure the sustainable growth of Necsa both nationally and internationally. Initiatives launched included:

- Re-alignment of the decommissioning programme with the re-establishment of the NFC;
- Support for the Department of Energy (DoE) with the establishment of the National Radioactive Waste Disposal Institute;
- Establishment of a new sewerage plant as well as the refurbishment and upgrading of existing liquid effluent and utility pipelines, to be completed by 2012;
- Investment in new analytical technology and equipment, to be completed by 2012; and
- Establishment of a nuclear forensic laboratory, to be completed by the end of 2011.

Nuclear Liabilities Management

Decommissioning

All the asbestos was successfully removed from the decommissioning area and the facility was certified free of asbestos by an Approved Inspection Authority. The deheeling of the UF₆ containers in Area 27 progressed in accordance with the project schedule.

Decontamination

The Decontamination Facility consists of a Wet Decontamination Section where chemical or metallurgical decontamination techniques are used to recover nuclear materials and Dry Decontamination where nuclear materials are physically and mechanically removed from

contaminated materials to recover nuclear materials. A total of 207 batches were processed and 90% of the material that was presented for decontamination was cleared from regulatory control.

Nuclear Waste Projects

Projects approved by the NNR for the period included:

- Transport of Necsa's low level waste to Vaalputs;
- Relocation of the molybdenum transfer station from P-2400 to the Pelstore facility;
- Decommissioning of the Volume Reduction Facility (Drum Press) at P-2400 and relocation to Pelstore; and
- Construction and decommissioning of the Volume Reduction Facility (Drum Press) in Pelstore.

Nuclear Waste Storage

Nuclear waste from various points of origin was collected and safely stored at Necsa during the review period, as follows:

Type	Origin	Storage area	No. received 2011	Total at 31 March 2011
Spent sealed radioactive sources	Clients throughout South Africa, and other Necsa facilities	Area-24 Source Store	2,244	4,464
Smoke detectors	Clients throughout South Africa	Area-24 Source Store	6,313	16,485

Nuclear Waste Disposal

Following the enactment of the National Radioactive Waste Disposal Institute (NRWDI) Act, No. 53 of 2008, Necsa was mandated to manage the NRWDI on behalf of the DoE until such time as the NRWDI has been fully established and capacitated. As part of this delegated function, Necsa is maintaining the Vaalputs license conditions and has re-negotiated the waste disposal contract with Eskom.

Waste shipments from Koeberg resumed after the conclusion of the optimised disposal contract and three consignments consisting of 360 low level waste packages were received from Koeberg for final disposal. The cumulative total of the number of waste packages disposed of at 31 March 2011 is 18,828.



Analytical and Calibration Services

The extensive range of chemical, radio analytical, and instrument calibration techniques, facilities and expertise available within the analytical and calibration laboratories has been customised to meet the specific needs of the nuclear and related industries in South Africa.

The laboratories play a crucial role in the safety, health and environmental control and monitoring programmes, and the certification of product quality in the production facilities of Necsa and South African industry. Services in this regard are currently provided to:

- The nuclear industry;
- Gold mines;
- Uranium mines;
- Power stations;
- Environmental consultants; and
- Government departments and projects.

Accreditation

The Analytical and Calibration Services laboratories are South African National Accreditation System (SANAS) accredited for compliance to the ISO 17025 standard for competence of testing and calibration laboratories in the following fields:

- Analysis of radioactivity content of environmental, production and waste materials;
- Analysis of chemical content of radioactive and non-radioactive environmental, production and waste materials; and
- Calibration of a wide range of nuclear radiation and contamination monitors.

Services

The following services were provided during 2010/11:

- Measurement of radioactivity and chemical contamination of samples from personnel, workplace, waste, environment and airborne particulate compliance monitoring programmes;
- Certification of radioisotope content and impurities in fuel elements, target plates and radioisotope products; and
- Calibration and repair of nuclear radiation and contamination monitors.

The laboratories regularly participate in several inter-laboratory

comparison studies and proficiency tests. The following are of note for the year:

- The Safeguards Measurement Evaluation Programme (SMEP) organised by the New Brunswick Laboratory of the US DOE. The first set of SMEP test samples was successfully analysed for uranium mass fraction and isotope abundance;
- The analytical laboratory was the top performing laboratory out of 73 participating South African laboratories in the South African Bureau of Standards (SABS) Group 1 proficiency study; and
- The radio analysis laboratory was chosen as the co-ordinating laboratory for the IAEA's ALMERA Regional Group in Africa inter-laboratory studies for the 2010 to 2015 period.

Institutional Contributions

Experts from the radio analysis laboratory participated in scientific and technological collaboration projects for the IAEA/AFRA and played a leading role, together with the North West University, in the training of young South Africans in the field of applied radiation science and technology.

Engineering Services

These engineering services, including mechanical, electrical, civil, industrial, control and instrumentation, as well as project management, configuration management and industrial isotope technology are provided to the Necsa Group on a full cost recovery basis.

During November 2010, the services group obtained ISO 9001:2008 certification from the SABS, which is the minimum requirement for doing engineering work within the nuclear industry.

The following significant projects were undertaken in the reporting period:

- Return of US Origin Spent Fuel – In December 2008 the South African government committed to participating in the Foreign Research Reactor Spent Nuclear Fuel Acceptance Programme of the USA with respect to spent fuel of US origin. A significant milestone was reached with the signing of a contract on 24 August 2010 between the US DOE National Nuclear Security Agency and Necsa. This enabled the project execution phase.
- Upgrading of Necsa's Emergency Control Centre – Following the designation of Necsa as a key role player in nuclear security for the 2010 FIFA World Cup™, Necsa's Emergency Control

Nuclear Technology Report (continued)

Centre was upgraded, including building alterations and the installation of new state-of-the-art equipment. This was tested and commissioned before the kick-off date on 11 June 2010.

- New sewage plant – As a result of aging infrastructure, Necsa commenced with the upgrading of its sewage plant in 2011. Design was completed in September 2010, tenders for construction were awarded in December 2010 and construction work commenced in March 2011.

Nuclear Forensics Management

Necsa entered into an agreement with Lawrence Livermore National Laboratory and Los Alamos National Laboratory to co-operate in establishing a nuclear forensics capability. A proposal was prepared and finalised by Necsa in November 2010, highlighting the benefits opportunities, roles and broader scope of nuclear forensics functions for the country in terms of illicit trafficking analysis and upholding of non-proliferation.

As a result an external consultant, with extensive knowledge and experience in the area of risk relating to weapons of mass destruction, was appointed to prepare a feasibility study for the establishment of a nuclear forensics capability.

Liquid Effluent Management

Authorisation was received from the NNR to re-instate LA6 as the low active liquid waste release tank. Hot commissioning of the valve integration with the Supervisory Control and Data Acquisition (SCADA) system is in progress. Release of low active liquid waste directly from the 46-tanks will stop once commissioning is complete.





Sustainability Report

The Group Sustainability Report provides an account of those compliance functions that define the corporate success of a uniquely nuclear entity (safety, security, safeguards, licensing), together with the more generic corporate functions of strategy, marketing, finance and human resources. Clearly these functions must be intertwined with the technology divisions of Section 6 of this annual report, if Necsa is to deliver on its mandate effectively.

Nuclear Compliance

Introduction

The Nuclear Compliance Division was established as a result of the Necsa restructuring which took place at the beginning of the 2010/11 financial year.

The role of the Nuclear Compliance Division is to position Necsa as a compliant organisation in respect of nuclear safety and security and to support the organisation as a host of nuclear programmes in meeting its regulatory and legal requirements. The Division has four key focus areas of compliance: Licensing; Nuclear Safeguards Management; Security Services; and Safety, Health, Environment and Quality (SHEQ).

Responsibilities of the Nuclear Compliance Division as mandated by the Nuclear Energy Act, No. 46 of 1999 are:

- Implementation of Safeguards Agreement on behalf of the government;
- Provision of Licensing Services for all Necsa's divisions and subsidiaries;
- Implementation of SHEQ system including the provision of medical and emergency services for the Necsa Group and contractors on the Pelindaba campus; and
- Nuclear Security Services for the Necsa Group and tenants.

Licensing

Necsa continued to focus on:

- Licensing capacity building with the emphasis on training and formal qualification of specialists to provide licensing support for all Necsa facilities;
- Improving and assisting with the quality and turnaround time of licensing submissions;
- Addressing licensing requirements with respect to prescribed licensing processes; and

- Improving the rate of response and authorisations from the NNR.

Nuclear Installation Licenses

The NNR has issued a total of 40 Nuclear Installation Licenses (NILs) to Necsa.

NNR Authorisation Requests

The following table summarises the submissions made and approvals of NNR Authorisation requests:

Activity	2007	2008	2009	2010	2011
Number of submissions to the NNR	50	65	90	60	95
Number of approvals (Including submissions made previously)	31	10	35	24	26
Number of submissions awaiting approval by the NNR	40	95	78	70	98

Necsa has continued to co-operate with the NNR by closing obsolete/redundant submissions. The priority and commitment list, compiled in co-operation with the NNR, is contributing to an improved rate of authorisations.

Project SHEQ Approval Process

Projects, including modifications to existing as well as new installations, are subject to the Necsa Project SHEQ Approval Process to ensure compliance with the Necsa SHEQ system and applicable legislation. The status of this process is summarised in the following table:

Activity	2007	2008	2009	2010	2011
Approval meetings held	69	85	100	64	75
Projects approved	28	16	54	55	50

Nuclear Safeguards Management

Safeguards and nuclear non-proliferation activities were performed on behalf of the Department of Energy, in accordance with the authority delegated in terms of the Nuclear Energy Act, No. 46 of 1999, to meet the obligations of the Comprehensive Safeguards Agreement between South Africa and the IAEA, as required in terms of the Non-proliferation Treaty which was acceded to by South Africa in 1991 and the Additional Protocol to the Agreement signed in 2002.

Sustainability Report (continued)

South Africa achieved the broader conclusion from the IAEA regarding the absence of undeclared nuclear material and activities in the country. This conclusion is a major milestone in terms of safeguards implementation and transition and allows the country to move to Integrated Safeguards management and reporting. Integrated Safeguards is defined as the optimum combination of all Safeguards activities to be conducted by government in compliance with the safeguards legal framework, in order to meet the IAEA safeguards objectives.

The annual Physical Inventory Verification of nuclear material was conducted in October 2010 and gave a positive conclusion on the effectiveness of the State System of Accounting and Control and the State's compliance with its international safeguards obligations.

To date 16,000 drums containing LEU waste, measured using the IQ3 scanner, have been declared and verified by the IAEA.

Technical co-operation continues with the Oakridge National Laboratory in the USA to develop a Safeguards non-destructive assay capability in South Africa.

Meetings were held in South Africa between the IAEA and Safeguards personnel concerning safeguards related matters such as addressing the Thabana inventory resolution; further implementation; and improvements of the Additional Protocol, including reporting requirements and future complementary access at facilities.

Further upgrading of the accountancy measurements at the conversion and fuel fabrication plants for the MTR and improvements to the nuclear material accounting system are required.

Member State Support Programme

The main purpose of the RSA Member State Support Programme (MSSP) is to strengthen international safeguards through improvements in the efficiency and effectiveness of safeguards system implementation, by transferring South African (non-IP) technology, experience and expertise to the IAEA. The South African Co-ordinators attended the MSSP Co-ordinator's meeting in Vienna to update the IAEA and other participating Member States on tasks approved and performed by South Africa.

The annual report of the RSA MSSP was issued to the IAEA in October 2010 and distributed to relevant MSSP stakeholders both nationally and internationally including the IAEA, the DoE, International Relations and Co-operation Department and all MSSP members. Open Source

information was submitted to the IAEA on a quarterly basis as part of the MSSP project.

Additional Protocol

Ten Complementary Access visits were made to private organisations and to Necsa as an implementation mechanism of the Additional Protocol. Various mines and organisations were inspected by Nuclear Safeguards Management and discussions were held to discuss requirements for provision of information under the Additional Protocol and the Nuclear Energy Act.

Remote Monitoring System

The remote monitoring system functioned well over the period. A new remote monitoring system was installed at the SAFARI-1 Reactor.

Standing Advisory Group for Safeguards Implementation

A Necsa staff member served as the South African representative on the Standing Advisory Group for Safeguards Implementation (SAGSI), which reports directly to the Director-General of the IAEA. Amongst other things, advice was provided by SAGSI on:

- IAEA Department of Safeguards long term strategic plan;
- Verification of Uranium and Thorium recovered from unconventional resources;
- Guidelines for States implementing safeguards obligations under comprehensive safeguards and additional protocols;
- State level concept and information driven safeguards;
- Structure and content of future Safeguards Implementation Reports (SIRs);
- Novel technologies; and
- Remote Safeguards inspection.

SAGSI has made major contributions to the State level concept which has now resulted in a large reorganisation of the Safeguards Department by the new Deputy Director-General and the SIR which will include more State by State reporting.

A Necsa representative participated in one SAGSI work group meeting near Vienna, Austria, a second work group meeting which was held in Chester, UK and two plenary meetings in Vienna, Austria.



Safety, Health, Environment and Quality

Employee Safety (Occupational Hygiene)

Necsa's Medical Services met the requirements of the Approved Inspection Authority, subsequent to an audit by the Department of Labour in June 2010. This approval authorises Necsa to perform its own monitoring of physical and chemical stress factors including noise, led, indoor air quality and ventilation. This monitoring was previously outsourced at great expense to the Company.

Behaviour Based Safety

Necsa Group

Necsa continued implementing the Behavioural Accident Prevention Process® under licence from Behavioural Science Technologies® (USA) and with the assistance of a local Behaviour Based Safety (BBS) consultant. This process uses trained observers to identify at-risk behaviours (i.e. behaviours that could result in a person being injured) and barriers to safe behaviour and to remove these barriers to prevent injuries.

The BBS process has made a significant contribution to safety at Necsa. The implementation of this process resulted in a major improvement in Necsa's Total Injury Rate (TIR) from 20.9 in September 2002 to 4.3 in March 2011 as shown in the graph below. The TIR includes all injuries to personnel, even minor injuries. Over approximately the same period the percentage Safe Indicator (which is an indication of the Safe Behaviours observed combined with an indicator of the BBS activity) improved from 32% to 94.3%.

Necsa: All Processes



NTP

NTP's BBS programme, referred to as LEBO (Life Enhancing Behavioural Observation), continued to reflect commitment from staff and management, achieving 1.5 million Disabling Injury (DI) free hours in February 2011. The last recorded DI was in 2007, translating into four years of a 100% safety culture.

NTP: LEBO Process



- The contact indicator reflects the percentage of observed behaviours in the workplace
- TIR reflects the number of recordable injuries and illnesses

Pelchem

Pelchem's BBS programme, known as PEARL (Pelchem Eliminating Accidents and Risks of Life), continued to yield improved safety results. The Group achieved an average Behaviour Science Technology Process Index Score of 92% for the reporting period (March 2010: 95%). The Disabling Injury Incidence Rate (DIIR) stabilised at the same value as the previous year (0.80). The TIR in the same period reduced substantially to 3.55 at March 2011, down from 9.92 at March 2010.

Sustainability Report (continued)

SHEQ Performance

The following table summarises Necsa's SHEQ performance relative to previous years' performance:

No.	Description	Period								% Improvement (+) Deterioration (-)
		2003	2004	2005	2006	2007	2008	2009	2010	
1	Nuclear Events in terms for the International Nuclear Event Scale (INES) - INES rating = 0 - INES rating > 0	105 0	71 1	42 3	48 0	58 2	34 6	19 4	38 3	100 (-) 25 (+)
2	Average cumulative individual dose (mSv per person) for 12 months	0.72	0.69	0.73	0.70	0.74	0.64	0.79	0.77	2,5 +
	Number of persons who received a dose above 4 mSv (the 'as low as reasonably achievable' (ALARA) goal)	44	37	47	51	53	49	67	61	9 +
3	DIIR	1.52	1.15	2.02	1.26	1.26	0.89	0.89	0.52	53 (+)
4	TIR	14.6	13.2	11.3	8.9	6.0	5.8	4.8	4.3	10 (+)
5	DIs	24	18	28	20	23	14	16	10	38 (+)
6	Workdays lost due to DIs	466	718	319	189	679	429	188	171	9 (+)
7	Maximum man-hours worked without a DI	456,681	536,235	423,088	599,199	598,276	702,623	643,198	959,377	49 (+)

SHEQ Audits

Forty six SHEQ compliance audits were conducted during the course of the year. SHEQ-INS implementation and maintenance in the radiological and chemical facilities are at an acceptable level of above 80% compliance.

Nuclear Event Management Process

No major events related to environmental, public or worker's exposure occurred during 2011. Thirty three people from different facilities were trained in the Event Management Process (EMP). The intention is to train more EMP users as this will greatly improve the number of events that are reported.

Emergency Planning

Necsa completed the upgrade of the Emergency Control Centre. The centre is operational and was used during the FIFA 2010 World Cup™ Tournament.

Six Necsa site emergency exercises were held during the course of the year. Minor deficiencies were identified and an action plan to correct the deficiencies was compiled. A plan was also developed to assist the Madibeng Disaster Management Group to build capacity to ensure appropriate readiness levels to respond if and when the need arises.



Emergency Services

Necsa's Emergency Services, which provides service not only to Necsa but also to the community in the vicinity of the Pelindaba site, reacted to the following emergency calls:

Type of call	Necsa				Public			
	Number of calls		Number of patients transported		Number of calls		Number of patients transported	
	2011	2010	2011	2010	2011	2010	2010	2011
Fire	12	18	0	0	82	122	6	0
Vehicle accident	0	2	0	0	107	152	82	89
Ambulance calls	41	40	36	33	169	221	138	149
Total	53	60	36	33	358	495	226	238

Sustainable Radiation Protection Services

Significant resources were allocated to planning and implementing the nuclear safety plan during the FIFA World Cup™ Tournament. Strong relationships were built with the IAEA and the US DOE during implementation of this project.

Environmental Monitoring Programme

A comprehensive environmental monitoring programme is in place to meet the requirements of the Air Quality Act, the Nuclear Energy Act, the National Environmental Management Act and the National Water Act. Resource usage, waste generation, and impacts on media and ecology are monitored. These are illustrated in the following sections.

Compliance with Water Permit Requirements

Compliance is measured against the current water permit (permit no. 1874B). The following table reflects the effluent generated from October 2009 to September 2010.

Effluent released to:	Volume (m ³)		Permit Limit (m ³)	% Permitted	
	Oct 2009 to Sept 2010	Oct 2008 to Sept 2009		Oct 2009 to Sept 2010	Oct 2008 to Sept 2009
Crocodile River	162,455.3	146,673.8	250,000	65	58.7
PE Pans 1-5	9,720	3,555	19,000	51.1	19
Pan 6	153.0	933	8,500	1.8	11
PE Pans 7,8	109	Not measured	4,500	2.4	Not Measured
Pan 9	3,538.0	4,257	15 000	23.6	28
Total	175,975.3	155 418.8	365 500	48.1	42.5

Compliance with Air Permit Requirements

Total fluoride emissions of 1,804kg reflected a great improvement over the previous reporting period (2010: 2,790kg) largely due to improved operational control. The monthly site limit of 761kg was not exceeded during this year.

Compliance with Environmental Requirements of the Nuclear Licence
There were no nuclear occurrences which required reporting to the NNR for the period 1 April 2010 to 31 March 2011.

The calendar year 2010 modelled dose to the public, based on actual releases, was 0.005 mSv for the liquid pathways of authorised releases to the Crocodile River and 0.004 mSv for gaseous releases, giving a total of 0.009 mSv. In the previous year, the modelled dose was 0.003 mSv and 0.003 mSv respectively, with a total of 0.006 mSv. Necsa is in the process of agreeing new dose conversion factors with the NNR. Calculations with the new dose conversion factors will be compared to the results of calculations with the old dose conversion factors to establish parity with previous measures.

The environmental monitoring programme at Vaalputs was in full compliance with sample reporting levels. No nuclear occurrences were registered.

The data shows there is no significant dose impact to the environment due to Necsa's activities.

Energy Resource Usage

The Pelindaba site electricity consumption for the reporting year was 103 GWh (102.1 GWh for the previous period) representing an increase of 1.9% from the previous year.

Sustainability Report (continued)

Water Resource Usage

The following table reflects the water consumption for the period April 2010 – March 2011.

Resource	Amount (m ³)	Permitted amount (m ³)	% of permitted amount	% change year on year
Rand Water	893,302	400,000	223.3	0.8
River Water	111,230	840,000	13.2	8
Borehole	0	9,490	0	0
Total	1,004,532	1,249,490	80.4	1.6

The total volume of Rand Water usage exceeded the permitted amount due to refurbishment of the pump station and pumps at the river water inlet tower. This is also the reason why the river water usage was well below the permitted amount.

Nuclear Security

A Design Basis Threat is used to determine the type of security measures that are implemented at Necsa facilities. In accordance with international best practice, security at Necsa is achieved through implementation of a number of security layers referred to as defence-in-depth. These layers are designed to counter the assessed threat and can be reviewed periodically as the threat changes.

Access Control for Employees and Visitors

The access control system is the first barrier in the defence-in-depth system. For efficient access control, staff members who are well-trained and are able to handle daily volumes of Necsa staff members and visitors are used. There is a marked improvement in the access control and efficiency of the entire security system.

Necsa's Role During the 2010 FIFA World Cup™

Nuclear security was an important concern to Necsa and the nuclear community during the June 2010 FIFA World Cup™ Tournament. Security measures were heightened during the tournament to ensure that no unauthorised nuclear or radioactive material left the Necsa site with the potential to end up at any of the World Cup venues. There were no nuclear security-related incidents during the tournament.

Necsa also played a vital role in the technical performance of the entire nuclear security campaign during the tournament due to its nuclear and radiological safety expertise and emergency management capabilities in the county and in the African continent.

All games and movements at various stadiums and ports of entry were strictly monitored in accordance with the prepared nuclear and radiological safety and security plan. The completion of the 2010 FIFA World Cup games on 11 July 2010, with no real nuclear and radiological incident, marked the success of the campaign and tournament.

The resources provided by the State as well as by the IAEA and the US DOE were utilised effectively and efficiently to the benefit of Necsa and the entire country. The campaign on nuclear and radiological safety and security created a pool of skills which can be utilised anywhere in the country should the need arise.

Co-operation Agreements and Partnerships

Nuclear Security is achievable through adoption of international best practice and guidelines developed by the IAEA. South Africa is a signatory to many conventions and treaties which seek to promote nuclear non-proliferation. In this regard, Necsa has co-operative agreements in place with international role players to assess and improve nuclear security operations on an on-going basis. The IAEA's office of Nuclear Security assisted with the 2010 FIFA World Cup Nuclear Security preparations, providing valuable training which was vital to achieving an incident-free World Cup Tournament.

The Sandia National Laboratories of the US DOE provided key resources and expertise in improving security systems. Sandia has a five year collaborative agreement with Necsa.

National Key Point

As a National Key Point (NKP) in terms of the National Key Points Act, No. 102 of 1980, Necsa undergoes a NKP audit on an annual basis. The NKP office under the South African Police Force regulates security measures of every NKP in the country. The NKP audit focuses on management of the security operations, administration of the security officers, and the adequacy of the physical protection measures. The annual NKP audit was conducted on 2 August 2010 resulting in an overall score of 95.5%. This is an improvement compared to the previous audit conducted on the 25 September 2009, where the overall compliance score was 90.7%.

Joint Planning Committee

The Joint Planning Committee is a body which is established in terms of the NKP to regulate the affairs of the NKP and brings together various stakeholders such as the Police, State Security Agency, Necsa Security, Necsa Emergency Services, Madibeng Municipality and the NNR. A Necsa employee, Dr R Masango was appointed the new Chairperson



during the financial year. As per the requirement, four Committee meetings were held during the year.

Strategy and Performance

On 1 April 2010, Necsa established a dedicated Strategy and Performance Division to drive the development and implementation of a coherent and integrated strategy for the Necsa Group in order to fulfil its mandate as South Africa's primary nuclear institution and to achieve its business objectives. Additional responsibilities include:

- Evaluation and reporting on Necsa Group performance against predetermined objectives and indicators;
- Ensuring that the Necsa Group risk management processes meet best practice and stakeholder requirements;
- Co-ordinating the Necsa Group knowledge management programme; and
- Supporting business planning in line with Group strategy and priorities.

During the reporting period a long term strategy was developed for the Necsa Group as a whole and for key components of its three strategic clusters. This served as a guide for the compilation of the Corporate Plan for 2012–2014, which was submitted to the shareholder in February 2011.

Necsa's contribution to the development of the IRP 2010, approved by Cabinet in March 2011, was co-ordinated and Necsa participated in stakeholder discussions in this regard. The development of proposals for a South African Nuclear Energy Research, Development and Innovation Strategy and Implementation Plan was facilitated on behalf of the DST.

Management of the performance of the Necsa Group against predetermined objectives was improved by refining a balanced set of key performance indicators; by instituting quarterly performance reviews; and by augmenting processes for the collection of performance data in an auditable manner.

The Necsa Group risk management process was enhanced to ensure improved alignment with the King III Code on Corporate Governance as well as the new organisational structure.

Studies completed in support of South Africa's nuclear energy expansion programme as per the IRP 2010 included:

- A site selection study which evaluates different sites in South Africa that would be suitable to accommodate facilities to manufacture nuclear fuel as part of a South African developed NFC. The establishment of such facilities will be subjected to the NNR's licensing and authorisation processes; and
- A uranium resources study aimed at beneficiating local reserves for the South African nuclear energy expansion programme.

Finance and Information Management

The Finance and Information Management division of Necsa fulfils several critical functions which are described below:

Allocation of Resources to Support Necsa's Strategic Objectives and Priorities

- Developing a financial strategy and model that are aligned with the Necsa Group priorities;
- Assisting in the implementation of Necsa strategy by quantifying operational intentions and interpreting the financial implications thereof;
- Providing the required analysis and information as a key business enabler for decision making; and
- Implementing cost control measures to ensure budget adherence as well as optimisation and prioritisation.

Supply Chain Management

- Developing procurement and provisioning, cash and credit management policies and procedures for the Group;
- Managing compliance with all relevant legislation, internal policies and procedures and codes of good practice; and
- Providing contract management and financial advisory support.

Financial Risk Management and Governance

- The review, improvement and maintenance of financial controls, policies and procedures to comply with relevant regulations and guidelines;
- The production of Financial Statements that comply with Treasury Guidelines, SA GAAP, the Public Finance Management Act (PFMA), No. 1 of 1999, the Companies Act and other relevant legislation and practices; and
- The development and implementation of a financial risk framework to prevent fruitless expenditure, inappropriate exposure to risks and reckless use or application of resources.

Sustainability Report (continued)

Systems and Controls

- Implementing appropriate systems and controls to ensure Necsa Group compliance with all internal policies and procedures as well as relevant legislation and regulations with regard to the financial, Information Technology (IT) and property management environment.

Information Systems

- In order to enhance the integrity, efficiency and cost-effectiveness of Necsa's financial and related systems a number of projects were initiated, including Expanded Workflows, Server Virtualisation (VMWare) System, Intrusion Detection and Prevention System and IT DRP.

Business Indicators

Purchases

Purchases for the Necsa Group amounted to R817 million, reflecting a 9.08% increase over the previous reporting period. This resulted mainly from price increases in products, materials and equipment, as well as non-routine purchases.

The top ten suppliers, as well as the products and/or services supplied to Necsa are tabled below, with the amounts spent on purchases expressed as a percentage of Necsa's total purchases for the reporting period:

Top 10 Suppliers for the Necsa Group

	Supplier	Product/Service rendered	R'000	%
1	Institut National Des Radioele	Mo-99-Backup supply	139,496	17.07
2	Cerca	Radiation material and equipment	51,596	6.31
3	Eskom	Electricity	41,186	5.04
4	National Nuclear Regulator	Nuclear licensing	22,942	2.81
5	Vergenoeg Mining Company (Pty) Ltd	Raw materials	17,802	2.18
6	Sasol Oil Fuel Marketing (Pty) Ltd	Fuel	10,845	1.33
7	Protea Industrial Chemicals (Pty) Ltd	Chemicals	7,984	0.98
8	Gem Tool Company	Equipment and tools	6,853	0.84
9	Zedacar Leasing (Pty) Ltd	Fleet transport	6,485	0.79
10	Glenrand MIB	Insurance	6,173	0.76
	Total		311,362	38.10

Broad-based Black Economic Empowerment

In support of government's economic transformation and the Broad-based Black Economic Empowerment (BBBEE) Act, No. 53 of 2003, Necsa endeavours to foster business relationships with companies that include Black participation within their organisational structures. Necsa's policy for preferential procurement from BBBEE companies is based on the Department of Trade and Industry (**the dti**) Codes of Good Practice and within the levels specified.

BBBEE Spend on Orders Placed

As at 31 March 2011 the Necsa Group had a total of 1,118 suppliers which represents a decrease of 39.4% in suppliers since the previous reporting period. Of these, 498 or 44.5% are BBBEE rated suppliers, with accreditation levels ranging from 1 to 8. Purchases from BBBEE suppliers amounted to 29.2% (R238.3 million) of the Necsa Group procurement spend (excluding foreign orders), as indicated in the table below:

	Total 2011			Total 2010		
	No. of orders	No. of suppliers	Value	Orders	Suppliers	Value
No. of BBBEE orders	7,369	498	R238.3 m	7,177	769	R475.6 m
% of total orders	43.3%	44.5%	29.2%	43.9%	42.0%	36.5%

The number of BBBEE suppliers decreased, due mainly to the BBBEE ratings of some suppliers having expired during the financial year.

BBBEE Ratings

The annual BBBEE evaluation process was undertaken by an independent agency, accredited by SANAS. All subsidiary companies within the Group apply the Necsa Group rating except for NTP which is accredited separately.

Necsa Group

The Necsa Group was assessed as a Level 4 contributor with a BBBEE procurement recognition level of 100%. As a value-adding supplier, a final BBBEE procurement recognition of 125% was recorded. Areas that require improvement in the future relate mainly to employment equity and skills development. The Group has performed well on preferential procurement and socio-economic development.



Necsa

Necsa was assessed as a Level 3 contributor with a BBBEE procurement recognition level of 110%. Further, as a value-adding supplier, Necsa received a final BBBEE procurement recognition of 137.5%. Areas that require improvement in the future relate mainly to employment equity and skills development. Necsa has performed well on preferential procurement, enterprise development and socio-economic development.

NTP

NTP was assessed as a Level 4 contributor with a BBBEE procurement recognition level of 100%. Further, as a value-adding supplier, NTP received a final BBBEE procurement recognition of 125%. Enterprise Development was identified as an area of improvement going forward.

Information Technology Indicators

IT Governance

IT governance is a Board responsibility requiring it to report that it is satisfied with the effectiveness of the organisation's IT governance. Accordingly management has established an IT governance framework including policies and procedures, decision-making structures, accountability framework, internal control and IT reporting requirements. The IT framework is continuously being aligned with the organisation's performance and sustainability objectives to enable and support Group strategy.

For it to be effective, IT governance is integrated into all strategic and business processes.

The governance of IT is being fully aligned with the requirements of the King III Report on Corporate Governance with respect to:

- Executive Responsibility for IT;
- The alignment of IT to the business objectives;
- The monitoring and evaluation of IT investments;
- IT Risk Management; and
- Information and IT asset management.

Some key projects that deserve mention are as follows:

New Human Resource and payroll system

The new Human Resource (HR) and Payroll System was successfully implemented. Phase II of this important project is under way and will have functionalities such as Manager Self Service and Employee Self Service.

Necsa Knowledge Management System

The development of the system was completed. Final testing and commissioning will occur in the new financial year.

IT Disaster Recovery Plan

Necsa commenced with the implementation of a Disaster Recovery Site during the previous reporting period. The completion of the IT Disaster Recovery facility is scheduled for the end of April 2011.

The Disaster Recovery Plan is aligned with the Necsa Emergency procedures as well as the Necsa Business Continuity Plan.

Business Intelligence Reporting

The identification and implementation of a Business Intelligence Tool that will facilitate the delivery of appropriate management reports on Finance commenced.

Research Information Management System

The DST implemented a new Research Information Management System (RIMS) that will consolidate research management information from all Universities and Science Councils. Necsa is in the process of rolling out the RIMS system, which will be completed during the next financial year.

Connection to the South African Research Network

The South African National Research Network (SANReN) is a high speed internet facility connecting all Science Councils and Institutions of Higher Learning to the internet. Adequate bandwidth is essential for researchers to perform their mandate effectively.

Necsa was identified as a priority site for connection to the SANReN network, but extended delays were experienced in deploying the physical infrastructure to Pelindaba. Necsa is expected to be connected to the SANReN network during the course of the next financial year.

Sustainability Report (continued)

Marketing and Communication

The use of nuclear science and associated technologies is generally misunderstood by the public due to a lack of the correct and appropriate information. It is important, therefore to inform stakeholders about the risks, benefits and safety of nuclear technologies. To this end, Necsa initiates and sustains public and other stakeholder awareness through positive and constructive communication to enhance and promote Necsa as the custodian of nuclear research and development; isotope manufacturing; and other nuclear related initiatives, both nationally and internationally.

During the review period, Necsa pursued an aggressive external marketing and communication focus, to create a platform from which technical experts will be able to market Necsa's technical nuclear capabilities, services and products.

Stakeholder Relations

A total of 47 internal and external stakeholder events were successfully completed in the reporting period, addressing the full spectrum of identified stakeholders. The following statutory events are highlighted:

Pelindaba Public Safety Information Forum

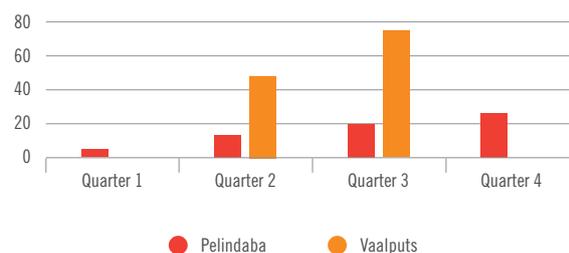
The Pelindaba Public Safety Information Forum (PSIF) was established by Necsa, in accordance with the Department of Minerals and Energy Regulation No. 26112, as promulgated in the Government Gazette of 12 March 2004, as part of the National Nuclear Regulator Act, No. 47 of 1999. Meetings are advertised in advance and held on a quarterly basis with the members of the community who live within a radius of 5km of the nuclear reactor. The Chairperson and Deputy Chairperson are independently appointed by the NNR, with Necsa, as the licence holder, providing the secretariat for the meeting.

The main objective of this forum is to facilitate interaction with community members and keep stakeholders informed on safety matters. It was agreed that as from 2011, all Pelindaba PSIF meetings will be held at the Necsa Visitor Centre.

Vaalputs Public Safety Information Forum

In terms of the regulation defined above, the Necsa emergency planning zone is not required for Vaalputs; however, due to Necsa's stakeholder relation ties with the communities around Vaalputs, the Company meets on a quarterly basis with communities in the Kamiesberg District to keep them informed about the safety of the Vaalputs low and intermediate level Nuclear Waste Disposal Site. During 2010/11 only two meetings were held in the vicinity of Vaalputs due to unfavourable weather conditions.

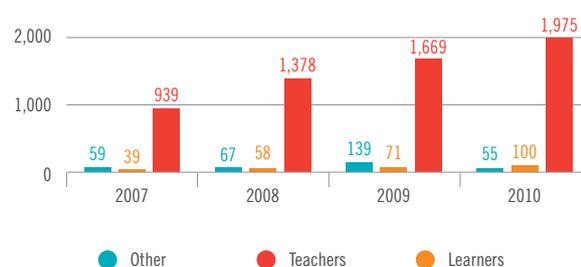
PSIF Attendance for the Year 2011



Schools Outreach Programme

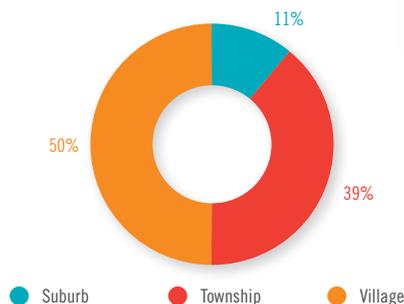
Necsa has participated in National Science Week (NSW) since 2006 with constantly increasing attendance. During the year 2,075 learners and educators from 41 different schools across the country attended the NSW programme, hosted at Necsa. The reach of Necsa's participation increased in terms of previously disadvantaged communities with 50% of the learners during the reporting period being from rural villages.

NSW Attendance for the Past Four Years



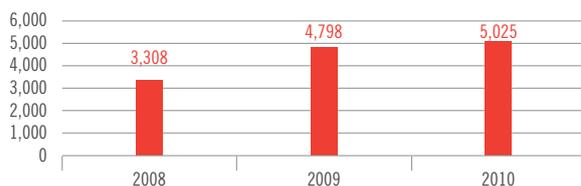


NSW Attendance by Geographic Location



Public Participation

Visitors to Necsa for the Past Three Years



Exhibitions

Necsa participated in the following exhibitions during the review period:

- Exhibition at the 35th World Nuclear Association Annual Symposium – held in London from 15 to 17 September 2010;
- Exhibition and Sponsorship at the 32nd International Meeting on Reduced Enrichment for Research and Test Reactors – held in Lisbon, Portugal, from 10 to 14 October 2010; and
- Exhibition at the IAEA Annual General Conference – held in Vienna. South Africa's exhibition was conceptualised and led by Necsa to showcase the national nuclear industry on an international platform. The Nuclear Industry Association of South Africa (NIASA), NNR, Eskom, DoE and Necsa featured equally in the exhibition.

Necsa Visitor Centre

This state-of-the-art facility was officially launched by the Minister of Energy, Ms Dipuo Peters, on 3 February 2011 and officially opened to the public on 27 May 2011. The intention is that the Centre will be further developed in the future to provide an enhanced educational function, including laboratory facilities for learners from disadvantaged schools.

Socio Economic Development

Necsa

In the year under review, Necsa continued its involvement in Community Development. A bursary was granted to a student from the Northern Cape to study for a National Diploma in Electrical Engineering.

During January 2011, 11 interns were enrolled at Necsa's NSD Centre to complete studies in the following disciplines:

Discipline	Number of enrolled interns
Boiler maker	5
Electrical	3
Turner	1
Fitter & Turner	2
Total	11

A successful 'Do-It-Yourself' course was presented by Necsa's NSD Centre to the community members of Nourivier and Soebatsfontein in the Northern Cape. A total of 70 people attended the course, which covered the basics of Mechanical and Electrical work.

As part of an agreement with the Vaalputs community, Necsa outsourced the catering for the PSIF meetings to local schools, in order for them to raise funds for their organisations. A donation to fund a Christmas party was made to the Spoegrivier Nursery School.

The above initiatives were recognised by the appointed independent, accredited BBBEE rating agency, as compliant in all respects with the requirements for full recognition in the socio-economic development code.

NTP

NTP complies with the BBBEE Act, No. 53 of 2003 regarding socio-economic development. Initiatives focus on the transformation of disadvantaged communities in the Pelindaba vicinity, primarily in the areas of health care and education. The following health-related initiatives were completed in the reporting period:

- *Positron Emission Tomography (PET) Camera destined for Tygerberg Hospital:* The camera will be installed and functional by the fourth quarter of 2011;
- *CANSA Shavathon:* NTP hosts an annual sprayathon/shavathon day to raise money in aid of CANSA. Proceeds also benefit the Brits-Hartbeespoort Hospice, where in excess of 75% of patients are Black;

Sustainability Report (continued)

- *Ride for Hope Cycling Challenge:* Annually NTP organises and participates in a long distance cycling event. The aim of the event is to raise funds for CANSA and to create awareness amongst rural communities that, if presented early for medical assistance, cancer can be cured and that nuclear medicine plays an important role in detecting and treating cancer; and
- *CANSA Mobile Clinics:* As part of the Ride for Hope Campaign, NTP sponsors pathology tests for rural women. This is carried out in conjunction with the CANSA mobile clinic facility. 100% of beneficiaries are Black.

Adopt-a-School initiatives were conducted at Ennis Thabong School and Re-e-Lwele Primary School, where learners received school bags and stationery sets. RapeWise and Anti-Human Trafficking presentations were conducted at both schools during the period. Other initiatives at these schools were as follows:

- *Ennis Thabong School:* NTP adopted this farm school, which has approximately 280 students, in 2007. NTP has helped to bring the school to a level of sustainability, and is committed to supporting the school with general repairs to the buildings and work closely with the school's principal to identify future needs. An annual volunteer day was held at the outset of the school year to clean up the grounds and to plant seedlings for the season ahead. NTP and Necsa staff, the local community, students and educators gathered to lend a helping hand on the day. Grade seven learners and educators benefited from a sponsored educational tour to the Cradle of Humankind and the Sterkfontein Caves.
- *Re-e-Lwele Primary School:* In 2010 NTP adopted this school, situated in Broederstroom, which is in dire need of a fully fitted library, a computer room, general repairs, a transformer and electric cables. NTP is committed to bringing the school up to self-sustainability.

Pelchem

Pelchem continues to provide financial support through donations and the purchase of products for use as corporate gifts from the Equip (Skills for Life) Project in Diepsloot. The Equip Project provides skills development to unemployed people in the Diepsloot informal settlement to enable them to become self-supporting.

Communication and Media Relations

Necsa's communication and media focus is strategically aligned to maximise reciprocal communication between Necsa and its diverse stakeholders. Through the utilisation of IT systems to receive, analyse,

interpret, transmit, disseminate and catalogue relevant information regarding issues affecting the nuclear industry, it was possible to reach a broader spectrum of stakeholders.

Media Releases

The organisation released an extensive portfolio of media statements and several interviews were granted by the CEO and other specialists. As a consequence, major events and sensitive issues were addressed, with the following receiving special media attention:

- Nuclear Security for FIFA 2010 World Cup™;
- Presentation of the Necsa Annual Report 2010;
- Necsa Visitor Centre Launch;
- Decentralised Trade Test Centre Launch;
- The State visit to France by President Zuma;
- The Japanese earthquake and tsunami disaster and the resultant challenges at the Fukushima nuclear plant; and
- The approval of the IRP 2010 by Cabinet.

Media Campaigns

The year under review saw the continued establishment of new relationships with various print and broadcast media, both locally and internationally, to advance the nuclear industry.

An unprecedented 'Nuclear Awareness Advertising Campaign' was launched in February 2011, announcing the newly opened Necsa Visitor Centre. This campaign focused on:

- Demystifying nuclear myths;
- Contextualising South Africa's nuclear heritage;
- Informing the public about nuclear science and technology; and
- Inspiring learners to take up careers in nuclear science and technology.

This twelve-month campaign, promoted through radio, print, industrial theatre, web-sites, social media and other appropriate marketing channels, will continue into the next reporting period.

Networking

Partnerships, alliances and networking opportunities were created to engage directly with key dignitaries to further the Necsa mandate. These included the Minister of Energy, Ms Dipuo Peters; the Minister of Trade and Industry, Dr Rob Davies; and the Minister of Public Works, Ms Gwen Mahlangu-Nkabinde. Communication networks at local and



international conferences and exhibitions were utilised to ensure the wide dissemination of targeted messaging and promotional materials to global markets and stakeholders.

Communication with Stakeholders

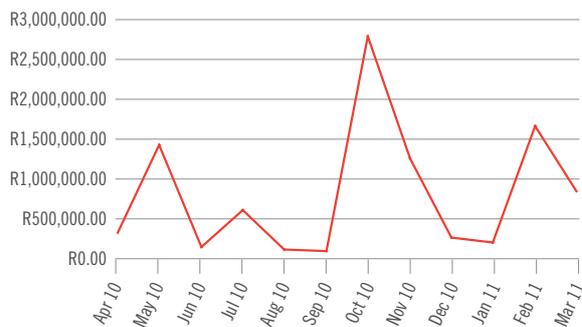
Necsa has adopted a guideline/policy for communicating with stakeholders. This is achieved by keeping an updated list of all stakeholder clusters and engaging with them via electronic communication systems and other means.

Publicity

In addition to the initiatives described above, the Necsa brand and reputation was assertively profiled as a credible source of opinion during the Fukushima incident by a '24/7 Media Monitoring Team'. Necsa published material on its website following the incident and the opportunity was also used as a platform to unpack popular myths about nuclear in general and the Fukushima incident itself. Ironically, this tragedy provided a global platform to accentuate the safety features that are inherent in the nuclear industry.

The following national Advertising Value Equivalency (AVE) figures for the period were provided by an independent media monitoring agent. AVE is a measure used in the public relations industry to quantify the benefit from media coverage of public relations exposure. AVEs commonly measure the size of the coverage gained and its placement and calculate what the equivalent amount of space, if paid for as advertising, would cost:

Advertising Value Equivalency (AVE) for the Period April 2010 – March 2011



Disclosure of Information

Necsa has adopted a system/policy of information disclosure and

engagement with various stakeholders and the media; this is done carefully without disclosing security related information and/or information which might harm the Group's commercial competitiveness. In the past year, no requests for disclosure of information were lodged via the Access to Information Act, No. 2 of 2000.

Knowledge Management

Library and archival services were expanded to accommodate the increased knowledge management demands at Necsa. Activities will increasingly focus on the establishment of an integrated approach to the generation, capture, digitisation, transfer and preservation of critical knowledge.

Good relationships are maintained with stakeholders such as the Southern African Inter-library Loan Scheme, Sabinet Online, the North West Public Library System and the International Nuclear Information System of the IAEA.

Library Services

Library services rendered included traditional services such as acquisitions, journal subscriptions, lending services, cataloguing, databases and information services, with an increased emphasis on e-resources.

Knowledge Management

Knowledge management and archival services included the compilation of a register and database of records collections and information resources, as well as the digitisation of archival material.

International Relations

Necsa seeks to establish bilateral relations with foreign nuclear institutions that are able to support and enhance Necsa's international strategies. These bilateral relations are normally formalised by way of Memorandums of Understanding (MoUs) or Agreements (MoAs) that are typically concluded under the umbrella of a Bilateral Agreement between South Africa and the country in question, either on Science and Technology or specifically on Nuclear Co-operation.

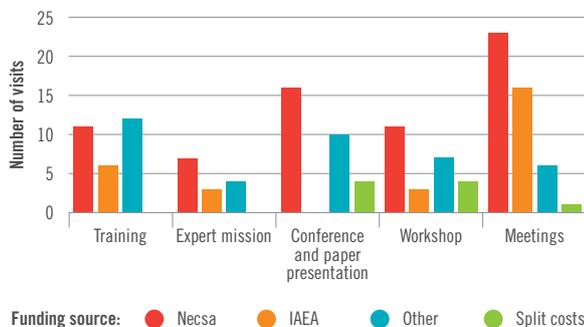
At the multilateral level, Necsa maintains close relations with the IAEA and a variety of regional international nuclear-related institutions, such as AFRA, AFCONE, and the World Nuclear Association (WNA), in terms of international treaties and agreements that South Africa has acceded to and by which Necsa is in consequence bound.

Sustainability Report (continued)

Highlights

- In the course of the 2010/11 financial year, International Relations monitored 144 outgoing international visits by 272 officials in which 31 countries were visited;

Types of Visit and Funding Source



No IAEA Conference and Paper Presentations were carried out during the reporting period

- A Necca delegation attended nuclear industry side-events around the 2010 Nuclear Security Summit in Washington, in April 2010. The objective of the delegation was to promote NTP's accomplishment as the first commercial producer of medical isotopes using an entirely LEU production process and to announce Necca's bid to be the preferred manufacturer and supplier of Mo-99 to the US medical market;
- Necca supported the Energy Week of the 2010 Shanghai International Expo in July 2010, where South Africa had built a national pavilion. Necca exhibited in the South African pavilion during the Energy Week and various other meetings were arranged to advance Necca's marketing goals; and
- In September 2010, the CEO presented a paper entitled "Strategic and Commercial considerations in the production and supply of radioisotopes" at the 35th Annual WNA Symposium in the UK. The presentation was reported in the WNA electronic newsletter.

Agreements

- In terms of mandates from the respective Departments of Energy, a contract and agreement was concluded on 24 August 2010 between the NNSA of the US DOE and Necca, to repatriate spent fuel of US origin that was delivered in the 1960s; and
- Two Letters of Intent (LOI) were signed between Necca and respectively, the CEA of France and AREVA, in Paris in March 2011, in the course of the State Visit to France by President Zuma and in

the presence of the French and South African Ministers of Energy, as well as the South African Minister of Trade and Industry.

- The LOI with CEA of France, essentially a government-funded research body, covers joint co-operation in a number of research areas, including High Performance Computing and nuclear waste management, as well as the promotion of public understanding of nuclear technology.
- The LOI with AREVA, a commercial nuclear vendor, covers several aspects of the nuclear fuel cycle, as well as the training of individuals employed in the South African nuclear industry. This gives direction to the existing ARECSA (Pty) Ltd joint venture between Necca and AREVA, which utilises National Industrial Participation offset agreements to fund training.

Both LOIs fall under the umbrella of the Nuclear Energy Agreement signed between South Africa and France in 1996.

IAEA and AFRA

The fundamental role played by Necca as the focal point for Technical Co-operation (TC) programmes between the IAEA and the South African government has seen South Africa being regarded as both a donor and recipient of research development assistance. Necca not only facilitates and co-ordinates the participation of the South African institutions, universities and research laboratories in the IAEA TC programme, but also administers fellowship stipends on behalf of the IAEA.

Necca released experts to lecture at meetings and workshops at the request of the Division for Africa of the IAEA, through the African Regional Co-operative Agreement for Research, Development and Training related to Nuclear Science and Technology.

Highlights

- South Africa participated in seven national projects and thirty six regional and inter-regional projects;
- Twenty one experts assisted South Africa in various nuclear fields;
- One hundred and four South Africans rendered services to various countries;
- One hundred and sixteen South Africans participated as lecturers and delegates in TC activities;
- South Africa hosted eighty-eight fellows and thirteen scientific visitors; and
- Eight South Africans accepted fellowships and a further eight were accepted as scientific visitors.



Country Programme Framework

In the period under review, the 3rd Country Programme Framework was finalised and submitted to the IAEA for review. Three health projects and three industry projects were also submitted for funding in the 2012/13 TC cycle.

IAEA/AFRA Related Activities

Several expert consultancies were undertaken to various countries globally, extending as far as Jordan.

Neutron Source Repatriation Project	Borehole Disposal Concept	Spent High Activity Radioactive Sources (SHARS) Mobile Hot Cell	Recovery of High Activity Sources
<ul style="list-style-type: none"> IAEA project to recover more than 200 neutron sources in Africa not being implemented as yet. 	<ul style="list-style-type: none"> Developed by Necsa. The purpose of the concept is to provide a facility for the disposal of disused sealed radioactive sources. Necsa participated in the second IAEA expert mission to Ghana during 2010 to evaluate progress made with site characterisation for the first Borehole Disposal facility. Necsa was requested by the IAEA to assist in the further training of persons from Ghana. 	<ul style="list-style-type: none"> Necsa designed and manufactured a mobile hot cell specifically for the handling and conditioning of SHARS from teletherapy units and dry irradiators. This unit, a first in the world, was used successfully in Sudan and Tanzania in 2009. Necsa was contracted by the IAEA in 2010 to recover and condition 14 SHARS in Uruguay and transport them back to their countries of origin. The operation was successfully completed. 	<ul style="list-style-type: none"> Necsa was contracted by the IAEA in 2010 to collect, and remove to the Necsa site, a number of disused high activity sealed radioactive sources from various institutions in South Africa in view of the then upcoming FIFA World Cup™ event that took place in June 2010.

Local Resource Mobilisation

The main focus of local R&D resource mobilisation has been on funding through the NRF programmes. During a typical process, grant call information was examined and disseminated to prospective applicants. Applications received were reviewed for quality and adherence to grant criteria and requirements, and recommendations were suggested and/or changes made. After the validation process, the submissions were endorsed and submitted to the funding institution. Individual requests were also received and possible sources of funding investigated.

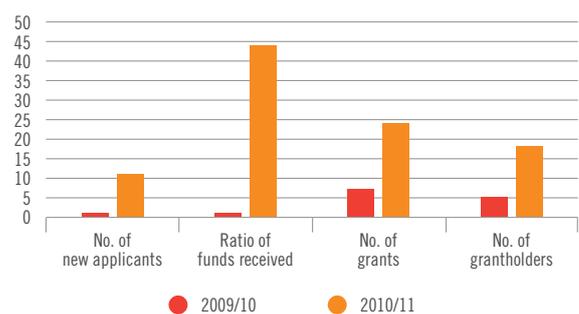
Outcomes

Continued liaison with key stakeholders resulted in a significant increase in the number of applications submitted. The participation of younger researchers also increased.

During the period under review, 24 applications for funding were submitted, of which 22 were successful. The total amount paid by the NRF amounted to R14,784,819. The bulk of this award was a R13.18 million equipment grant, received for the funding of a neutron radiography/tomography facility.

The graph below illustrates the increase in funding received between the previous and current reporting periods.

Applications and Grants – 2009/10 – 2010/11



Human Resources

Human Resource (HR) requirements and operations at Necsa are driven by:

- The Necsa Business Plan* – To build technical HR capacity through innovative human resources development initiatives;
- HR Strategic Direction* – Talent Management and Organisational Change Management; and
- HR Strategic Objectives* – Human capacity building to ensure that Necsa is able to fulfil its strategic imperatives.

Sustainability Report (continued)

Necsa Group Staff Composition

The Necsa Group staff complement increased by 3.12% from 2,113 in the previous reporting period, to 2,179. In the same period, the number of Female employees increased by 7.5% from 607 to 653.

The number of contract staff decreased to 311 (2010: 333), in line with Necsa's strategy to co-ordinate and consolidate its workforce to deliver on its strategic mandate.

Necsa Group Staff Composition in Accordance with Internal Band Structure

Job category	Total	Black	White	Female
Directors	23	16	7	6
Management	139	44	95	31
Engineers	69	21	48	14
Scientists	115	53	62	29
Other professionals	147	41	106	42
Supervisors	99	33	66	9
Operators	242	189	53	22
Artisans	108	38	70	3
Technicians	130	94	36	54
Skilled	430	193	237	214
Semi-skilled	328	260	68	101
Unskilled	38	38	0	12
Contract staff	311	162	149	116
Grand total 31 March 2011*	2,179	1,182	997	653
Grand total 31 March 2010	2,113	1,151	962	607

* These figures include AEC-Amersham, Gammatec NDT, NTP Logistics and Directors)

Necsa Group Employment Equity

Necsa Group Employment Equity Performance

Occupation categories	Total employee strength		2011		Targets 2006–2011		Performance targets 2006–2011		Targets 2011–2015	
	2010	2011	Black (M & F)	Female (B & W)	Black (M & F)	Female (B & W)	Black (M & F)	Female (B & W)	Black (M & F)	Female (B & W)
Board of Directors	23	23	16	6	50%	45%	69.6%	26.1%	Target achieved	45.0%
Management	126	139	44	31	50%	45%	31.7%	22.3%	40.0%	25.0%
Engineers	63	69	21	14	51%	23%	30.4%	20.3%	51.0%	25.0%
Scientists	100	115	53	29	40%	30%	53.9%	25.2%	50.0%	35.0%
Other professionals	150	147	41	42	35%	30%	27.9%	28.6%	35.0%	30.0%
Supervisors	94	99	33	9	25%	15%	33.3%	9.1%	30.0%	15.0%
Operators	250	242	189	22	65%	10%	78.1%	9.1%	Target achieved	10.0%
Artisans	109	108	38	3	40%	3%	35.2%	2.8%	40.0%	3.0%
Technicians	136	130	94	54	60%	40%	73.8%	41.5%	Target achieved	45.0%
Skilled	394	430	193	214	25%	50%	44.9%	49.8%	50.0%	50.0%
Semi-skilled	305	328	260	101	65%	40%	79.3%	30.8%	Target achieved	40.0%
Unskilled	30	38	38	12	80%	25%	100.0%	31.6%	Target achieved	40.0%
Total	1,780	1,868	1,020	537						

Notes:

1. The Table represents Black and Female employees only and does not include all employees per level.
2. Figures are for Necsa Group (including subsidiaries).
3. Contract workers are excluded.



Staff Movements

Appointments and exits during the period are reflected in the following table:

Appointments and Exits per Job Category: April 2010 – March 2011

Job category	Designated group		Total employees	
	Appointments	Exits	Appointments	Exits
Management	4	2	8	8
Engineers	6	3	15	9
Scientists	13	5	22	7
Other professionals	4	2	9	6
Supervisors	3	2	6	4
Operators	22	7	27	13
Artisans	2	1	2	3
Technicians	5	8	7	9
Skilled	26	12	36	31
Semi-skilled	34	13	43	15
Unskilled	20	2	20	2
Contract staff	115	149	227	249
Grand total	254	206	422	356

Necsa was able to absorb 51 PBMR specialists (30 contract and 21 permanent staff) into its own structures, with the total cost of remuneration packages being R30 million.

Workplace Climate Indicators

The review period reflected a stabilisation in staff turnover in the management category and a decrease in the technical category. However there was a significant increase in the turnover of engineers and scientists compared to the previous reporting period.

Staff Turnover in Critical Skills Categories – %

Job category	2011	2010	2009	2008
Management	6.0	6.6	6.9	4.8
Engineers and scientists	9.2	5.8	10.8	10.7
Technicians	6.8	9.4	9.2	14.8

Disciplinary Hearings, Grievances and Sick Leave

Description	2011	2010	2009	2008
Disciplinary actions (number)	20	55	33	45
Grievances registered (Number)	3	13	36	13
Sick leave (days per person per month)	0.50	0.59	0.63	0.68

Labour Union Membership

The Union statistics on 31 March 2011 were as follows:

Unionised*	Number	Percentage
Pelindaba Workers Union	697	37.8%
Solidarity Union	217	11.7%
Sub-total	914	49.5%
Non-unionised	931	50.5%
Total	1,845*	100.0%

* Excluding Directors and Contract Staff

HR Training and Development

Study Assistance Scheme

The Study Assistance Scheme was introduced in November 2009 to replace the Study Concession Scheme and is applicable to all permanent Necsa employees. The aim of the scheme is to assist employees financially with their career development at a reputable tertiary institution of choice. Since its inception, 269 successful applications were processed, of which 60% were for technical qualifications, 30% for support services and 10% for PhD and Masters Degrees.

Mentoring and Coaching

The second phase of the Mentorship Programme commenced during the period, with 106 mentors and mentees. Of these, 47 mentors were trained in mentoring skills and 59 mentees were trained in behavioural skills in order to sensitise them to the importance of balancing technical and behavioural skills in their career development. Mentees were required to present their work and findings to a selected audience at the end of the programme, which culminated in a graduation ceremony on 26 November 2010.

The need to enhance the impact and effectiveness of the Executive Leadership at Necsa was identified. A Group Executive coaching programme was designed to enhance their individual development and the effective leadership of their divisions. Seven Executives participated in the programme and six have been assessed. Four of the assessed Group Executives started coaching sessions, which are facilitated by a specialist executive coach. The third phase of the programme will commence in April 2011 and will be completed in October 2012.

Sustainability Report (continued)

Necsa Graduate Support Programme

As part of Necsa's drive to build sustainable technical human resource capacity, the Necsa Graduate Support Programme was developed to create a sustainable pool of critical skills in alignment with Necsa's strategic imperatives. The programme comprises the Graduate in Training Scheme, the Undergraduate Bursary Scheme, and the Postgraduate Bursary Scheme. The number of graduates in training (engineers, physicists and scientists) increased from 18 to 25 and the number of bursary students to 36.

Necsa awarded 10 new undergraduate bursaries in January 2011 and took over the undergraduate training of 10 undergraduates previously with PBMR, mainly in the field of engineering and chemistry.

Necsa also has a total of 16 postgraduate bursars, mainly in physics and sciences.

Necsa Apprenticeships, Internships and Graduate Development

In continued support of the National Skills Development Strategy, Necsa undertakes the training of learners funded and supported by CHIETA, the DST and the Automotive Industry Development Centre (AIDC). During the reporting year, the number of people trained at Necsa in these programmes was as follows:

Discipline	Internships/ graduates in training		Apprenticeships		Total	
	M	F	M	F	M	F
Boiler making			4		4	
BSc	16	8			16	8
BEng	1				1	
BTech	4	2			4	2
Electrical engineering			9	3	9	3
Fitter			1		1	
ND	4	3			4	3
Instrumentation			4	1	4	1
Millwright			1		1	
MEng	1	1			1	1
MSc	8	8			8	8
MTech	1				1	
Fitter and turner	2				2	
Turner			2	1	2	1
PhD	2	3			2	3
Total	39	25	21	5	60	30

NTP CHIETA Learnerships

In addition to the above, nine internships were applied for through NTP's 2010/11 Workplace Skills Programme.

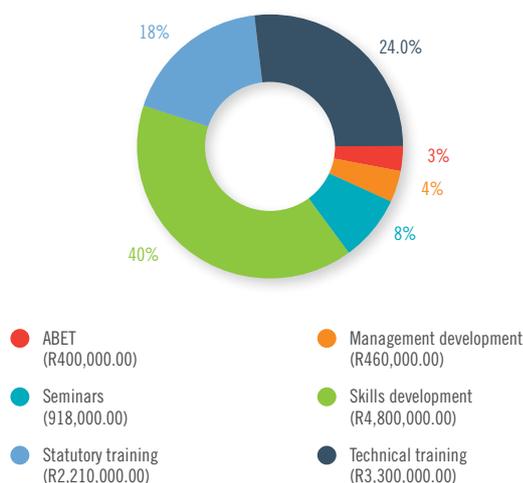
Adult Basic Education and Training (ABET)

In the 2010/11 period, 96 employees were enrolled for the ABET programme, of whom 59 were declared competent in Communications in English and in Mathematics Literacy after writing examinations and submitting portfolios of evidence. Of these learners, 23 wrote and passed the Independent Examination Board (IEB) exams at NQF level 1.

ABET and IEB Outcomes – Necsa Group

Level	Communications in English	Mathematics literacy
Level 1	4	2
Level 2	9	4
Level 3	15	2
Level 4/NQF 1	14	9
Total	42	17

Training spend



Nuclear Skills Development Centre

The Nuclear Skills Development (NSD) Centre continues to grow and fulfil its mandate in responding to the call made by government through the National Skills Development Strategy. The quality of training is highly regarded, resulting in partnerships with several clients such as the Department of Public Works (100 students), the Development Bank



of South Africa (150 students), Alstom (55 students), DB Thermal (35 students) and others (88) on job creation projects. The Centre is fully utilised and continues to attract new clients.

In its goal to become a one stop training facility to industrial clients, the Centre established a Decentralised Trade Test Centre, accredited by the appropriate Sector Education and Training Authorities (SETAs), to undertake the final national trade tests for artisans. This modern facility was funded by **the dti** and was officially opened by the Minister of Trade and Industry, Dr Rob Davies on 4 February 2011.

A project was initiated through the Safety and Security SETA (SASSETA) to obtain accreditation as a service provider for security learnership training in NQF Levels 3 and 4, National Key Point and Firearms Training. Accreditation was obtained on 12 December 2010, which will allow for the learnership training of 10 learners through CHIETA in 2011.

Organisational Renewal Interventions

Dinaledi Awards

These Awards are made internally to recognise groups and individuals who make outstanding contributions to the organisation.

Nominations for the Reporting Year

Informal individual nominations	Informal Group nominations	Formal individual nominations	Formal Group nominations
36	13 (62 individuals)	5	4 (14 individuals)

The winners for the following categories were:

- Nurturer Nuclear Skills Development Team (HR)
- Energiser Individual (R&D)
- Innovator Individual (SAFARI-1)
- Promoter Nuclear Fuel Cycle Team (NTI)
- Activator Individual (SAFARI-1)

A formal Dinaledi Awards function was held on 23 March 2011, where four groups and five individuals were honoured for their valuable contributions to Necsa's business processes.

Competency Framework

The Necsa Competency Framework was successfully developed in

August 2010 by an external service provider. This stemmed from the need to attract, select, develop and retain the right people, based on the effective identification and validation of appropriate behavioural and technical competencies for each role. A competency library was established based on the 316 employees who went through the validation process, to integrate them into other HR processes such as:

- Competency-based recruitment practices (i.e. interviewing and assessments);
- Targeted training and development interventions;
- Performance management;
- Job profiling; and
- Career ladders.

Assessments

An assessment centre was established in August 2010, in line with best practice and in accordance with the Health Professions Council of South Africa rules and regulations. The centre can accommodate a total of 15 individuals at one time. Presently a service provider is being contracted on a needs basis to conduct psychometric assessments. Necsa is exploring the possibility of purchasing its own assessment tools in order to centralise the assessment process internally. Assessments were undertaken on 88 Necsa Group staff members.

Career Ladders

Career ladder models for scientists, engineers and technicians were developed and are in the process of being fully aligned to integrate with other key HR processes such as job profiles, performance management, job evaluation and remuneration, career development, succession management and promotions as follows:

Career Ladder Models Developed

Category	Number
Scientists	74
Engineers	57
Technicians/Technologists	123
Total	254

Performance Management

A revised performance management policy, framework and assessment tool was developed and approved. A workshop to train all staff on the revised system commenced with the HR/OD/ETD practitioners. Roll-out to all management and staff will begin in April 2011.

Sustainability Report (continued)

Employee Health

Primary Health Care

A Primary Health Care Service was provided to Necsa employees that included both Medical Practitioner and Occupational Health Nurse consultations. A total of 2,288 consultations were conducted.

Employee Wellness

A strategic decision to move Employee Wellness to the SHEQ Department (Medical Services) was implemented to enhance synergy and the co-ordination of Employee Wellness with other medical services. A social and psychological service provider was contracted during the reporting period to assist Necsa employees.

HIV/AIDS Programme

Necsa commissioned Unisa to conduct an HIV Prevalence Study in May 2010. Only 715 out of the potential 2,043 staff members (558 from Pelindaba and 21 from Vaalputs) volunteered to take the anonymous test, resulting in a 35% sample uptake and revealing a 3.5% HIV prevalence.

HIV Prevalence is one of three research studies commissioned by Necsa, comprising HIV and AIDS knowledge, attitudes and practices; HIV Prevalence; and a Cost-effective study (actuarial). The three studies will inform the baseline for Necsa in its quest to align with the National Strategic Plan for TB, STI, HIV and AIDS of 2007–2011 for a co-ordinated Wellness Programme and to enable informed decision making on the impact of these on Necsa's business continuity.

Medical Surveillance

At the end of the reporting period, 1,019 chemical, 4 laser, 645 noise and 844 radiation workers were registered as occupationally exposed workers at Necsa, meaning that these workers could be at risk. These registered workers were subjected to regular formal medical surveillance and health care programmes. A total of 582 Necsa Group office workers were identified for screening for occupation related and chronic conditions and 502 were screened before year end.

Necsa Group Medical Aid Scheme

Necsa's employees are obliged, in terms of their conditions of service, to become members of either Discovery Health or Sizwe Medical Scheme, or to become dependents on their spouse's medical schemes. Detailed membership information for the Necsa Group is presented in the table below:

Medical Aid Membership

Description	Necsa Discovery Health	Necsa Sizwe	Necsa Total	NTP Discovery Health	NTP Sizwe	NTP Total	Pelchem Discovery Health	Pelchem Sizwe	Pelchem Total
In-service members									
Principal members	1,120	91	1,211	203	24	227	98	2	100
Spouses	422	44	466	62	7	69	52	2	54
Children	668	102	770	135	26	161	77	2	79
Other dependents over 21	109	0	109	22	0	22	13	0	13
Other dependents under 21	17	0	17	0	1	1	0	1	1
Total lives: In-service members	2,336	237	2,573	422	58	480	240	7	247
In-service members on spouses medical schemes*	-	-	165*	-	-	17*	-	-	8*
Pensioner members									
Principal members	887	3	890	5	1	6	10	1	11
Spouses	405	3	408	4	0	4	6	1	7
Children	24	1	25	0	0	0	8	3	11
Other dependents over 21	36	0	36	0	0	0	1	0	1
Other dependents under 21	8	0	8	0	0	0	0	0	0
Total lives: Pensioner members	1,360	7	1,367	9	1	10	25	5	30
Continuation members									
Principal members	1	0	1	0	0	0	0	0	0
Spouses	1	0	1	0	0	0	0	0	0
Children	0	0	0	0	0	0	0	0	0
Other dependents over 21	0	0	0	0	0	0	0	0	0
Other dependents under 21	0	0	0	0	0	0	0	0	0
Total lives: Continuation members	2	0	2	0	0	0	0	0	0



Description	Necsa Discovery Health	Necsa Sizwe	Necsa Total	NTP Discovery Health	NTP Sizwe	NTP Total	Pelchem Discovery Health	Pelchem Sizwe	Pelchem Total
Pensioners on own medical schemes**									
Principal members	0	0	70	0	0	2	0	0	0
Spouses	0	0	37	0	0	1	0	0	0
Children	0	0	7	0	0	0	0	0	0
Other dependents over 21	0	0	2	0	0	0	0	0	0
Other dependents under 21	0	0	0	0	0	0	0	0	0
Total lives: Pensioners	0	0	116	0	0	3	0	0	0

* In various medical aid schemes

** Pensioners who are on their own medical schemes are entitled to a monthly contribution towards their memberships

Necsa Retirement Fund

Necsa's Group Retirement Fund is a defined contribution provident fund which complies fully with the Pension Funds Act, No. 24 of 1956, as amended. The Fund is managed by a Board of Trustees comprising 50% employer and 50% employee representatives. Old Mutual Corporate is the administrator of the Fund and manages the Fund in conjunction with the Trustees, while Fifth Quadrant Actuaries and Consultants provides investment and actuarial advice.

The Fund follows a life stage model approach as well as a member level investment choice, consisting of three investment portfolios, namely the market risk, stable and money market portfolios, to deal with the different needs of members with respect to their inflation and exit risks. The Fund's investment managers are Allan Gray Limited, Coronation Asset Management, Prescient Investment Management and Sanlam Investment Management.

Given the different investment portfolios, the Market risk portfolio aims to deliver 5% per annum (net of fees) out-performance of headline inflation over any rolling 7-year period and the Stable portfolio aims to deliver 3% per annum (net of fees) out-performance of headline inflation over any rolling 3-year period.

The cumulative returns of the mentioned three investment portfolios for the period 1 April 2010 to 31 March 2011 were as follows:

- Market risk portfolio = 11.90%;
- Stable portfolio = 5.63%; and
- Money market portfolio = 6.81%.

This implies positive returns for members within these portfolios despite difficult financial market circumstances.

Good control over the Fund's expenses and favourable underwriting

conditions by the insurer resulted in contributions to retirement funding increasing to 17.55% of pensionable salary, with Fund administration expenses down to 0.50% and the medical disability premium down to 0.95% of pensionable salary. However, death benefit contributions have remained at 2% of pensionable salary.

The most recent annual financial report of the external auditor Ernst & Young declared the Fund financially sound and confirmed that its operations are in accordance with best accounting practices for South African retirement funds, as prescribed by the Pension Fund's Act.

As at 31 March 2011, the unaudited net assets of the Fund amounted to R641.0 million and membership stood at 1,725 in-service members, and 32 members who have been declared medically disabled.

The Trustees' priorities for the reporting period included the following matters:

- Regular meetings of the Board of Trustees (four), and six each of the Investment and Management Sub-committees;
- Updating of the Investment Policy Statement;
- Maintenance of PF130 Governance policies;
- Communication with members, which was achieved through the annual benefit statements; various financial and audit reports; monthly Fund performance and individual member credit updates; information sessions and posting of all relevant information on Nucleus (the Necsa intranet site);
- Advanced training of Trustee members;
- Continuous assessment of the overall Fund risks and development of action plans;
- Further strengthening of governance through performance assessments of the Chairperson, Principal Officer, the Board of Trustees as a whole, as well as the service providers; and
- The revision and updating of the rules of the Fund which are currently with the Financial Services Board and SARS for approval.



Commercial Report

The commercial subsidiaries of Necsa are a culmination of the taxpayers' investment in the organisation as a generator of technology. The subsidiaries capitalise on research that results in a potentially useful product, upscale this to an industrial level of output, and having probed and tested the market, spin this out to compete on an unsubsidised basis. Necsa's commercial subsidiaries earned close to one billion rand in foreign exchange for South Africa in the review period, created hundreds of jobs and paid back into the central revenue fund via income tax.

NTP Radioisotopes (Pty) Ltd

Background

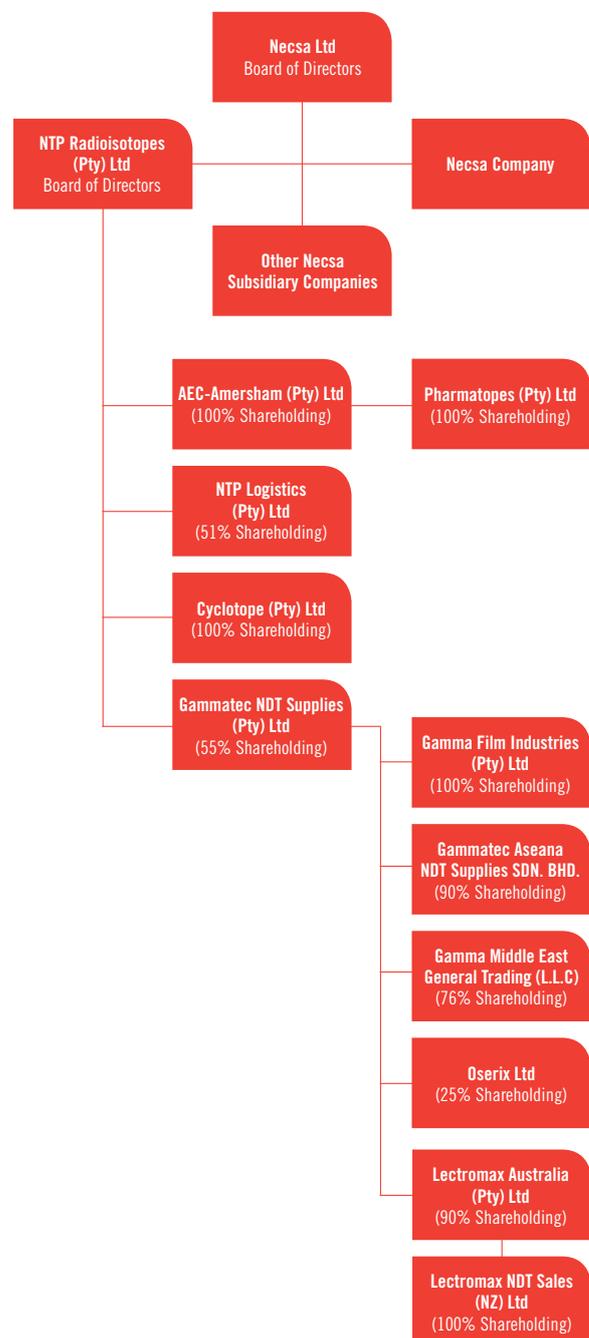
NTP is a wholly owned subsidiary of Necsa and conducts its operations from the Pelindaba nuclear facility near Pretoria, South Africa. The NTP Group consists of subsidiary companies AEC-Amersham (Pty) Ltd (100% owned by NTP), NTP Logistics (Pty) Ltd (51% shareholding) and Gammatec NDT Supplies (Pty) Ltd (55%). Gammatec in turn has wholly and partially owned subsidiaries.

NTP and its subsidiaries manufacture and supply isotope products, non-destructive testing equipment, Kodak film for X-ray and gamma radiography, ultrasonic equipment and accessories, fluorodeoxyglucose (FDG) for Positron Emission Tomography (PET) application and other nuclear and radiopharmaceutical products and related services to the nuclear medicine sector and to distributors in South Africa and in many countries abroad. Subsidiary, NTP Logistics, provides safe transportation of hazardous radioactive materials and chemicals.

The NTP Group is a market leader with patients throughout the world benefiting from nuclear medicine scans and other procedures performed using products supplied by the Group.

NTP Holding Company

Group Structure



Commercial Report (continued)

NTP's product portfolio consists of Radiopharmaceuticals, Irradiation Services, Radiochemicals, Radioactive Sealed Sources, and Radiation Technology Products. NTP has the unique advantage over competitors of having direct control over all manufacturing facilities on one site as well as over its time-critical distribution of products to customers on five continents.

The Company focuses on customer satisfaction and every effort is made to ensure individual requirements are met and that, at all times, close and effective communication is maintained. The Company maintains an excellent safety and environmental protection record equal to the world's foremost organisations. NTP proudly achieved 1.5 million DI free hours in February 2011 placing the Company on the map as one of the best in terms of continuous improvement. The last recorded DI was in 2007 translating into four years of a 100% safety culture.

International Standards Organisation (ISO) and Current Good Manufacturing Practices (CGMP) compliance audits were performed by the SABS and the US FDA. NTP maintains ISO 9001:2008 certification in all its activities, as well as relevant approvals in terms of customer regulations.

NTP, together with Necsa, is involved with various R&D activities. A major breakthrough was achieved with the development of the LEU-based Mo-99 process and associated product validation. The new Drug Master Files for LEU Mo-99 were finalised and submitted to the medical regulators in the US and various other countries. The first commercial batch of LEU-based Mo-99, approved by the FDA for patient use, was sent to the US.

NTP is also represented on an international working group, formed in 2010, for the development of a new, higher density target for LEU Mo-99 production.

The development of the laboratory scale chemistry process for the extraction of Lutetium-177 was completed in the year and the first test sample successfully tested in Europe. Work on the development of a new PET product, F-Choline, also commenced during the year and the first laboratory scale production runs were successfully performed. The necessary cGMP documentation is being drafted.

The global Mo-99 shortage crisis, which began in May 2009, continued well into 2010. Scarcity of the radioactive isotope, due to the extended shut-downs of both the Nuclear Research Universal (NRU) Reactor in Canada and High Flux Reactor (HFR) in the Netherlands, was regarded as the world's worst medical crisis in decades. NTP played a major role

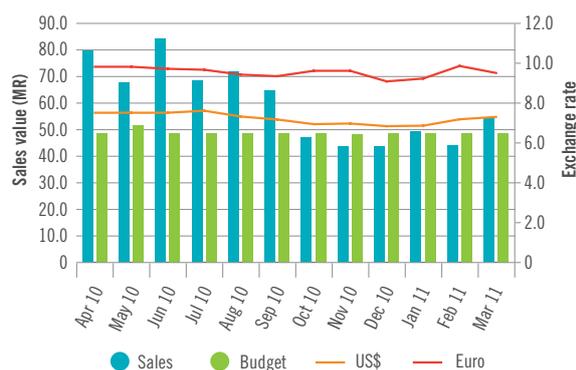
in mitigating this disaster and a leading role in the OECD's High Level Group activities and Mo-99 supply crisis management actions. NTP and the Institute for Radioelements (IRE) in Belgium increased production by 15% to support the nuclear medicine community in many countries, most notably in the US (where half of the world's nuclear medicine scans are performed), Japan and South America.

Mo-99 sales revenues decreased in the latter part of the year due to the return to production of all competitors in the Mo-99 market. The returning suppliers aggressively attempted to regain market share in a market which is estimated to have returned to ~80% of previous levels, due to better utilisation of Technetium-99m (Tc-99m), an erosion of the market to other nuclear modalities and a movement away from nuclear medicine. This situation is predicted to continue into the new financial year. The return of the reactors to operation also had a negative impact on other products and services such as Iodine-131 (I-131) and neutron transmutation doped (NTD) silicon and more markedly on Irradiation Services. Sales of Iridium-192 (Ir-192), the radioactive sealed sources used in non-destructive testing application, are still suffering from the delayed impact of the global economic downturn.

NTP is committed to the nuclear medicine industry and in collaboration with iThemba Labs has established a Joint Working Committee to investigate and negotiate a long-term co-operation agreement between the two organisations with the objectives of jointly fostering and growing the nuclear medicine industry in the Western Cape, and managing the marketing and sales of all radionuclides produced by iThemba through the commercial operations of NTP.

Company sales were R711 million, which is 22% above budget and 8% better than the previous financial year. Group sales of R869 million, some 13% more than budgeted.

NTP Turnover





SAFARI-1

SAFARI-1 achieved its best ever operation of 306.16 days versus the scheduled 302.92 days, which represents an availability of 101.1% at an average reactor power of 19.44 MW during the past financial year. This success can be ascribed to an effective maintenance programme, the fully staffed and trained reactor operations group and to reactor ageing management.

With the use of an ageing management methodology, 18 ageing management projects, 38 development and upgrade projects and 24 maintenance projects were identified for implementation over a five-year period. This will enable reliable availability for operation. To handle this large number of projects, the engineering and technical capacity was expanded and streamlined. Project management, calculation control, configuration management and design control processes were developed and are being implemented. Projects that advanced well were the replacement of Beryllium reflector elements, refurbishment of cooling towers, replacement of the two main electrical supply transformers, and replacement of the strainer in the primary loop as well as the grid plate.

The return of US origin fuel irradiated in the SAFARI-1 Reactor was undertaken with the US DOE under the US Foreign Research Reactor Spent Nuclear Fuel Acceptance Programme. The licensing documentation and preparatory work progressed well, with the completion date for the repatriation project planned for later in 2011.

The reactor maintained its quality management system ISO 9001:2008 and environmental management system ISO 14001 certification.

Dedicated Isotope Production Reactor

The 46-year-old SAFARI-1 Research Reactor is ageing and a new reactor is required to ensure NTP's production capabilities for the next 50 years. Construction of a Dedicated Isotope Production Reactor (DIPR) is being considered and a feasibility study is currently being conducted. This includes siting, environmental impact assessment, compiling user requirement specifications as well as screening and the pre-selection of viable turnkey suppliers, all of which are in various stages of investigation. Completion of the feasibility study phase is expected towards the end of 2012.

Eight potential sites were identified at Pelindaba for the new reactor. One preferred site was isolated after a comprehensive screening process and is currently undergoing detailed seismic and geological characterisation. The pre-selection of potential suppliers of the

DIPR also commenced and seven potential suppliers were invited to participate.

Safety and Quality Statistics

NTP's outstanding safety and quality performance is reflected in the table below:

	2009/10 Actual	2010/11 Actual	Target 2010/11
DI free hours worked	1,074,176	1,544,550	1,500,000
Injuries on Duty (IODs) – reportable	9	6	≤ 5/a
DIs	0	0	0
Iodine (Bq)	1.22E+11	9.72E+10	<7E+11
Noble gas (Bq)	1.75E+15	2.78E+15	<9E+16

Staff

NTP values its staff and encourages their development, while respecting cultural diversity in the workplace.

During the year, NTP created 24 new jobs increasing its staff complement to 254 (2009/10: 230). This total consists of 245 permanent staff members and 9 contractors. The Balanced Score Card rollout plan, which commenced in 2010, has progressed efficiently and all NTP staff performance evaluations will be done accordingly.

NTP Subsidiaries

AEC Amersham (Pty) Ltd

Wholly owned by NTP, AEC-Amersham (Pty) Ltd is the exclusive distributor in sub-Saharan Africa and the Indian Ocean Islands of NTP's radiopharmaceutical products as well as a range of health care, life sciences and quality and safety assurance markets. Principal suppliers are respected international and national manufacturers who offer high quality products.

In turn AEC-Amersham has a 100% shareholding in Pharmatopes (Pty) Ltd. The core strengths of the Company are an extensive range of specialised products and services, supported by a dedicated and knowledgeable sales force whose skills are continuously developed.

During the year the Company relocated to new premises at Kyalami Business Park. In addition to increased office space the large warehousing facilities will enhance delivery and supply to the local market.

Commercial Report (continued)

Sales were R79 million, which is 5% above budget and 13% better than 2009/10.

Pharmatopes (Pty) Ltd

The core business of Pharmatopes (Pty) Ltd is the supply of nuclear and radiopharmaceutical products and related services to the nuclear medicine sector. A strategic decision was taken to integrate the operation of Pharmatopes into the NTP Radiopharmaceutical production activities at Pelindaba and the sales and marketing activities into AEC Amersham. Trading activities ceased on 30 September 2010.

Sales were R4.6 million, 67% below budget.

Cyclotope (Pty) Ltd

Cyclotope (Pty) Ltd, 100% owned by NTP Radioisotopes (Pty) Ltd, manufactures [¹⁸F] FDG for positron emission tomography applications. A strategic decision was taken to integrate the operation of Cyclotope into the NTP Radiopharmaceutical production activities at Pelindaba. Trading activities ceased on 30 June 2010.

Sales were R1.7 million, which is 78% below budget.

Gammatec NDT Supplies (Pty) Ltd

NTP has a 55% shareholding in Gammatec NDT Supplies (Pty) Ltd. In addition to serving the local market the Company exports its range of non-destructive testing (NDT) equipment, accessories and consumables to over 70 countries worldwide.

Gammatec Group sales were under pressure. Market surveys indicate this is largely due to the impact of the credit crunch affecting the NDT industry. The Company has, however, had many positive results including the successful promotion of Flaw Detectors, as well as Phased Array Systems. The recently established subsidiary company, Oserix had an excellent start with significant sales throughout Europe and surrounding territories. The launch of the NDT projector, Oserix Dual 120, is rapidly gaining momentum and the introduction of the new Tungsten shielded projectors will open up new markets. Restructuring in Australia, by significantly boosting the sales team along with the remodelling of the manufacturing division, will impact on short-term profitability and cash flow, but will ensure growth in the medium term.

A strategic decision was taken to incorporate the business of Gamma Film Industries into Gammatec NDT Supplies. The Company ceased to

trade as a stand-alone entity as at 1 October 2010. The business has been seamlessly incorporated into Gammatec NDT Supplies.

Gammatec NDT Supplies head office is in Vereeniging, South Africa, with offices in Dubai (UAE), Kuala Lumpur (Malaysia), Melbourne (Australia) and Brussels (Belgium).

Group Sales were R123 million, which is 17% below budget.

NTP Logistics (Pty) Ltd

NTP Logistics (Pty) Ltd manages the domestic and international logistics of hazardous goods specialising in, but not limited to, radioactive materials and chemicals. NTP is the holding company with a 51% share of this rapidly growing logistics company.

Excellent progress was made with preparations for the repatriation of SAFARI-1 spent fuel with the completion of transport and risk plans and the identification of a suitable export harbour following negotiations with National Port Terminals and the National Port Authority. The Company has also applied for a blanket nuclear marine vessel license from the NNR, which will be a first in South Africa and a test-case for the regulator.

NTP Logistics holds numerous permits and licenses issued by the NNR and the government Departments of Energy, Health and Transport to operate in this field. It is an active member of the World Nuclear Transport Institute as well as the World Cargo Alliance International Network of freight forwarders. NTP Logistics obtained ISO 9001:2008 certification from DEKRA, an internationally acclaimed accreditation authority.

Sales were R11.5 million, which is 16% above budget and 9% better than the previous financial year.

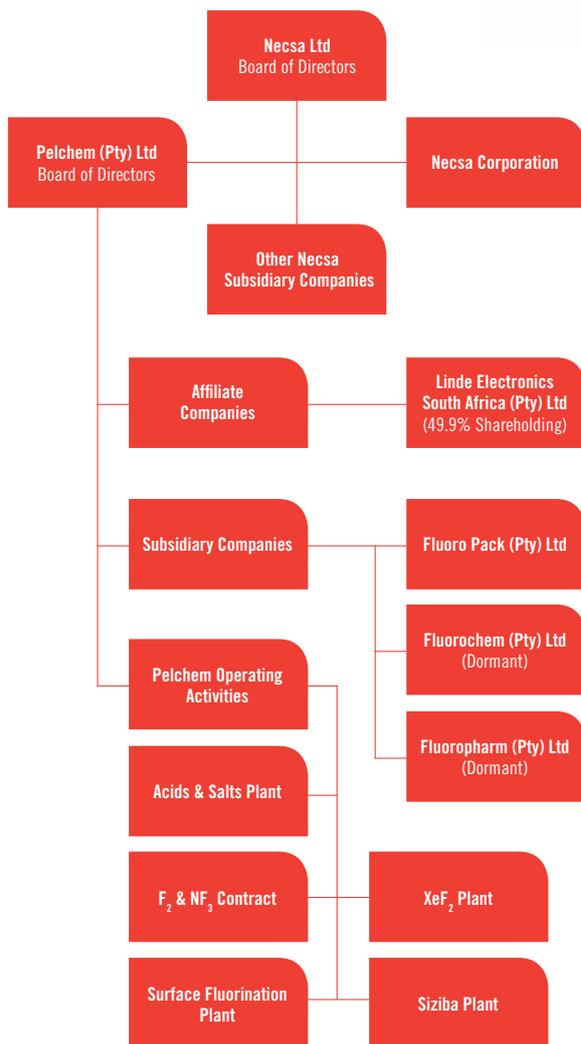
Pelchem (Pty) Ltd

Group Overview

Pelchem is a 100% subsidiary company of Necsa Ltd with a business focus on the fluorochemical industry. It plays a strategic role in supporting Necsa and government plans for a nuclear fuel programme in the country.



Pelchem Group structure



Products and Applications

South Africa holds the second largest fluor spar reserves in the world outside China and is an important international supplier of fluor spar to hydrogen fluoride producers. The chemical sector development strategy of the dti and the IPAP2 include a priority programme, the Fluorochemical Expansion Initiative (FEI), to increase beneficiation of South African mined fluor spar to counter the trade deficit in chemical products. Pelchem is the only company in South Africa that beneficiates a small percentage of locally mined fluor spar into higher value

fluorochemical products and therefore plays a leading role in the FEI.

Pelchem manufactures and markets anhydrous hydrogen fluoride (AHF), hydrofluoric acid, fluoride containing salts, fluorine gas, and speciality fluoride containing gases and fluoro-organic monomers to local industry and to selected international customers. These products are used in the petroleum, pharmaceutical, glass, electricity, metallurgical, mining, polymer, agrochemical, electronics, construction, aluminium and detergent industries.

Consumers benefit daily from products which are manufactured, processed or enhanced using fluoride containing chemicals. These include high octane fuel; anaesthetics; metered dose inhalers; polished crystal glasses; frosted glass; electrical insulators; foam insulation and packaging materials; special alloys in aircraft and turbines; telephones; cell phones; diamonds; domestic and industrial refrigeration; non-stick cookware; plastic components in automotive applications; electrical cable insulation; beverage cans; pesticides and herbicides in agriculture; microchips for domestic appliances and computers; memory chips in computers, iPods, flash memory sticks; liquid crystal displays (LCD) on electronic components and LCD televisions; cement; alloy wheels; gaming devices; automotive safety devices (airbags); aluminium foils; designer stainless steel kitchen ware; stainless steel automotive components; soaps and washing powders; fluoride toothpaste, fluoride tablets and fluoride dental treatment.

Operating Activities

Where 2009/10 was marked by the slow recovery from the recession, 2010/11 was marked by the strong South African Rand versus the currencies of its major trading partners. This impacted negatively on the competitiveness of Pelchem's products and contributed to the need to reduce the staff complement.

The clampdown of the Chinese government on the exploration and export of products from their fluorochemical industry had two major impacts on the fluorochemical market in the rest of the world. Firstly the prices of the products stabilised, and in some cases, notably calcium fluoride (CaF₂) and AHF, the prices increased. Secondly it created a concern in the market relating to the security of supply from the Chinese fluorochemical industry. This resulted in a substantial restructuring and repositioning of the market in an attempt to reduce the supply risks.

Pelchem benefited from these market changes in a number of ways. The volume of 70%HF sold into Brazil increased substantially over previous years. Pelchem was also successful in being awarded the tender to

Commercial Report (continued)

supply the Shell refineries in Australia. Pelchem is now the sole supplier of AHF to the Australian refineries – a position achieved through competitive pricing and superior service.

Pelchem also remains the sole supplier of AHF and 70%HF to the southern African market.

HF production in 2010/11 was at a record high – 4,659 tons were produced, 3% above the nameplate capacity of the plant.

Pelchem continues with its global dominance in the supply of xenon difluoride (XeF_2) although there was not a significant growth in sales volume. XeF_2 is used primarily in the Micro Electronic Mechanical Systems (MEMS) industry which in one of the fastest growing sectors, both in volumes and applications, in the electronic market. The largest portion of the XeF_2 sales went to Qualcomm Panel Manufactures (Taiwan), which is expected to continue increasing its demand as the industrialisation of the application progresses.

Air Products announced, in July 2009, that it would also be entering the market as a supplier of XeF_2 . This is seen as a positive stimulus for the industry – reducing the supply risk to customers. To date Pelchem has not lost any XeF_2 sales to Air Products.

During the third quarter of the year, the last of Pelchem's product lines saw some recovery with orders from Dyneon for DY02P. Two shipments were dispatched during the latter part of the year and the forecast for volumes is promising.

The sales volumes of nitrogen trifluoride (NF_3) from Linde Electronics South Africa (LESA), the joint venture partnership with the Linde Group, are progressing well, with improved operational efficiencies, driven by the demand for NF_3 in the photovoltaic (PV) solar industry. However, price pressure due to an oversupply situation, a more competitive technology, and economies of scale, showed signs of eroding the margins. This placed severe financial strain on LESA. Towards the end of the year the Japanese earthquake, tsunami and rolling black-outs impacted negatively on the supply of NF_3 from Japan and caused a shortage in the global market. It is uncertain how market pricing will react to this shortage.

Pelchem needs a large volume fluorine gas (F_2) user, known technically as a 'sink', in order to continue operating its F_2 plant so that it can comply with its shareholder's requirement of maintaining the F_2 capability. At this stage the only F_2 sink available to Pelchem is the NF_3 plant operated under the joint venture partnership described above.

The Linde Group informed Pelchem in November 2009 that it wished to disinvest in LESA and offered its NF_3 plant to Pelchem. In order to retain the NF_3 plant as an F_2 sink, Pelchem conducted negotiations with the Linde Group on the purchase of the NF_3 plant, and negotiated an agreement whereby the Linde Group would buy the NF_3 from Pelchem and resell it to the market. This transaction is still awaiting Ministerial approval.

Significant progress was made on FEI activities, with focus on the R&D work supported by the grant received from the DST. The 2011/12 year is the last year of this grant. The DST has arranged for an independent review of the effectiveness of the grant and the outcomes achieved with the grant. Pelchem is hopeful that a positive outcome of this review will result in an extension of the grant by the DST. Work on the design and construction of the multipurpose fluorination pilot plant, also funded by a grant from the DST, is continuing. This facility will ultimately assist in the industrialisation and market penetration of opportunities developed via the funded R&D work.

Pelchem's surface fluorination technology was explored by Fluoro Pack (Pty) Ltd to create barrier layers on polymer surfaces through fluorination of the surface by reaction with fluorine gas. This chemical modification gives the polymer unique characteristics, such as improved permeation resistance and chemical inertness. Fluoro Pack functions as a toll fluorinator, fluorinating a wide variety of products for domestic and international markets, being mainly containers, fuel tanks, and fuel pipes. Fluoro Pack maintains two production facilities. The first, situated at Pelindaba, services a variety of products, whilst the second, situated on the premises of Inergy Automotive Systems in Brits, is used exclusively for blow moulded fuel tanks. On 1 October 2010 the business of Fluoro Pack was consolidated into Pelchem, and it is now operated as Surface Fluorination, a department within Pelchem. During the year, a record 5.6 million units were fluorinated. Part of this success can be attributed to the recovery of the South African automotive industry.

Quality

Pelchem had a successful surveillance audit by the SABS in November 2010, and retained its ISO 9001:2008 certification status.

Training

Statutory training was provided according to regulatory requirements. Skills training focused on informal workplace training in work procedures. Pelchem supported Necs learnerships by providing



exposure and working experience to artisans and technicians in its operating plants and compulsory vacation work to university undergraduate engineering students. Pelchem's training budget approximately equalled its contribution to the skills levy, emphasising its commitment to training and development.

Customer Satisfaction

In the last quarter of 2010, Pelchem undertook a Customer Satisfaction Survey with its top 23 customers (five international and eighteen domestic) who account for >97% of its sales. An average score of 81% was recorded (March 2010: 84%). Attention is being directed, from a strategic management level, at addressing the improvements required to turn this trend around.

Personnel

Due to the impact of the 2008/09 recession, some of Pelchem's markets disappeared and others became more demanding and competitive. This resulted in Pelchem having to reduce its staff complement. Of the 22 positions initially identified as being redundant, thirteen staff members were redeployed or resigned, five reached an agreement on separation, and four were non-voluntarily retrenched.

Performance

Overall, Pelchem achieved sales of R162.0 million (2010: R152.7 million) which represents a 6.0% increase over the previous year. The target of delivering a positive net profit was not realised and remains a major target for the year ahead.

New Growth Initiatives

During a strategic session of the Board in June 2010, a decision was taken to reduce the market exposure and risk of Pelchem by exploring new business opportunities in the health sector. This decision builds on the fact that a large number of modern drugs are fluorine-based or contain fluorine molecules. The decision further builds on the business model of Pelchem's sister company, NTP in the health sector.

A detailed market analysis was undertaken and opportunities which are being pursued include active pharmaceutical ingredients (APIs), and fluorine-based anaesthetics.

A strategic alliance was formed with the Swiss company, Lonza, to manufacture and market APIs, firstly for the anti-retroviral (ARV)

market, and later for other applications. This strategic alliance will be marketed under the name 'Ketlaphela'. By the end of the reporting period, the business model for Ketlaphela was being finalised, and substantial lobbying with decision makers in the South African ARV market had been undertaken.

Another growth opportunity which is being explored is the co-operation with a British company to produce rare-earth fluorides on a tolling basis. The main application of these rare-earths is in the production of super magnets. The business model for this opportunity has yet to be finalised.

Pelchem has reached a stage in its lifecycle where it is geared for significant growth through the diversification of its product portfolio; smart partnerships; mergers; joint ventures; and spin out companies. The growth areas of particular interest and promise are in the pharmaceutical intermediates and speciality chemicals markets.

ARECSA

ARECSA Human Capital (Pty) Ltd is a joint venture (JV) company between AREVA from France and Necsa, with Necsa representing the JV the interests of two other nuclear industry stakeholders, namely Eskom and the NNR. ARECSA is aligned with and also supports the SA government's Accelerated Shared Growth Initiative as well as the Joint Initiative for Priority Skills Acquisition and is committed to skills development especially of disadvantaged South Africans. Through its association and partnership with AREVA and other Stakeholders such as the National Institute for Nuclear Science and Technology (INSTN) which is part of the CEA; Institut de Soudure (Villepinte); Essec Paris Business School; the South African Institute of Welding; and the NSD Centre, ARECSA is able to provide training and the transfer of skills from a wealth of expertise of its stakeholders to benefit South Africans. The Company utilises obligor funds for training and is a vehicle through which the obligors can discharge their counter trade obligations from the National Industrial Participation Programme of **the dti** and other obligations from the Competitive Supplier Development Programme of the Department of Public Enterprises.

Achievements

In the 2010/11 financial year no new funding was secured for training and funding that was expected from one of the obligors based in France did not materialise.

Commercial Report (continued)

Summary of Performance in 2010/11 Financial Year

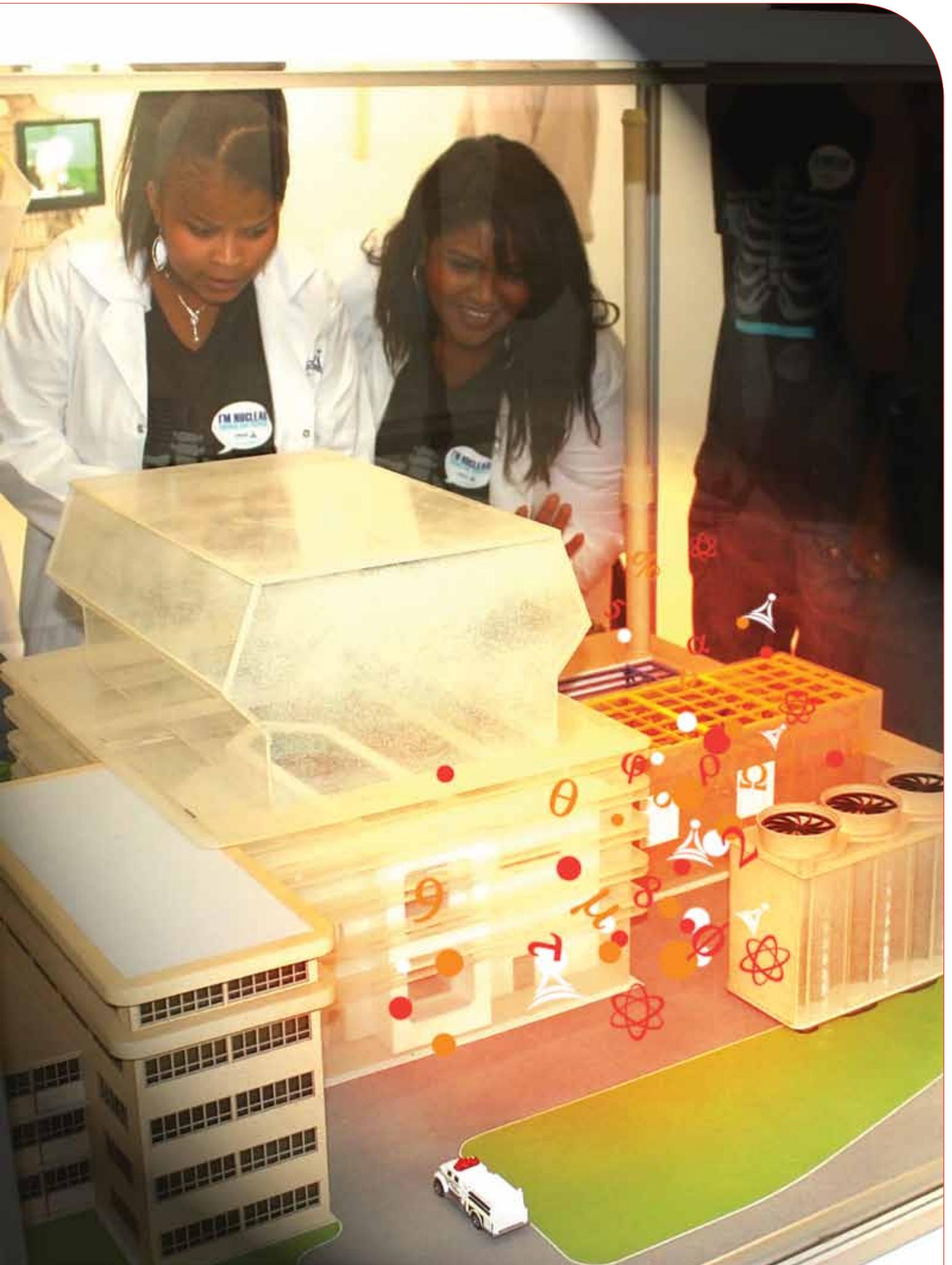
Statement of objective	Performance indicator	2010/11	Actual	Performance (relative to target)
Development and implementation of an effective strategy to attract obligors	Number of obligors	2	1	Not achieved
	Funding raised for training	R2 million	R0	Not achieved
Training execution	% Training needs met (by Training programme)	100%	100%	Achieved
	Number of PDIs trained	70%	44.4% (67.8% for Patria Programme)	In progress
	Average satisfaction level on training conducted	70%	74%–80%	Exceeded

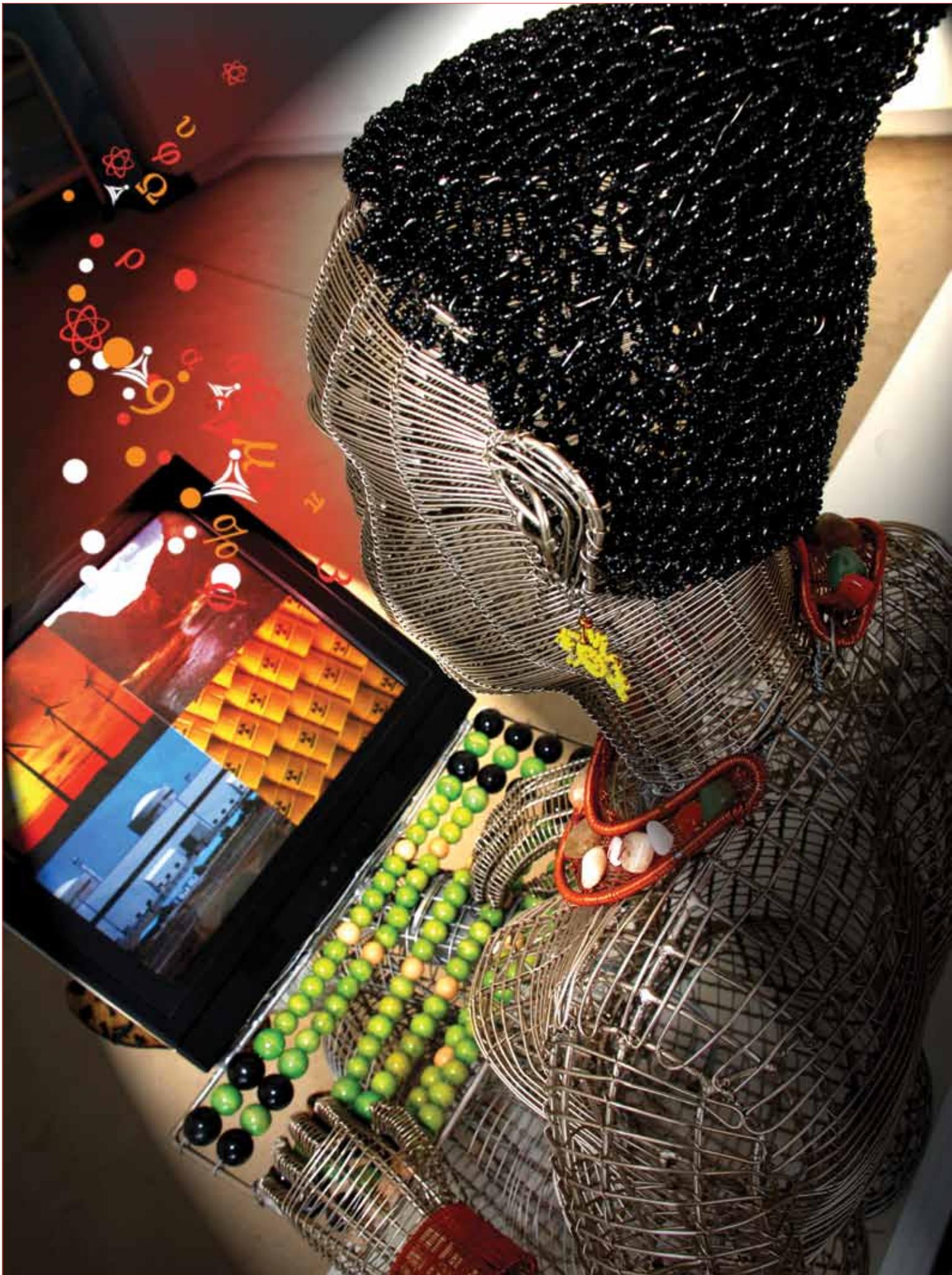
¹ The actual figure for the Patria training programme, under which all training was completed, was 67.8% by the end of reporting period. The 70% target is expected to be reached by the time the programme is completed.

Nine people received training through ARECSA, funded by the R2.2 million allocation secured from Patria in the previous financial year. This included training which was given by *Institut National des Sciences et Techniques Nucleaires* (INSTN) in France. Amongst the people trained, 44.4% were Previously Disadvantaged Individuals (PDIs), against a target of 70%. However the %PDIs trained on the Patria programme under which the training was done was 67.8%, and it is expected that the 70% target will be reached once the Patria training programme is complete.

Six further people benefited from further nuclear industry training that was offered in France under the Joint Initiative for Priority Skills Acquisition Junior Management Development Programme. This six-week programme was administered by the National Empowerment Fund and the Chamber of Commerce and Industry of Paris in France.

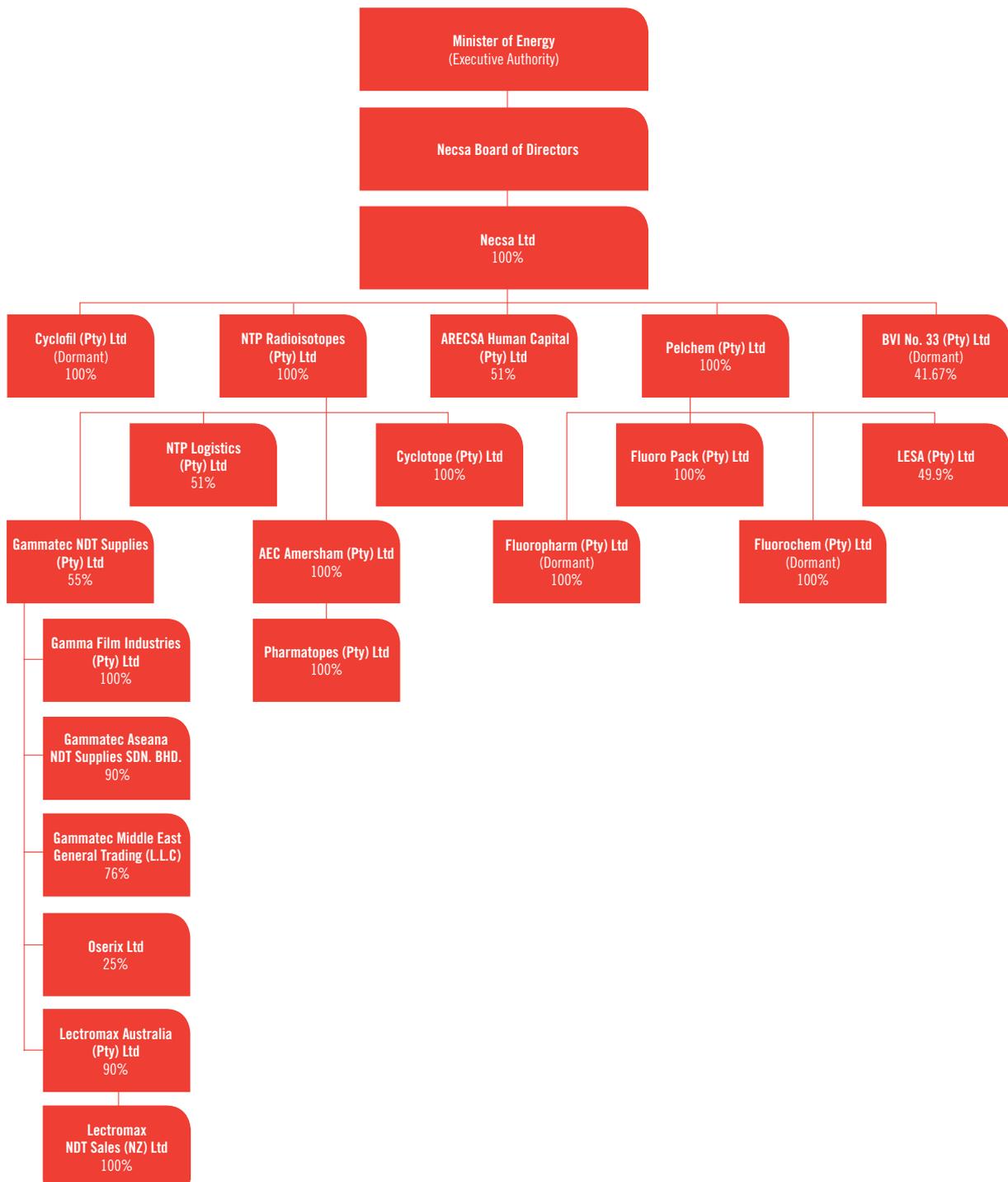
A nuclear skills position paper was developed by the Nuclear Industry Association (NIASA) for the nuclear industry, and a Business Case is being developed by the NIASA for skills development for the nuclear industry.





Corporate Governance

Necsa Group Structure



Corporate Governance (continued)

Necsa as an Organisation

The South African Nuclear Energy Corporation Limited, known by its trade name Necsa, is a wholly owned state entity established in terms of the Nuclear Energy Act, No. 46 of 1999 and the Companies Act, No. 61 of 1973.

The Nuclear Energy Act outlines Necsa's main and ancillary objects, including the Corporation's financial accountability.

Necsa is governed by a Board of Directors appointed by the Minister of Energy, with the Chief Executive Officer being the only Executive Director.

In addition to its main and ancillary functions, Necsa is responsible for the implementation of certain mandated activities which include the implementation and application of the Safeguards Agreement and any additional protocols entered into by the Republic of South Africa and the IAEA in support of the Nuclear Non-Proliferation Treaty, acceded to by the Republic.

The Nuclear Energy Act further regulates the acquisition and possession of nuclear fuel, certain nuclear and related material and related equipment as well as the importation and exportation of, and other acts and activities relating to, fuel material and equipment, in order to comply with the international obligations of the Republic. The Nuclear Energy Act also prescribes measures regarding the management of radioactive waste and the storage of irradiated nuclear fuel.

Code of Practices and Conduct

Corporate Governance is formally concerned with the organisational arrangements that have been put in place to provide an appropriate set of checks and balances within which the stewards of the organisation operate. The objective is to ensure that those to whom the stakeholders have entrusted the direction and success of the organisation act in the best interests of these stakeholders. It encourages leadership with integrity, responsibility and transparency.

The Necsa Group endorses the principles of the South African Code of Corporate Practices and Conduct as recommended in the King III Report. As such, the Group is committed to principles and practices that provide stakeholders with the assurance that the organisation is managed soundly and ethically.

The Board of Directors believes that the organisation has, as appropriate, applied and complied with the principles incorporated in the Code of Corporate Practices and Conduct, as set out in the King III Report. The Board regularly reviews the Group's governance structures and processes. Issues of governance will continue to receive the consideration and attention of the Board and its Committees during the year ahead and, where appropriate, will be reviewed and adapted to accommodate internal corporate developments and to reflect best practice.

Board of Directors

The Board is the accounting authority as defined in terms of the Public Finance Management Act, No. 1 of 1999. The Board is appointed for a renewable period of three years and undergoes a Necsa-specific induction process within six months of appointment.



Board of Directors



Dr Manne Dipico
Deputy Chairperson,
De Beers Consolidated Mines
(Non-executive Director)



Dr Rob Adam
Chief Executive Officer,
Necsa
(Executive Director)



Dr Ntuthuko Bhengu
Chief Operations Officer,
Clinix Health Group
(Non-executive Director)



Adv. Nazreen Shaik-Peremanov
Senior Lecturer:
Department of Public
International Law, Unisa
(Non-executive Director)



Prof. Thokozani Majoz
Professor: Department of
Chemical Engineering,
University of Pretoria
(Non-executive Director)



Dr Velaphi Msimang
Chief Director: Hydrogen
and Energy Sub-programme,
Department of Science and
Technology
(Non-executive Director)



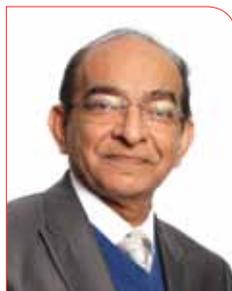
Ms Noluphumzo Noxaka
Director, Alatha Consulting
(Non-executive Director)



Mr Lampona Aphane
Chief Director: Electricity,
Department of Energy
(Non-executive Director)



Mr Phumzile Tshelane
Acting General Manager:
Nuclear Build, Eskom
(Non-executive Director)



Mr Abdul Minty
Ambassador, Department
of International Relations
and Communications
(Non-executive Director)



Mr Leslie Gumbi
Chief Director: United Nations
Political, Department of
International Relations and
Cooperation
(Alternate Director:
Mr Abdul Minty)



Mr Jeetesh Keshaw
Director: Nuclear Policy
and Technology,
Department of Energy
(Alternate Director:
Mr Lampona Aphane)

Corporate Governance (continued)

Details of Board Members

Executive Directors						
Name	Race	Gender	Date of appointment	Term	Expiry of term	Qualifications
Dr Rob Adam CEO, Necsa	White	Male	1 March 2006	2	31 October 2012	MSc (Theoretical Physics) – Unisa; and PhD (Nuclear Physics) – Unisa.

Non-executive Directors						
Name	Race	Gender	Date of appointment	Term	Expiry of term	Qualifications
Dr Manne Dipico Deputy Chairperson, De Beers Consolidated Mines	Black	Male	1 December 2006	2	31 October 2012	PhD (Hon) Law – Monash University.
Dr Ntuthuko Bhengu Chief Operations Officer, Clinix Health Group	Black	Male	1 November 2009	1	31 October 2012	MB, ChB – Natal University Medical School.
Adv. Nazreen Shaik-Peremanov Senior Lecturer: Department of Public International Law, Unisa	Indian	Female	1 November 2009	1	31 October 2012	LLM (Constitutional and Labour Law) – University of Natal; and LLM (International and Human Rights Law) – Notre Dame USA.
Prof. Thokozani Majazi Professor: Department of Chemical Engineering, University of Pretoria	Black	Male	1 November 2009	1	31 October 2012	PhD (Chemical Engineering) – Manchester University, UK; MScEng – University of Natal; and BScEng – University of Natal.
Dr Velaphi Msimang Chief Director: Hydrogen and Energy Sub-programme, Department of Science and Technology	Black	Male	1 April 2010	1	31 October 2012	PhD (Chemical Engineering) – University of Cape Town.
Ms Noluphumzo Noxaka Director, Alatha Consulting	Black	Female	1 November 2009	1	31 October 2012	CA (SA); and MBA – UCT Graduate School of Business.
Mr Lampona Aphane Chief Director: Electricity, Department of Energy	Black	Male	1 November 2009	1	31 October 2012	Pr Engineering, BSc (Electrical Engineering) – University of Natal.
Mr Phumzile Tshelane Acting General Manager: Nuclear Build, Eskom	Black	Male	29 March 2006	2	31 October 2012	BSc Hons (Nuclear Physics) – University of the Witwatersrand; and BSc (Maths and Physics) – University of the Witwatersrand.
Mr Abdul Minty Ambassador, Department of International Relations and Communications	Indian	Male	24 January 2000	4	31 October 2012	MSc (Economics) – University of London; and BSc (Economics) – University of London.
Mr Leslie Gumbi Chief Director: United Nations Political, Department of International Relations and Cooperation	Black	Male	11 October 2009	3	31 October 2012	MA (Political Science) – Warsaw University, Poland.
Mr Jeetesh Keshaw Director: Nuclear Policy and Technology, Department of Energy	Indian	Male	11 October 2009	3	31 October 2012	MSc in Nuclear Engineering – North-West University; MSc in Nuclear Physics – University of the Witwatersrand.



Board Charter

The Nuclear Energy Act serves as the Necsa Board charter. The Act does this, *inter alia*, through outlining the functions and mandate of the Corporation, dealing with the appointment of the Board, setting out the powers of the Board, and the Ministers' responsibilities concerning South Africa's international obligations with regard to nuclear non-proliferation as well source material, special nuclear material, and radioactive waste.

The Board is responsible for ensuring the establishment of various policies to enhance and provide assurance in terms of transparency, inclusiveness, reliability, accuracy, relevance, completeness, clarity and timeliness to ensure sustainability.

Remuneration of Board Members

The remuneration of Non-executive Directors is determined and reviewed annually by the Minister of Energy in consultation with the National Treasury.

Director's emoluments for the period under review are recorded on page 157 of this report.

Meetings of the Board

The Nuclear Energy Act requires that the Board should meet at least four times per annum to discuss and review the strategy and business plan. Special Board meetings are convened when necessary to deliberate on issues that require Board resolutions between scheduled meetings. Members of management are periodically invited to make presentations on issues of particular interest to the Board.

The Board met four times during the review period, with attendance at meetings as follows:

Name of Director	Meeting dates			
	9 June 2010	30 July 2010	30 November 2010	28 February 2011
Dr Rob Adam (CEO and Executive Director)	Present	Present	Present	Present
Dr Manne Dipico (Chairperson)	Present	Present	Present	Present
Adv. Nazreen Shaik-Peremanov (Deputy Chairperson)	Present	Present	Present	Present
Mr Phumzile Tshelane	Present	Apology	Present	Present
Mr Abdul Minty	Apology	Apology	Apology	Present
Prof. Thokozani Majozi	Apology	Present	Apology	Present
Dr Ntuthuko Bhengu	Present	Present	Present	Present
Mr Lampona Aphane	Present	Apology	Apology	Apology
Ms Noluphumzo Noxaka	Present	Present	Present	Present
Dr Velaphi Msimang	-	-	-	Present
Mr Jeetesh Keshaw (Alternate Director: Mr Lampona Aphane)	-	-	Present	Present

Corporate Governance (continued)

Legal Services

Necsa has a dedicated office providing legal support to the Group. This helps to minimise the organisation's legal and compliance risks and assists various Necsa business divisions and Necsa subsidiary companies in pursuit of their respective strategic objectives. Specific functions of Necsa Legal Services include commercial legal services (negotiating, drafting, vetting of the Group's commercial contracts, and providing quality legal advice), and management of civil/litigation matters, which include advising the organisation on appropriate litigation strategy. The office of the legal services also has oversight over the organisation's statutory and/or regulatory compliance.

Company Secretary and Professional Advice

The Company Secretary is Mr Aukney Clifford Mabunda, BA, LLB, LLM (Wits), P. Grad. Dip Business Management & Administration (De Montfort University, UK). Mr Mabunda is an Attorney of the High Court of South Africa. His business and postal addresses are as follows:

Church Street West Extension
Pelindaba
Brits Magisterial District
2025

PO Box 582
Pretoria
0001

All Directors have access to the advice and services of the Company Secretary, whose appointment is in accordance with the Companies Act, and who is responsible to the Board for ensuring the proper administration of Board proceedings. The Company Secretary also provides guidance to the Board on matters of good governance, changes

to legislation and the Board's responsibilities within the prevailing regulatory and statutory environment, and the manner in which such responsibilities should be discharged. The Board is entitled to seek independent professional advice at the Group's expense concerning the affairs of the organisation and have access to any information they may require in discharging its duties as the Board.

The Board is satisfied that the Company Secretary has discharged his responsibilities as expected of him in terms of the Companies Act and King III.

Committees of the Board

In terms of Section 19 of the Nuclear Energy Act, the Board is advised and assisted by advisory committees, whose mandate is to assist the Board in discharging its responsibilities. These committees play an important role in enhancing high standards of governance and improving effectiveness within the Necsa Group.

Audit and Risk Committee

The Audit and Risk Committee comprises four Non-executive Directors. A Non-executive Director who is not the Chairman of the Board chairs the Committee.

The Audit and Risk Committee assists the Board in overseeing:

- The quality and integrity of the Group's financial statements and the disclosure thereof;
- The scope and effectiveness of the external audit function; and
- The effectiveness of the Company's internal controls and internal audit function.

The Committee held five meetings during the year with membership and meeting attendance being as follows:

Name of Director	Meeting dates				
	28 May 2010	23 July 2010	19 November 2010	16 February 2010	28 February 2011
Ms Noluphumzo Noxaka (Chairperson)	Present	Present	Present	Present	Present
Dr Ntuthuko Bhengu	Present	Apology	Apology	Present	Present
Adv. Nazreen Shaik-Peremanov	Present	Present	Present	Present	Present
Mr Phumzile Tshelane	Present	Present	Present	Present	Present

The Committee has adopted formal terms of reference and is satisfied that it has complied with its responsibilities as set out in the terms of reference.



HR and Remuneration Committee

This Committee has adopted formal terms of reference and is responsible for determining HR strategies and policies, and recommending these for approval to the Board. These include policies on staff and Board member remuneration, HR development, as well as conditions of service.

The Committee held four meetings during the year with membership and meeting attendance being as follows:

Name of Director	Meeting dates			
	9 June 2010	30 July 2010	30 November 2010	28 February 2011
Mr Lampona Aphane (Chairperson)	Present	Apology	Present	Apology
Prof. Thokozani Majazi	Present	Present	Present	Present
Ms Noluphumzo Noxaka	Present	Present	Present	Present
Mr Jeetesh Keshaw (Alternate Director: Mr Lampona Aphane)	-	-	-	Present

SHEQ and Technical Committee

The objective of this Committee is to provide assurance to Necsa's Board and, in turn, its shareholders and stakeholder, that Necsa maintains the highest levels of compliance with applied international and national legislation and standards and best management practice in terms of SHEQ, as well as related nuclear issues and regulatory framework matters in terms of the organisation and its projects.

The Committee convened four times during the review period with membership and meeting attendance being as follows:

Name of Director	Meeting dates			
	26 May 2010	21 July 2010	17 November 2010	11 February 2011
Mr Phumzile Tshelane (Chairperson)	Present	Present	Present	Present
Prof. Thokozani Majazi	Present	Apology	Apology	Present
Adv. Nazreen Shaik-Peremanov	Present	Present	Present	Present
Prof. Gideon Greyvenstein	Apology	Apology	Present	Present

The Committee has adopted formal terms of reference and has the authority to investigate, at its discretion, any issues relating to its mandate. During the review period, the Committee monitored the following:

- The implementation and management of SHEQ, security and regulatory framework and related nuclear issues;
- Compliance with International Management Standards and applicable National legislation;
- The implementation of the Safety Culture Enhancement programme;
- The promotion of continuous improvement; and
- Management's view on identified and potential risks relating to SHEQ, security and the regulatory framework and related nuclear issues as applicable to the organisation.

The Committee is satisfied that it has complied with its responsibilities as set out in the terms of reference. It is also satisfied that Necsa is a responsible organisation which executes its SHEQ responsibilities at a high level and has adequate, effective management systems and processes in place to protect its workers, the public and the environment.

Investment and Finance Committee

The objective of this Committee is to provide guidance and assistance with the administrative procedures required for the completion of investment projects.

The Committee convened four times during the review period with membership and meeting attendance being as follows:

Name of Director	Meeting dates			
	26 May 2010	21 July 2010	17 November 2010	11 February 2011
Dr Ntuthuko Bhengu (Chairperson)	Present	Present	Present	Present
Mr Phumzile Tshelane	Present	Present	Present	Present
Ms Noluphumzo Noxaka	Present	Present	Present	Present
Mr Lampona Aphane	Present	Apology	Present	Apology

Corporate Governance (continued)

Executive Management Committee

In terms of Sections 22 & 23 of the Nuclear Energy Act, the CEO has the power and authority, among other things, to implement approved business plans, annual budgets and all other issues and matters relating to the achievement of Necsa's goals and prepare, review and recommend to the Board the annual budgets and any amendments thereto.

The CEO, in carrying out the powers set out above, is assisted by an Executive Management Committee (EMC). The CEO is the Chairperson of the EMC, which consists of nine members. The Committee's main functions include alignment of Necsa's business with the Group mission, vision, strategies, targets and policies and consideration of material business, strategic, financial and functional issues.

The members of the EMC for the financial year were:

Name	Capacity	Appointed to the Committee
Dr Rob Adam	CEO	March 2006 to date
Dr Van Zyl de Villiers	Group Executive: Strategy and Performance	November 2002 to date
Mr Arie van der Bijl	Group Executive: Nuclear Technology Industrialisation	January 2008 to date
Ms Nishina Dayaram	Group Executive: Finance and Information Management	April 2008 to date
Mr Joseph Shayi	Group Executive: Technical Services	October 2008 to date
Mr Daniel Moagi	Group Executive: Human Resources	October 2009 to date
Ms Chantal Janneker	Group Executive: Marketing and Communication	June 2010 to date
Prof. Petro Terblanche	Group Executive: Research and Development	August 2010 to March 2011
Dr Ramatsemela Masango	Group Executive: Nuclear Compliance	June 2010 to date
Ex-officio member		
Mr Aukney Mabunda	Legal Services and Company Secretariat	

Remuneration of Senior Executives

The formulation and development of remuneration philosophy and policies of Senior Executives is guided by the Human Resource and Risk Management Committee and aligned with the achievement of long-term value for the organisation. Policies are regularly reviewed and bonuses linked to performance.



Executive Management Committee



Dr Rob Adam
Chief Executive Officer



Dr Van Zyl de Villiers
Group Executive:
Strategy and Performance



Mr Arie van der Bijl
Group Executive:
Nuclear Technology
Industrialisation



Ms Nishina Dayaram
Group Executive:
Finance and Information
Management



Mr Joseph Shayi
Group Executive:
Technical Services



Mr Daniel Moagi
Group Executive:
Human Resources



Ms Chantal Janneker
Group Executive:
Marketing and
Communication



Prof. Petro Terblanche
Group Executive:
Research and Development



Dr Ramatsemela Masango
Group Executive:
Nuclear Compliance



Mr Aukney Mabunda
Legal Services and Company
Secretariat
(Ex-officio member)

Corporate Governance (continued)

Internal Control and Risk Management

The Directors are ultimately responsible for the Group's system of internal control, designated to provide reasonable assurance against material misstatement and loss. The Group maintains a system of internal financial control designed to provide the Directors with assurance on the maintenance of proper accounting records and the reliability of financial information used within the business and for publication.

The internal control system includes:

- A documented organisational structure and reasonable division of responsibility;
- Established policies and procedures (including a Code of Ethics to foster a strong ethical climate); and
- Established mechanisms to ensure compliance.

Internal Audit

The Internal Audit function is responsible for:

- Assisting the Board and Management in monitoring the effectiveness of the Group's Risk Management process;
- Assisting the Board and Management in maintaining effective controls by evaluating those controls continuously to determine their efficiency and effectiveness and recommending improvements; and
- Assisting the Board and Management in achieving objectives by evaluating the performance of units, departments and subsidiaries to determine their effectiveness and efficiency and recommending improvements.

The controls subject to evaluation encompass:

- The information management environment;
- The reliability and integrity of financial operating information;
- The safeguarding of assets; and
- The effective and efficient use of the organisation's resources.

Audit plans are based on an assessment of risk areas, as well as on issues highlighted by the Audit Committee and Management. Audit plans are updated as is appropriate to ensure they are responsive to changes in the business. Significant findings are reported to the Audit and Finance Committee at each of its scheduled meetings. Follow-up audits are conducted in areas where significant internal control weaknesses are found.

Corporate Governance best practice requires that the internal audit function reports directly to the Audit Committee. Such direct reporting is ensured by the Audit Committee's mandate and practice to:

- Evaluate the effectiveness of internal audit;
- Review and approve the internal audit Charter, internal audit plans and internal audit conclusions about internal control;
- Review significant internal audit findings and the adequacy of corrective actions taken;
- Assess the performance of the internal audit function and the adequacy of available internal audit resources;
- Review significant differences of opinion between management and the internal audit function; and
- Consider the appointment, dismissal or reassignment of the head of internal audit.

The Charter of the Internal Audit Department provides that the head of Internal Audit has direct access to the Chief Executive Officer and the Chairperson of the Audit and Finance Committee.

Risk Management

The Board is responsible for governing risk management processes in accordance with Corporate Governance requirements. The enterprise-wide risk management process has the following principal objectives:

- Providing the Board with assurance that significant business risks are systematically identified, assessed and reduced to acceptable levels in order to achieve an optimal risk reward balance; and
- Making risk identification and risk management an integral part of the daily activities of everyone in the organisation.

Necsa's enterprise-wide risk management process is guided by the following key principles:

- A clear assignment of responsibilities and accountabilities;
- A common enterprise-wide risk management framework and process;
- The identification of uncertain future events that may influence the achievement of business plans and strategic objectives; and
- The integration of risk management activities within the organisation and across its value chains.

The Group has established an Internal Risk Management Committee which seeks to:



- Assist the EMC and the Board, with the development and implementation of the risk management strategy and policies;
- Develop a risk management process to identify Company risks and ensure all risks are identified and addressed through internal control mechanisms;
- Assist the EMC and the Board to review and monitor the risk management process, as well as the various possible risks Necsa is exposed to; and
- Provide necessary information to the EMC and the Board Audit and Finance Committee or any other committees of the Board as may be required from time to time.

The Committee meets on a quarterly basis to assess risk management progress and initiatives. Group risk management is guided by an approved risk management strategy which was adopted by the EMC and Board; and which has defined risk tolerance and acceptable risk appetite parameters. In addition to this, Internal Audit conducts a risk-based audit.

Necsa's integrated risk management implementation approach, among others, entails the development of strategic, functional and process risk profiles. Strategic risks are typically defined as those risks that may influence the achievement of strategic business objectives. Similarly, functional and process risks are defined as risks that may influence the achievement of functional and process objectives respectively.

Most Significant Risks

The most significant sustainability risks currently faced by the Group are:

- *Financial resource constraints* – As a public entity of the DoE, Necsa is mandated to undertake specific policy implementation and legislated functions as well as fulfil Ministerial obligations. To this extent Necsa is dependent on government grant funding which has been concurrently reduced over the past two the Medium Term Expenditure Framework periods, placing the organisation under significant financial strain. Initiatives are under way to bolster funding from other sources and this will be continued.
- *Misalignment of human resources with corporate objectives* – During the year under review Necsa initiated the implementation of a new business model in order to begin to effectively deal with the financial constraints facing the organisation as well as to gear up to respond to new opportunities that were arising as a result of government's IRP 2010 development process. This change necessitated a dual approach with primary focus on fulfilling

legislative requirements but also responding to new commercial opportunities either as a result of new innovation developments or in response to new government policies such as the IRP 2010. Necsa identified key HR requirements to give effect to its new business model and will progressively realise this as policy implementation and commercial opportunity exploitation allows.

- *Regulatory capacity constraints resulting in time overruns by the NNR* – The nuclear industry is characterised by the highest and most stringent regulatory requirements. Compliance with these regulatory requirements requires both Necsa, as the operator, and the NNR, as the regulator, to have the requisite skills and human capital to ensure an effective process with minimised turnaround times.

Whilst the operation of the SAFARI-1 research reactor on site may be perceived to be a significant risk, Necsa has maintained full compliance with NNR licensing requirements and continues to do so. Probabilistic Risk Analysis (PRA) at SAFARI-1 is carried out at three levels. Level 1 determines the risk of damage to the nuclear fuel in the reactor core, Level 2 the release of fission products from the nuclear fuel to the reactor confinement building and Level 3 the release of radioactive material from the reactor building and the radiological risk to the public.

The purpose of the current PRA for SAFARI-1 is to comply with NNR requirements in respect of the Safety Assessment Report. A probabilistic safety analysis of a nuclear installation is carried out in order to:

1. Provide a systematic analysis to give confidence that the nuclear installation design will comply with the safety objectives and regulatory criteria;
2. Demonstrate that a balanced design has been achieved such that no particular feature or Postulated Initiating Event (PIE) makes a disproportionately large or significantly uncertain contribution to the overall risk, and that the first two levels of defence in depth are carrying the primary burden of nuclear safety;
3. Provide confidence that no design basis accident is on the threshold of a sudden escalation due to the consequences of associated PIEs;
4. Provide assessments of the probability of occurrence of severe reactor core damage states, and the risk of large off-site releases;
5. Provide assessments of the probability of occurrence and consequences of external hazard events, in particular those unique to the Necsa site;
6. Identify systems for which design improvements or operational procedures could reduce the probability of system failures and

Corporate Governance (continued)

- severe accidents or mitigate their consequences;
- 7. Assess the adequacy of plant emergency procedures; and
- 8. Check compliance with probabilistic targets.

The responsibility for monitoring the management, by line management, of each of these risks is assigned to an Executive Committee member. The Group risk management follows the Committee of Sponsoring Organisations of the Treadway Commission (COSO) enterprise risk management framework to ensure alignment with best practice. To give effect to this framework, Necsa approved a risk management policy during 2009. In addition to the policy a risk management strategy was also approved during 2009. This strategy outlines roles and responsibilities for risk identification, assessment and management as well as the overall risk management process. As a nuclear organisation operating a nuclear research reactor, sustainability risks relating to safety, security, regulatory compliance and commercial success of subsidiaries define Necsa's risk tolerance at a risk rating level of ≥ 20 (i.e. risks with very high impact and high likelihood of occurrence). Whilst Necsa's risk appetite has not been explicitly defined, this is monitored periodically through its risk profile variation as well as progress on risk mitigation actions. The Group risk management process is as follows:

- Risk management is applied within all the divisions and subsidiaries as a continuous proactive process by management and personnel.
- All Necsa divisions and subsidiaries review the risks that may impact on the achievement of business objectives annually.
- Residual risks are rated on a five point scale in terms of impact and likelihood of occurrence. The product of these ratings gives the total risk rating, with a maximum possible score of 25.
- The divisional and subsidiaries' risks are then captured in risk registers on the Internal Risk Management Committee (IRMC) corporate data base. Residual risks are rated and progress on specific mitigation actions is monitored.
- Risk information and assessments are considered by the IRMC on a quarterly basis. Risk ratings are also moderated where necessary to ensure a consistent overview of corporate risks.
- The IRMC compiles a Necsa Risk Management Plan which is submitted to the EMC for confirmation.
- The annually updated plan is also submitted to the Audit and Risk Committee (ARC) of the Board for approval.
- The status of implementation of actions to address the risks captured in this plan is provided to the EMC and ARC as part of the quarterly reporting process.
- Management of Necsa's subsidiaries are responsible for the

implementation of risk management plans covering their business activities which are submitted to the relevant subsidiary Boards and Audit and Risk Committees for consideration.

In addition to the risk management plan, Necsa annually prepares a Fraud Prevention plan for approval by the ARC; and in this regard has also commissioned a fraud prevention hotline. The internal audit coverage plan is risk-based, as the official risk management plans of the Group are utilised as the basis for the drafting of audit plans in the different focus areas. The highest identified risks in risk management plans, i.e. those at and above the threshold of Necsa's risk appetite are considered for inclusion in the internal audit coverage plan. However, in some instances the auditor may use its own discretion to include risks with a lower likelihood and impact, as well as own identified risks. Risk management plans are incorporated in the Necsa Corporate Plan that is submitted to both the accounting and executive authorities on a regular basis.

Assurance for the risk management process is provided through a series of inter-related processes which include the IRMC, Internal Audit, the Audit and Risk Committee and ultimately the Board.

Disaster recovery plans are continually reviewed for critical information management systems that could have a material impact on the Group's continuing operations.

Sustainability Assurance and Reporting

Necsa currently derives sustainability assurance through several integral aspects of its functioning including:

- Annual preparation of a Corporate Business Plan (including amongst others, a Shareholder's Compact) in compliance with the applicable requirements of the PFMA and Treasury Regulations; which is then approved by the Minister of Energy. Performance against the Shareholder's Compact is continually monitored through a quarterly reporting and performance review processes.
- Necsa's enterprise wide risk management system provides for periodic risk assessment and monitoring which is considered by the Internal Risk Management Committee before receiving consideration by the Board Audit and Risk Committee. Risk management at Necsa is also under the purview of Internal Audit.
- Necsa regards SHEQ of paramount importance due to the nature of the industry it operates in and meets the full compliance requirements of the NNR. The Necsa SHEQ Committee regularly considers SHEQ implementation issues before these are considered



by Board SHEQ and Technical Committee. SHEQ is also under the purview of Internal Audit.

- Over and above internal checks and balances, Necsa engages external auditors to further ensure compliance with all relevant financial, governance and legislative standards and requirements. Necsa strives to be ready for independent assurance of sustainability for its 2013 annual report. An assurance readiness plan in this regard will be developed during the 2013 financial year.
- A business continuity plan has been developed for the Group and implementation of this has commenced with an Information Technology Disaster Recovery Plan (IT DRP) having been implemented.

The Company reports to the Board and its stakeholders on all aspects of its social, transformation, ethical and safety, health and environmental policies and practices. (See pages 27–47 of this report for comprehensive reporting on Necsa's sustainability).

Worker Participation and Employment Equity

The Group has established participative structures on issues that affect employees directly and materially and is committed to promoting equal opportunities and fair employment practices regardless of employees' ethnic origin or gender. Several programmes are in place to ensure realisation of worker participation and equity, namely:

- The Necsa Retirement Fund Committee which is an independent body that acts as a governance structure for the fund;
- The Employment Equity Committee which is responsible for alerting management on equity issues;
- The Women in Nuclear (WIN-Necsa) forum, an affiliate of Women in Nuclear in South Africa (WIN-SA), through which the interests of Necsa's women in nuclear are promoted; and
- The South African Young Nuclear Professionals (SAYNPS), a body representing the interests of young nuclear professionals in the country.

Code of Ethics

The Company's Code of Ethics spells out fundamental ethical principles and standards in accordance with which Necsa will conduct itself with its various stakeholders, namely customers, suppliers, financiers and government departments. The Code emphasises the highest standards of compliance with various laws and regulations.

The principles contained in the Code have been communicated

throughout the Group. A 24-hour fraud and corruption hotline is in place and has been operated by an independent service provider since 2004. Through this, staff members are able to safely, and without fear of victimisation, bring to the attention of management and the Board, serious irregularities, that can be addressed by management.

The Group typically responds to implementation of its Code of Ethics as follows:

- The present Code of Ethics and Values was launched in 2008 by the Necsa Board and CEO. Posters reflecting the different values were distributed throughout Necsa and placed on notice boards and in restrooms.
- The Human Resources Division and in particular the Organisational Development Department oversees implementation in partnership with the Industrial Relations Department and Legal Office.
- A Necsa Values and Diversity Day is held on a yearly basis to reinforce the Necsa ethics and values as well as create awareness throughout the Company. A hotline was established for employees to report unethical behaviour.
- A paragraph in the employment contract encourages employees to acquaint themselves with Necsa's disciplinary code and values.

Public Finance Management Act

The Necsa Group complies in all material respects with the requirements of the Public Finance Management Act (PFMA), No. 1 of 1999.

Significance and Materiality Framework

The materiality framework for reporting losses through criminal conduct and irregular, fruitless and wasteful expenditure, as well as for significant transactions envisaged per section 54(2) of the PFMA, has been confirmed by the Board and the shareholder compact. Losses through criminal conduct or irregular, fruitless and wasteful expenditure which are identified are disclosed as prescribed in the Act.

Governing Policies and Regulatory Framework

International Agreements and Implementation

The execution of the Safeguards and Nuclear Non-proliferation Agreements is reported on page 27 of this report.



Financial Report

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General Information

Country of incorporation and domicile	South Africa
Nature of business and principal activities	The South African Nuclear Energy Corporation Limited is responsible for managing certain institutional obligations defined in the Nuclear Energy Act, No. 46 of 1999.
Directors	Dr EM Dipico Adv. N Shaik-Peremanov Dr RM Adam Dr NM Bhengu Mr AS Minty Mr GP Tshelane Mr JB Keshaw (Alternate Director to LF Aphone) Mr LF Aphone Mr LM Gumbi (Alternate Director to AS Minty) Ms LN Noxaka Mr VZ Msimang Prof. T Majazi
Registered office	Church Street West Extension Brits District Pelindaba North West Province 2025
Business address	Church Street West Extension Brits District Pelindaba North West Province 2025
Postal address	PO Box 582 Pretoria 0001
Holding entity	Department of Energy
Bankers	Absa Bank Limited
Auditors	Auditor-General of South Africa
Secretary	Mr AC Mabunda
Company registration number	2000/003735/06

Directors' Responsibilities and Approval

The Directors are required in terms of the Companies Act of South Africa 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 their responsibility to ensure that the annual financial statements fairly present the state of affairs of the Group as at the end of the financial year and the results of its operations and cash flows for the period then ended, in conformity with South African Statements of Generally Accepted Accounting Practice.

The annual financial statements are prepared in accordance with South African Statements of Generally Accepted Accounting Practice and the Public Finance Management Act, No. 1 of 1999 are based upon appropriate accounting policies consistently applied and supported by reasonable and prudent judgments and estimates.

The Directors acknowledge that they are ultimately responsible for the system of internal financial control established by the Group and place considerable importance on maintaining a strong control environment. To enable the Directors to meet these responsibilities, the Board of Directors sets standards for internal control aimed at reducing the risk of error or loss 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 Group and all employees are required to maintain the highest ethical standards in ensuring the Group's business is conducted in a manner that in all reasonable circumstances is above reproach. The focus of risk management in the Group is on identifying, assessing, managing and monitoring all known forms of risk across the Group. While operating risk cannot be fully eliminated, the Group 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 loss.

The Directors have reviewed the Group's cash flow forecast for the year to 31 July 2012 and, in light of this review and the current financial position, they are satisfied that the Group has or has access to adequate resources to continue in operational existence for the foreseeable future.

The external auditors are responsible for independently reviewing and expressing an independent opinion on the Group's annual financial statements. The annual financial statements have been examined by the Group's external auditors and their report is presented on page 76.

The annual financial statements and supplementary statements set out on pages 78–169, which have been prepared on the going concern basis, were approved by the Board of Directors on 29 July 2011 and are signed on its behalf by:



Dr Manne Dipico
Chairperson
29 July 2011



Dr Rob Adam
Chief Executive Officer
29 July 2011

Report of the Auditor-General

Report of the Auditor-General to Parliament on the Financial Statements of the South African Nuclear Energy Corporation Limited

Report on the Consolidated Financial Statements

Introduction

1. I have audited the accompanying consolidated and separate financial statements of the South African Nuclear Energy Corporation Limited, which comprise the consolidated and separate statement of financial position as at 31 March 2011, and the consolidated and separate statement of comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, a summary of significant accounting policies and other explanatory information, the report of the audit and risk committee and the accounting authority's report as set out on pages 78 to 169, excluding page 80 and 85 to 89.

Accounting Authority's Responsibility for the Consolidated Financial Statements

2. The accounting authority is responsible for the preparation and fair presentation of these consolidated and separate financial statements in accordance with the South African Statements of Generally Accepted Accounting Practice (SA Statements of GAAP) and in the manner required by the Public Finance Management Act of South Africa (Act No. 1 of 1999) (PFMA) and Companies Act of South Africa (Act No. 61 of 1973) (Companies Act of South Africa), and for such internal control as management determines necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor-General's Responsibility

3. As required by section 188 of the Constitution of the Republic of South Africa (Act No. 108 of 1996) and section 4 of the Public Audit Act of South Africa (Act No. 25 of 2004) (PAA), my responsibility is to express an opinion on these financial statements based on my audit.
4. I conducted my audit in accordance with International Standards on Auditing and *General Notice 1111 of 2010* issued in *Government Gazette 33872 of 15 December 2010*. Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated

and separate financial statements are free from material misstatement.

5. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated and separate financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the consolidated and separate financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated and separate financial statements 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 entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated and separate financial statements.
6. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Opinion

7. In my opinion, the consolidated and separate financial statements present fairly, in all material respects, the financial position of the South African Nuclear Energy Corporation Limited and its subsidiaries as at 31 March 2011, and their financial performance and cash flows for the year then ended in accordance with the SA Statements of GAAP and the requirements of the PFMA and Companies Act of South Africa.

Emphasis of Matters

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

Restatement of Corresponding Figures

9. As disclosed in Note 45 to the financial statements, the corresponding figures for 31 March 2010 have been restated as a result of an error between Property, Plant and Equipment and Investment Property discovered during the 2011 financial year, amounting to R29 million in the financial statements of the South African Nuclear Energy Corporation Limited at, and for the year ended, 31 March 2010.

Report on Other Legal and Regulatory Requirements

10. In accordance with the PAA and in terms of *General notice 1111 of 2010*, issued in *Government Gazette 33872 of 15 December 2010*, I include below my findings on the annual performance report as set out on pages 85 to 89 and material non-compliance with laws and regulations applicable to the public entity.

Predetermined Objectives

11. There are no material findings on the annual performance report concerning the presentation, usefulness and reliability of the information.

Compliance with Laws and Regulations

Expenditure Management

12. The accounting authority did not take effective and appropriate steps to prevent fruitless & wasteful expenditure as per the requirements of section 51(1) (b) of the PFMA.

Internal Control

13. In accordance with the PAA and in terms of *General notice 1111 of 2010*, issued in *Government Gazette 33872 of 15 December 2010*, I considered internal control relevant to my audit, but not for the purpose of expressing an opinion on the effectiveness of internal control. The matter reported below is limited to the significant deficiency that resulted in the finding on non-compliance with laws and regulations included in this report.

Financial and Performance Management

14. The fruitless and wasteful expenditure could have been prevented had compliance with laws and regulations been properly reviewed and monitored by management.

Aud. for General!

Pretoria
29 July 2011



Report of the Audit and Risk Committee

We are pleased to present our report for the financial year ended 31 March 2011.

Audit and Risk Committee Terms of Reference

The Audit and Risk Committee reports that it has adopted formal terms of reference, that have been approved by the Board of Directors. The Committee has conducted its affairs in compliance with its terms of reference and has discharged its responsibilities contained therein. The terms of reference are available on request.

Audit Committee Members, Meeting Attendance and Qualifications

The Committee is independent and consists of three independent, Non-executive Directors. It meets at least four times per year as per its terms of reference. Attendance of meetings, dates of appointments as well as qualifications of the members are included in the governance report.

Roles and Responsibilities

Statutory Duties

The Committee's role and responsibilities include statutory duties as per the Companies Act, 1973, PFMA, No. 1 of 1999 and further responsibilities assigned to it by the Board.

External Auditor Appointment and Independence

The Committee has satisfied itself that the external auditor was independent of the Company, as set out in the Companies Act, which includes consideration of compliance with criteria relating to independence or conflicts of interest as prescribed by the Independent Regulatory Board for Auditors. Requisite assurance was sought and provided by the external auditor that internal governance processes within the audit firm support and demonstrate its claim to independence.

The Committee, in consultation with executive management, agreed to the engagement letter, terms, audit plan and budgeted audit fees for the 2011 year.

Financial Statements and Accounting Practices

The Committee has evaluated the annual financial statements of Necsa and the Necsa Group for the year ended 31 March 2011 and, based on the information provided to the Audit and Risk Committee, considers that they comply, in all material respects with the requirements of the Companies Act and the PFMA, and South African Statements of Generally Accepted Accounting Practice. The Committee concurs that the adoption of the going concern premise in the preparation of the financial statements is appropriate. The Committee has recommended the adoption of the financial statements and the integrated report by the Board of Directors.

The Audit and Risk Committee has:

- Reviewed and discussed with the Auditor-General and Accounting Authority, the audited annual financial statements;
- Reviewed the Auditor-General's management letter and management response;
- Reviewed changes in accounting policies and practices;
- Reviewed significant adjustments resulting from the audit; and
- Reviewed and discussed with the Accounting Authority, Performance Information submitted to the Auditor-General.

Internal Financial Controls

The Audit and Risk Committee is satisfied that internal controls and systems have been put in place and that these controls have functioned effectively during the period under review. The Committee has overseen a process by which internal audit has performed audits according to a risk-based audit plan where the effectiveness of risk management and internal control systems including financial internal controls were evaluated. The findings of these evaluations formed the basis for the Committee's recommendation in this regard to the Board, in order for the Board to report thereon.

The Audit and Risk Committee is satisfied, based on the information and explanations given by management and internal audit as well as through discussions with the Auditor-General on the result of their audits that an adequate system of internal control is being maintained to:

- Reduce the entity's risk to an acceptable level;
- Meet the business objectives of the organisation;
- Ensure the organisation's assets are adequately safeguarded; and
- Ensure that the transactions undertaken are recorded in the organisation's records

Going Concern

The Committee has reviewed management's assessment of the going concern status of the Company and has made recommendation to the Board in accordance.

Internal Audit

The Committee is responsible for ensuring that the Company's internal audit function is independent and has the necessary resources, standing and authority within the Company to enable it to discharge its duties. Furthermore, the Committee oversees co-operation between the internal and external auditors, and serves as a link between the Board of Directors and these functions.

The Committee considered and approved the internal audit charter. The internal audit function's annual audit plan and three year strategic plan were approved by the Committee.

The internal audit function reports administratively to the Chief Executive Officer and functionally to the Audit and Risk Committee and is responsible for reviewing and providing assurance on the adequacy of the internal control environment across all of the Company's operations. The internal audit manager has direct access to the Committee, primarily through its Chairperson.

From the various reports of the Internal Auditors, it was noted that no matters were reported that indicate any material deficiencies in the systems of internal control. Risks that have been identified through various processes are being addressed.

Expertise and Experience of Chief Financial Officer and Finance Function

The Committee has satisfied itself that the Chief Financial Officer has appropriate expertise and experience. The Committee has considered, and has satisfied itself of the appropriateness of the expertise and adequacy of resources of the finance function and experience of the senior members of management responsible for the financial function.

Governance of Risk

The Committee oversees the implementation of the policy and plan for risk management taking place by means of risk management systems and processes. The Committee is satisfied that appropriate and effective systems are in place for risk management.

Auditor-General

During the year, the Committee met with the external auditors, without management being present. The Audit and Risk Committee accepts that the audit opinion of the Auditor-General on the annual financial statements and recommends that the audited financial statements be accepted and read together with the report of the Auditor-General.

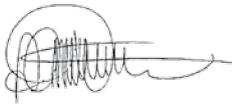


Ms Noluphumzo Noxaka

Chairperson: Necsa Audit and Risk Committee
29 July 2011

Company Secretary's Certificate

In my capacity as the Company Secretary, I hereby confirm, in terms of the South African Companies Act, No. 61 of 1973, that for the year ended 31 March 2011, Necsa has lodged with the Registrar of Companies all such returns as are required of a public company in terms of the Act, and that all such returns are, to the best of my knowledge and belief, true, correct and up to date.



Mr Aukney Mabunda
Company Secretary
29 July 2011

Directors' Report

The Directors have pleasure in submitting their report and the annual financial statements of the Company for the year ended 31 March 2011.

Incorporation

The Company was incorporated on 24 February 2000 and obtained its certificate to commence business on the same day.

Review of Activities

Main business and operations

Necsa is responsible for managing certain institutional obligations defined in the Nuclear Energy Act, No. 46 of 1999. The main functions of the Company are:

- To undertake and promote research and development in the field of nuclear energy and radiation sciences and technology and subjected to the Safeguards agreement, to make these generally available;
- To process source material, special nuclear material and restricted material and to process and enrich source material and nuclear material; and
- To co-operate with any person or institution in matters falling within these functions subject to the approval of the minister.

Ancillary powers and functions may be granted to the Company:

- In connection with its main functions;
- In order to create and utilise viable business opportunities in commerce and industry; and
- In order to undertake the development and/or exploitation of nuclear technology or nuclear related technology.

The subsidiaries in turn, have a mandate from Necsa to operate the companies in a self sustainable manner and to remain competitive in the industries within which they operate.

The operating results and state of affairs of the Company are fully set out in the attached annual financial statements and do not in our opinion require any further comment.

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.

The ability of the Company to continue as a going concern is dependent on a number of factors. The most significant of these is that the Department of Energy continue to provide funding for the ongoing operations of the Company.

The Directors have reviewed the Group's forecast financial performance for the year 31 March 2012 as well as the longer term budget and, in light of this review and the current financial position, they are satisfied that the Group has access to adequate resources to continue in operational existence for the foreseeable future.

Events after the Reporting Period

The South African Revenue Services (SARS) has approved an exemption in respect of The South African Nuclear Energy Corporation Limited under section 10(1)(cA)(i) of the Income Tax Act subject to certain conditions. Management is in the process of finalising the matter with the SARS.

Directors' Interest in Contracts

All Directors have given general declarations of interest in terms of section 234 (3a) of the Companies Act. These declarations indicate that the Chief Executive Officer (CEO), Dr RM Adam, holds a directorship in Pebble Bed Modular Reactor (Pty) Ltd, a company classified as a related party to the Group. Refer to Note 43 for details on transactions entered into during the year.

Authorised and Issued Share Capital

There were no changes in the authorised or issued share capital of the Group during the year under review.

Dividends

No dividends were declared or paid to shareholders during the year.

Directors' Report (continued)

Directors

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

Name	Nationality	Changes
Dr EM Dipico (Chairman)	South African	
Adv. N Shaik-Peremanov	South African	
Dr RM Adam (Chief Executive Officer)	South African	
Dr NM Bhengu	South African	
Mr AS Minty	South African	
Mr GP Tshelane	South African	
Mr JB Keshaw (Alternate Director to LF Aphane)	South African	Appointed 1 August 2010
Mr LF Aphane	South African	
Mr LM Gumbi (Alternate Director to AS Minty)	South African	Appointed 1 April 2010
Ms LN Noxaka	South African	
Mr VZ Msimang	South African	Appointed 1 April 2010
Prof. T Majozi	South African	
Mr XM Mabhongo	South African	Resigned 1 February 2011

Secretary

The secretary of the Company is Mr AC Mabunda. His address is as follows:

Business Address Church Street West Extension
Brits District
Pelindaba
North West Province
2025

Postal Address PO Box 582
Pretoria
0001

Holding Entity

The Company's holding entity is the Department of Energy.

Interest in Subsidiaries

Name of Company	Nature of business	Issued share capital		Effective percentage		Number of shares		Indebtedness		Profit/(loss) after taxation	
		2011	2010	2011	2010	2011	2010	2011	2010	2011	2010
		R	R	%	%	2011	2010	R'000	R'000	R'000	R'000
AEC Amersham (Pty) Ltd ²	Marketing of radiopharmaceutical products	4,000	4,000	100	100	4,000	4,000	-	-	3,903	5,002
ARECSA Human Capital (Pty) Ltd ⁶	Training in nuclear and related industries	1,000	1,000	51	51	510	510	-	-	192	(1,564)
Cyclofil (Pty) Ltd ⁶	Dormant	1	1	100	100	1	1	-	-	-	-
Cyclotope (Pty) Ltd ²	Dormant	100	100	100	100	100	100	-	-	58	0,39
Fluoro Pack (Pty) Ltd ¹	Dormant	100	100	100	90	100	90	-	-	277	808
Fluorochem (Pty) Ltd ¹	Dormant	100	100	100	100	100	100	-	-	-	-
Fluoropharm (Pty) Ltd ¹	Dormant	4,000	4,000	100	100	4,000	4,000	-	-	-	-
Gamma Film Industries (Pty) Ltd ⁴	Dormant	100	100	55	55	100	100	-	-	3,084	2,869
Gammatec Aseana NDT Supplies SDN. BHD ⁴	Non-destructive testing equipment, accessories and consumables	1,119,075	1,115,775	49.5	49.5	450,000	450,000	-	-	(698)	(598)
Gammatec Middle East General Trading Liability Company ⁴	Non-destructive testing equipment, accessories and consumables	553,110	594,960	41.81	41.8	75,000	75,000	-	-	(1,010)	(2,180)
Gammatec NDT Supplies (Pty) Ltd ²	Non-destructive testing equipment, accessories	300	300	55	55	165	165	-	-	12,712	3,110
Lectromax Australia Pty Ltd ⁴	Non-destructive testing equipment	140	134	49.5	49.5	18	18	-	-	(2,831)	-
Lectromax New Zealand (Pty) Ltd ⁵	Dormant	5,157	5,157	49.5	49.5	1,000	1000	-	-	(199)	-
NTP Logistics (Pty) Ltd ²	Logistics	100	100	51	51	51	51	-	-	5,331	5,194
NTP Radioisotopes (Pty) Ltd ⁶	Marketing and distribution of radiopharmaceuticals	220	220	100	100	220	220	11,602	11,289	160,517	178,179
Pelchem (Pty) Ltd ⁶	Fluorochemical products	770,310	770,310	100	100	770,310	770,310	12,684	11,909	(3,399)	(13,738)
Pharmatopes (Pty) Ltd ³	Dormant	1,000	1,000	100	100	1,000	1,000	-	-	1,712	1,231

1 Subsidiary of Pelchem (Pty) Ltd. Fluoropack (Pty) Ltd became dormant during the year.

2 Subsidiary of NTP Radioisotopes (Pty) Ltd.

3 Subsidiary of AEC Amersham (Pty) Ltd.

4 Subsidiary of Gammatec NDT Supplies (Pty) Ltd. Gamma Film Industries (Pty) Ltd became dormant during the year. Differences in share capital between the current and prior year are due to foreign exchange differences.

5 Subsidiary of Lectromax Australia (Pty) Ltd.

6 Subsidiary of Necsa Limited.

Details of the Company's investment in subsidiaries are set out in Note 8.

Directors' Report (continued)

Interest in Associates

Name of Company	Nature of business	Issued share capital		Effective percentage		Number of shares	
		2011	2010	2011	2010	2011	2010
		R	R	%	%		
Business Venture Exploration Investments No. 33 (Pty) Ltd ³	Mineral exploration (dormant)	3,840	3,840	41.61	41.61	1,598	1,598
Linde Electronics of South Africa (Pty) Ltd ¹	Manufacturing and distribution of nitrogen tri-fluoride	1,000	1,000	49.9	49.9	499	499
Oserix ²	Supply isotopes and accessories for the radiographic non-destructive testing market	582	26	25	-	2,500	-

1 Associate of Pelchem (Pty) Ltd.

2 Associate of Gammatec NDT Supplies (Pty) Ltd.

3 Associate of Necsa Limited.

Details of the Group's investment in associates are set out in Note 9.

Auditors

The Auditor-General of South Africa will continue in office in accordance with the Public Finance Management Act (PFMA), No. 1 of 1999, and section 270(2) of the Companies Act, No. 61 of 1973.

Compliance with Legislation

The Directors believe the Group has complied, in all material respects, with the provisions of the Public Finance Management Act, No. 1 of 1999, the Companies Act, No. 61 of 1973 and the Nuclear Energy Act, No. 46 of 1999 and other applicable legislation during the period under review.

Performance Measured Against Predetermined Objectives

Overall Summarised Necsa Key Performance Areas 2010/11

Output KPA	Indicator KPI	2010/11 Target	2010/11 Actual	Notes
1. Necsa Group annual sales	Annual percentage growth in Group sales	8.7%	5.5%	Group target not achieved mainly due to unfavourable market conditions for nuclear manufacturing and slow chemical industry affecting Pelchem Group
2. Necsa core grant	Annual percentage growth in core grant	(1.8%)	6.8 %	Increase due mainly to deferment of grants arising on capex spend to be in line with the useful life of assets as well as other deferrals
3. Necsa other grant income	Annual percentage growth in other grant income	(62.4%)	10.4%	National Equipment Programme grant received from the NRF
4. Refereed research publications	Number of refereed research publications per annum	27	17	Target not achieved due to scheduling of articles by publishers
5. Product and process innovations	Number of innovations	8	31	Exceeded target due to increased focus on commercially directed development work
6. Nuclear fuel cycle (PWR) programme implementation	Achievement of strategic project objectives	Concept design for NFC development facilities completed	Concept for NFC completed and included in various study reports	Target achieved
7. Black technical professionals	Black technical professionals as percentage of all technical professional staff	26%	29%	Target exceeded mainly as a result of initiatives relating to staff development
8. Investment in training	Investment in training as percentage of staff budget	7.4%	8%	
9. Public dose impact percentage of annual constraints (releases and events)	The actual public dose impact for the release for 2010 calendar year (Target: 85% of 3-calendar year moving average)	0.007 mSv	0.009 mSv	Attributed to normal operations (but well below NNR authorised limit of 0.250 mSv)
10. Unqualified audit: Compliance with GAAP accounting, auditing and PFMA requirements	Number of annual report qualifications	0	0	Target achieved
11. National key point reportable security incidents	No NKP events	0	0	Target achieved
12. Amended: Marketing and Communication to stimulate public awareness on nuclear energy	12.1 Improve public perceptions of nuclear technologies as measured by the Emex rating	15 points	15 points	Target achieved
	12.2 Promote and grow the Necsa brand as measured by the MSA rating	58%	62%	The better than target performance, is due mainly to: <ul style="list-style-type: none"> • Awarding of a contract by US DOE to NTP/Necsa consortium and the US; • The launch of the Visitor Centre; and • The launch of the DTTC

Performance Measured Against Predetermined Objectives (continued)

Necsa Predetermined Objectives and Key Performance Indicators Based on the NEA Institutional Mandate and Obligations

Output KPA	Indicator KPI	2010/11 Target	2010/11 Actual	Notes
Institutional Mandate				
1. Nuclear research and development: NEA Section 13(a)				
1.1 Research publications	1.1.1 Number of refereed research publications per annum	27	17	Target not achieved due to scheduling of articles by publishers
1.2 Innovations value chain: Inventions, improvements or discoveries having commercial application potential or constituting a significant benefit to an existing process, product, or operation	1.2.1 Number of innovation disclosures at Necsa	8	31	Exceeded target due to increased focus on commercially directed development work
	1.2.2 Number of provisional patent applications	4	1	Less patents submitted due to confidential nature of process directed work
	1.2.3 Number of PCT applications	4	4	Achieved
	1.2.4 Number of granted international patents	20	12	Target not achieved due to delays in patenting examinations by patenting agencies
Institutional Mandate				
2. Nuclear Fuel: Process source material, nuclear fuel and enrichment including projects and services related to or in support of this mandate: NEA Section 13(b)				
2.1 Nuclear fuel cycle (PWR) programme implementation: - Conversion - Enrichment - Fuel fabrication - EURO (Enriched uranium recovery and optimisation)	2.1.1 Achievement of strategic programme project objectives	Concept design for NFC development facilities completed	Concept for NFC completed and included in various study reports	Target achieved
2.2 MTR-LEU fuel and target plate manufacturing	2.2.1 Achievement of strategic programme project objectives	Plant concept design completed	Concept design not completed	Project target for completion of basic design had to be extended by six months due to an unforeseen delay due to clarification of basic design and production requirements with the NNR
2.3 Nuclear Manufacturing: Manufacturing nuclear components, general engineering	2.3.1 Achievement of annual turnover	R62 million	R51.7 million	Nuclear Manufacturing experienced generally unfavourable market conditions during the last two quarters of the year

Output KPA	Indicator KPI	2010/11 Target	2010/11 Actual	Notes
Institutional Mandate				
3. Commercial exploitation of nuclear and related products and services: NEA Section 14, and the application of radiation technology for medical or scientific purposes: NEA Section 1(xii)(c)				
3.1 NTP Group: External sales revenue of products and services	3.1.1 Sales revenue arising from operational activities	R762 million	R869 million	The sales performance was exceeded largely as a result of NTP's response to the current global Mo-99 supply shortage and its ability to increase capacity
3.2 Pelchem Group: External sales revenue of products and services	3.2.1 Sales arising from operational activities	R185 million	R162 million	Slow recovery of chemical market from recession and exchange rate constraints
3.3 Necsa Corporate: External sales	3.3.1 External sales	R323 million	R312 million	Nuclear manufacturing experienced generally unfavourable market conditions
3.4 Necsa Group: External sales revenue of products and services	3.4.1 Total sales arising from operational activities	R1,075 million	R1,107 million	Better performance than expected mainly on the NTP Group
Institutional Mandate				
4. Decommissioning and decontamination of nuclear facilities: NEA Section 1(xii)(a)				
4.1 D&D programme execution: Effective discharge of nuclear liabilities associated with past strategic disused nuclear facilities NEA Section 1(xii)(a)	4.1.1 Execution of "Annual Plan of Action" as submitted and approved by DoE	100%	100%	Target achieved
Institutional Mandate				
5. Operation of SAFARI: NEA Section 1(xii)(d)				
5.1 SAFARI-1 reactor availability	5.1.1 SAFARI-1 operational availability (reactor days available of days scheduled)	304/304 days available	306 days available	Target exceeded due to an effective maintenance programme and fully staffed and trained reactor operations group
Institutional Mandate				
6. Operation of Necsa site and services: NEA Sec 1(xii)(e)				
6.1 Site and infrastructure maintenance	6.1.1 Amount spent on maintenance (subject to funds available)	R47 million	R43 million	Reprioritisation of spending due to financial constraints and reallocation to other operational activities
Institutional Mandate				
7. Implementation and execution of the safeguards: NEA Section 1(xii)(f)				
7.1 Nuclear safeguards implementation and execution of safeguards management services	7.1.1 Performance in terms of annual Safeguards Activity Plan objectives (measured as percentage achievement)	100%	100%	Target achieved

Performance Measured Against Predetermined Objectives (continued)

Output KPA	Indicator KPI	2010/11 Target	2010/11 Actual	Notes
Institutional Mandate				
8. SHEQ: Developing and maintaining a corporate SHEQ System and meeting safety health and environmental requirements (nuclear licences, Occupational Safety Act and various environmental acts and licences)				
8.1 SHEQ management services	8.1.1 SHEQ Management Compliance – Audited compliance in terms of 224 elements of the Necsa SHEQ System including related legal requirements – the norm for satisfactory compliance is considered as 80%	81%	76.3%	Performance lower than the target due to lower performance in non-core areas
	8.1.2 Public dose impact percentage of annual constraints (releases and events) 3 year moving average	0.007 mSv	0.009 mSv	Attributed to normal operations (but well below NNR authorised limit of 0.250 mSv)
	8.1.3 Work-related injuries per employee, per annum measured in terms of TIR – 3 year moving average	4.9	4.3	Target exceeded
Institutional Mandate				
9. Security: Meeting security requirements in terms of NEA Section 29, NNRA Section 26, site license NL 27 and the NKPA				
9.1 Nuclear security services	9.1.1 National Key Point reportable events	0	0	Target achieved
Institutional Mandate				
10. Human Resources: Appointment of staff necessary for Necsa's activities: NEA Section 25				
10.1 Employment of technical staff	10.1.1 Percentage of technical staff in total staff	48%	46%	Target not achieved as a result of staff turnover
	10.1.2 Black technical staff as percentage of all technical staff	42%	42%	Target achieved
	10.1.3 Black technical professionals as percentage of all technical professional staff	26%	29%	Target exceeded mainly as a result of initiatives relating to staff development
	10.1.4 Number of interns as percentage of workforce (technicians and artisans included)	6%	6%	Target achieved

Output KPA	Indicator KPI	2010/11 Target	2010/11 Actual	Notes
10.2 Training and development	10.2.1 Investment in training as percentage of staff expenditure	7.4%	8%	Target exceeded mainly as a result of increased training on skills development and technical training
	10.2.2 Amended NSD Centre training output – Number of full-time semester students trained per annum through the NSD	280	487	Target exceeded due to special artisan training contracts with Department of Public Works and with the Development Bank of SA
11. Financial Management				
11.1 Compliance with GAAP accounting, auditing and PFMA institutional requirements	11.1.1 Number of annual report qualifications	0	0	Target achieved
11.2 Budget control	11.2.1 Budget deviation measured on an annual basis	0%	6.2%	Target achieved – the variance is due to timing differences which will flow subsequent to year end
11.3 Information management and services	11.3.1 Achievement of IT annual work programme (measured as percentage achievement of annual plan objectives)	100%	100%	Target achieved
12. Marketing and Communication				
Programmes to give effect to the Nuclear Energy Policy by promoting nuclear technology and the Necsa brand as directed by the NEP: Principle 14, Section 7				
12.1 Marketing and Communication to stimulate public awareness on nuclear energy	12.1.1 Improve public perceptions of nuclear technologies as measured by the Emex rating	15 points	15 points	Target achieved
	12.1.2 Promote and grow the Necsa brand as measured by the MSA rating	58%	62%	The better than target performance is due mainly due to: <ul style="list-style-type: none"> • Awarding of a contract with NTP/Necsa consortium and the US; • The launch of the Visitor Centre; and • The launch of the DTIC

Statements of Financial Position

on 31 March 2011

	Note	Group		Company		
		2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Assets						
Non-current Assets						
Investment property	4	52,105	44,881	107,849	94,121	80,875
Property, plant and equipment	5	737,485	699,201	583,035	556,550	213,778
Goodwill	6	14,587	15,781	-	-	-
Intangible assets	7	1,105	-	-	-	-
Investments in subsidiaries	8	-	-	319,519	319,519	336,660
Investments in associates	9	2	2	2	2	2
Loans to Group Companies	10	998	-	2	-	-
Other financial assets	12	69,057	62,136	69,044	62,124	47,177
Deferred tax	14	13,054	12,941	-	-	-
Finance lease receivables	15	1,341	-	-	-	-
		889,734	834,942	1,079,451	1,032,316	678,492
Current Assets						
Inventories	17	161,286	93,698	46,064	22,252	32,061
Loans to Group Companies	10	-	-	24,284	23,210	30,297
Current tax receivable		3,872	5,447	-	-	-
Finance lease receivables	15	629	-	-	-	-
Trade and other receivables	18	263,791	236,484	123,645	59,979	79,748
Cash and cash equivalents	19	482,732	326,372	109,896	103,406	85,477
		912,310	662,001	303,889	208,847	227,583
Non-current assets held-for-sale	20	2,130	-	-	-	-
Total Assets		1,804,174	1,496,943	1,383,340	1,241,163	906,075

	Note	Group		Company		
		2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Equity and Liabilities						
Equity						
Equity attributable to equity holders of parent						
Share capital	21	2,205	2,205	2,205	2,205	2,205
Reserves		335,830	324,065	304,726	303,577	(2,852)
Retained income		356,057	218,548	163,019	161,440	163,614
		694,092	544,818	469,950	467,222	162,967
Non-controlling interest		15,797	14,294	-	-	-
		709,889	559,112	469,950	467,222	162,967
Liabilities						
Non-current liabilities						
Loans from Group Companies	10	2,530	2,352	-	-	-
Other financial liabilities	24	2,166	2,162	-	-	-
Finance lease obligation	25	1,320	995	-	-	-
Retirement benefit obligation	16	357,780	351,072	343,972	330,606	313,258
Deferred income	26	255,206	187,932	255,206	187,932	149,213
Deferred tax	14	1,095	7,742	-	-	-
Provisions and employee benefit accruals	27	136,074	61,357	89,700	54,399	44,130
		756,171	613,612	688,878	572,937	506,601
Current Liabilities						
Loans from minority shareholders	11	882	1,700	-	-	-
Other financial liabilities	24	-	3,541	-	-	-
Current tax payable		442	1,556	-	-	23,983
Finance lease obligation	25	1,205	1,476	-	-	-
Trade and other payables	28	169,088	218,082	94,974	124,634	144,120
Deferred income	26	83,530	34,090	83,530	34,090	30,064
Provisions and employee benefit accruals	27	70,857	62,988	46,008	42,280	38,340
Retirement benefit obligation		-	118	-	-	-
Bank overdraft	19	12,110	668	-	-	-
		338,114	324,219	224,512	201,004	236,507
Total Liabilities		1,094,285	937,831	913,390	773,941	743,108
Total Equity and Liabilities		1,804,174	1,496,943	1,383,340	1,241,163	906,075

Statement of Comprehensive Income

for the year ended 31 March 2011

	Note	Group		Company	
		2011 R'000	2010 R'000	2011 R'000	2010 R'000
Revenue	30	1,612,035	1,520,941	806,732	710,123
Cost of sales	31	(710,090)	(649,054)	(200,995)	(205,446)
Gross profit		901,945	871,887	605,737	504,677
Other income		77,519	23,566	26,821	34,748
Operating expenses		(736,679)	(675,390)	(648,008)	(590,347)
Administrative expenses		(87,410)	(56,069)	(57,941)	(51,300)
Operating profit/(loss)	32	155,375	163,994	(73,391)	(102,222)
Investment revenue	33	52,480	54,823	54,576	64,870
Fair value adjustments		5,486	13,301	14,051	13,771
Income from equity accounted investments		(145)	(1,049)	-	-
Finance costs	34	(14,7817)	(20,955)	(4,988)	(2,576)
Profit/(loss) before taxation		198,379	210,114	(9,752)	(26,157)
Taxation	35	(68,920)	(46,394)	1,296	23,983
Profit/(loss) for the year		129,459	163,720	(8,456)	(2,174)
Other comprehensive income:					
Exchange differences on translating foreign operations		73	475	-	-
Available-for-sale financial assets adjustments		1,057	2,967	1,055	-
Gains and losses on property revaluation		20,237	321,595	10,129	303,466
Taxation related to components of other comprehensive income		-	-	-	2,963
Other comprehensive income for the year net of taxation	37	21,367	325,037	11,184	306,429
Total comprehensive income		150,826	488,757	2,728	304,255
Profit/(loss) attributable to:					
Owners of the parent		127,474	162,328	(8,456)	(2,174)
Non-controlling interest		1,985	1,392	-	-
		129,459	163,720	(8,456)	(2,174)
Total comprehensive income attributable to:					
Owners of the parent		148,841	487,365	2,728	304,255
Non-controlling interest		1,985	1,392	-	-
		150,826	488,757	2,728	304,255

Statements of Changes in Equity

for the year ended 31 March 2011

	Share capital R'000	Foreign currency translation reserve R'000	Revaluation reserve R'000	Fair value adjustment assets-available-for-sale-reserve R'000	Total reserves R'000	Retained income R'000	Total attributable to equity holders of the Group/ Company R'000	Non-controlling interest R'000	Total equity R'000
Group									
Opening balance as previously reported	2,205	-	1,882	(707)	1,175	177,224	180,604	3,329	183,933
Adjustments									
Prior period error	-	-	-	(2,147)	(2,147)	(177,129)	(179,276)	-	(179,276)
Change in accounting policy	-	-	-	-	-	56,125	56,125	-	56,125
Balance at 1 April 2009 as Restated	2,205	-	1,882	(2,854)	(972)	56,220	57,453	3,329	60,782
Changes in equity									
Total comprehensive income for the year	-	475	321,595	2,967	325,037	162,328	487,365	1,392	488,757
Acquisition of 55% subsidiary – Elimination of minority shareholders' interest	-	-	-	-	-	-	-	9,573	9,573
Total changes	-	475	321,595	2,967	325,037	162,328	487,365	10,965	498,330
Balance at 1 April 2010	2,205	475	323,477	113	324,065	218,548	544,818	14,294	559,112
Changes in equity									
Total comprehensive income for the year	-	73	20,237	1,057	21,367	127,474	148,841	1,985	150,826
Deferred tax on revaluation of assets	-	-	433	-	433	-	433	-	433
Increase of Purchase of additional 10% investment by Pelchem in Fluoropack	-	-	-	-	-	-	-	(482)	(482)
Amortisation of revaluation reserve	-	-	(10,035)	-	(10,035)	10,035	-	-	-
Dividends	-	-	-	-	-	-	-	(5,494)	(5,494)
Total changes	-	73	10,635	1,057	11,765	137,509	149,274	1,503	150,777
Balance at 31 March 2011	2,205	548	334,112	1,170	335,830	356,057	694,092	15,797	709,889
Note(s)	21	37	22&37	23&37		37			

Statements of Changes in Equity (continued)

	Share capital R'000	Foreign currency translation reserve R'000	Revaluation reserve R'000	Fair value adjustment assets-available-for-sale-reserve R'000	Total reserves R'000	Retained income R'000	Total attributable to equity holders of the Group/ Company R'000	Non-controlling interest R'000	Total equity R'000
Company									
Opening balance as previously reported	2,205	-	2,147	(2,852)	(705)	340,743	342,243	-	342,243
Adjustments									
Prior period adjustments	-	-	(2,147)	-	(2,147)	(177,129)	(179,276)	-	(179,276)
Balance at 1 April 2009 as Restated	2,205	-	-	(2,852)	(2,852)	163,614	162,967	-	162,967
Changes in equity									
Total comprehensive loss for the year	-	-	303,466	2,963	306,429	(2,174)	304,255	-	304,255
Total changes	-	-	303,466	2,963	306,429	(2,174)	304,255	-	304,255
Opening balance as previously reported	2,205	-	332,607	111	332,718	132,299	467,222	-	467,222
Adjustments									
Prior period error	-	-	(29,141)	-	(29,141)	29,141	-	-	-
Balance at 1 April 2010 as Restated	2,205	-	303,466	111	303,577	161,440	467,222	-	467,222
Changes in equity									
Total comprehensive loss for the year	-	-	10,129	1,055	11,184	(8,456)	2,728	-	2,728
Amortisation of revaluation reserve	-	-	(10,035)	-	(10,035)	10,035	-	-	-
Total changes	-	-	94	1,055	1,149	1,579	2,728	-	2,728
Balance at 31 March 2011	2,205	-	303,560	1,166	304,726	163,019	469,950	-	469,950
Note(s)	21	37	22&37	23&37		37			

Statements of Cash Flows

for the year ended 31 March 2011

	Note	Group		Company	
		2011 R'000	2010 R'000	2011 R'000	2010 R'000
Cash Flows from Operating Activities					
Cash receipts from customers		1,594,990	1,434,083	743,374	727,283
Cash paid to suppliers and employees		(1,284,874)	(1,160,410)	(701,802)	(692,510)
Cash generated from operations	38	310,116	273,673	41,572	34,774
Interest income		39,357	34,526	20,752	23,574
Finance costs		(1,812)	(2,707)	(16)	(1)
Tax (paid)/received	39	(75,218)	(79,262)	1,296	-
Net Cash from Operating Activities		272,443	226,230	63,604	58,347
Cash Flows from Investing Activities					
Purchase of property, plant and equipment	5	(96,693)	(89,766)	(59,161)	(72,548)
Sale of property, plant and equipment	5	1,632	165	461	-
Additions to intangible assets	7	(1,105)	-	-	-
Business combinations	40	-	(13,575)	-	-
Loans advanced to minority shareholders		-	(3,670)	-	-
Loans advanced to Group Companies		(1,816)	-	(1,076)	(12)
Proceeds from loans from Group Companies		-	-	-	7,099
Purchase of financial assets		-	(12,953)	-	(12,953)
Sale of financial assets		-	-	-	-
Purchase of available-for-sale financial assets		(2,932)	-	(2,931)	-
Acquisition of associate		(145)	-	-	-
Dividends received		64	48	28,586	37,997
Net Cash from Investing Activities		(100,995)	(119,751)	(34,121)	(40,417)
Cash Flows from Financing Activities					
Repayment of other financial liabilities		-	(2,428)	-	-
Decrease in borrowings		-	-	-	-
Finance lease payments		-	(1,046)	-	-
Finance lease receipts		-	-	-	-
Increase in post-retirement medical aid		(22,993)	-	(22,993)	-
Decrease in provision for other liabilities and charges		(3,537)	-	-	-
Net Cash from Financing Activities		(26,530)	(3,474)	(22,993)	-
Total Cash Movement for the Year		144,918	103,005	6,490	17,930
Cash at the beginning of the year		325,704	222,699	103,406	85,477
Total Cash at End of the Year	19	470,622	325,704	109,896	103,407

Accounting Policies

for the year ended 31 March 2011

1. Basis of Preparation

The annual financial statements have been prepared in accordance with South African Statements of Generally Accepted Accounting Practice, and the Companies Act of South Africa. The financial statements have been prepared on the historical cost basis except for certain properties and financial instruments that are measured at revalued amounts or fair values, as explained in the accounting policies below. Historical cost is generally based on the fair value of the consideration given in exchange for assets.

These accounting policies are consistent with the previous period.

The principal accounting policies are set out below.

1.1 Consolidation

Basis of Consolidation

The consolidated annual financial statements incorporate the annual financial statements of the Company and all entities, including special purpose entities, which are controlled by the Company.

Control is achieved where the Company has the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities.

Income and expenses of subsidiaries acquired or disposed of during the year are included in the consolidated statement of comprehensive income from the effective date of acquisition and up to the effective date of disposal, as appropriate. Total comprehensive income of subsidiaries is attributed to the owners of the Company and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

Where necessary, adjustments are made to the annual financial statements of subsidiaries to bring their accounting policies in line with those of the Group.

All intra-group transactions, balances, income and expenses are eliminated in full on consolidation.

Non-controlling interests in the net assets of consolidated subsidiaries are identified and recognised separately from the Group's interest therein, and are recognised within equity.

Changes in the Group's ownership interests in subsidiaries that do not

result in the Group losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Group's interests and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognised directly in equity and attributed to owners of the Company.

When the Group loses control of a subsidiary, the profit or loss on disposal is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets (including goodwill), and liabilities of the subsidiary and any non-controlling interests. When assets of the subsidiary are carried at revalued amounts or fair values and the related cumulative gain or loss has been recognised in other comprehensive income and accumulated in equity, the amounts previously recognised in other comprehensive income and accumulated in equity are accounted for as if the Company had directly disposed of the relevant assets (i.e. reclassified to profit or loss or transferred directly to retained earnings as specified by applicable IFRSs). The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under IAS 39 Financial Instruments: Recognition and Measurement or, when applicable, the cost on initial recognition of an investment in an associate or a jointly controlled entity. Where a subsidiary is disposed of and a non-controlling shareholding is retained, the remaining investment is measured to fair value with the adjustment to fair value recognised in profit or loss as part of the gain or loss on disposal of the controlling interest.

Business Combinations

Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquisition and the equity interests issued by the Group in exchange for control of the acquiree. Acquisition related costs are generally recognised in profit or loss as incurred.

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognised at their fair value at the acquisition date, except that:

- deferred tax assets or liabilities and liabilities or assets related to employee benefit arrangements are recognised and measured in accordance with IAS 12 Income Taxes and IAS 19 Employee Benefits respectively;
- liabilities or equity instruments related to share-based payment arrangements of the acquiree or share-based payment arrangements of the Group entered into to replace share-based payment arrangements of the acquiree are measured in accordance with IFRS 2 Share-based Payment at the acquisition date (see 3.16.2); and
- assets (or disposal groups) that are classified as held-for-sale in accordance with IFRS 5 Non-current Assets Held-for-Sale and Discontinued Operations are measured in accordance with that Standard.

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net of the acquisition date amounts of the identifiable assets acquired and the liabilities assumed. If, after reassessment, the net of the acquisition date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquirer's previously held interest in the acquiree (if any), the excess is recognised immediately in profit or loss as a bargain purchase gain.

Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the entity's net assets in the event of liquidation may be initially measured either at fair value or at the non-controlling interests' proportionate share of the recognised amounts of the acquiree's identifiable net assets. The choice of measurement basis is made on a transaction by transaction basis. Other types of non-controlling interests are measured at fair value or, when applicable, on the basis specified in another IFRS.

When the consideration transferred by the Group in a business combination includes assets or liabilities resulting from a contingent consideration arrangement, the contingent consideration is measured at its acquisition date fair value and included as part of the consideration transferred in a business combination. Changes in the fair value of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with corresponding adjustments against goodwill. Measurement period adjustments are adjustments that arise from additional information obtained during the measurement period' (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

The subsequent accounting for changes in the fair value of the contingent consideration that do not qualify as measurement period adjustments depends on how the contingent consideration is classified. Contingent consideration that is classified as equity is not re-measured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Contingent consideration that is classified as an asset or a liability is re-measured at subsequent reporting dates in accordance with IAS 39, or IAS 37 Provisions, Contingent Liabilities and Contingent Assets, as appropriate, with the corresponding gain or loss being recognised in profit or loss.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is re-measured to fair value at the acquisition date (i.e. the date when the Group obtains control) and the resulting gain or loss, if any, is recognised in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in other comprehensive income are reclassified to profit or loss where such treatment would be appropriate if that interest were disposed of.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see above), or additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

Business combinations that took place prior to 1 January 2010 were accounted for in accordance with the previous version of IFRS 3.

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognised at their fair value at the acquisition date, except that:

- deferred tax assets or liabilities and liabilities or assets related to employee benefit arrangements are recognised and measured in accordance with IAS 12 Income Taxes and IAS 19 Employee Benefits respectively;
- assets (or disposal groups) that are classified as held-for-sale in accordance with IFRS 5 Non-current Assets Held-for-Sale and Discontinued Operations are measured in accordance with that Standard.

Goodwill is measured as the excess of the sum of the consideration

Accounting Policies (continued)

transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net of the acquisition date amounts of the identifiable assets acquired and the liabilities assumed. If, after reassessment, the net of the acquisition date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquirer's previously held interest in the acquiree (if any), the excess is recognised immediately in profit or loss as a bargain purchase gain.

Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the entity's net assets in the event of liquidation may be initially measured either at fair value or at the non-controlling interests' proportionate share of the recognised amounts of the acquiree's identifiable net assets. The choice of measurement basis is made on a transaction by transaction basis. Other types of non-controlling interests are measured at fair value or, when applicable, on the basis specified in another IFRS.

When the consideration transferred by the Group in a business combination includes assets or liabilities resulting from a contingent consideration arrangement, the contingent consideration is measured at its acquisition date fair value and included as part of the consideration transferred in a business combination. Changes in the fair value of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with corresponding adjustments against goodwill. Measurement period adjustments are adjustments that arise from additional information obtained during the 'measurement period' (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

The subsequent accounting for changes in the fair value of the contingent consideration that do not qualify as measurement period adjustments depends on how the contingent consideration is classified. Contingent consideration that is classified as equity is not re-measured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Contingent consideration that is classified as an asset or a liability is re-measured at subsequent reporting dates in accordance with IAS 39, or IAS 37 Provisions, Contingent Liabilities and Contingent Assets, as appropriate, with the corresponding gain or loss being recognised in profit or loss.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to fair

value at the acquisition date (i.e. the date when the Group obtains control) and the resulting gain or loss, if any, is recognised in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in other comprehensive income are reclassified to profit or loss where such treatment would be appropriate if that interest were disposed of.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see above), or additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

Business combinations that took place prior to 1 January 2010 were accounted for in accordance with the previous version of IFRS 3.

Investment in Associates

An associate is an entity over which the Group has significant influence and which is neither a subsidiary nor a joint venture. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

The results and assets and liabilities of associates are incorporated in these consolidated financial statements using the equity method of accounting, except when the investment is classified as held-for-sale, in which case it is accounted for in accordance with IFRS 5 Non-current Assets Held-for-Sale and Discontinued Operations. Under the equity method, an investment in an associate is initially recognised in the consolidated statement of financial position at cost and adjusted thereafter to recognise the Group's share of the profit or loss and other comprehensive income of the associate. When the Group's share of losses of an associate exceeds the Group's interest in that associate (which includes any long term interests that, in substance, forms part of the Group's net investment in the associate), the Group discontinues recognising its share of further losses. Additional losses are recognised only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate.

Any excess of the cost of acquisition over the Group's share of the net fair value of the identifiable assets, liabilities and contingent liabilities of an associate recognised at the date of acquisition is recognised as

goodwill, which is included in the carrying amount of the investment. Any excess of the Group's share of the net fair value of the identifiable assets, liabilities and contingent liabilities over the cost of acquisition, after reassessment, is recognised immediately in profit or loss.

The requirements of IAS 39 are applied to determine whether it is necessary to recognise any impairment loss with respect to the Group's investment in an associate. When necessary, the entire carrying amount of the investment (including goodwill) is tested for impairment in accordance with IAS 36 Impairment of Assets as a single asset by comparing its recoverable amount (higher of value in use and fair value less costs to sell) with its carrying amount. Any impairment loss recognised forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognised in accordance with IAS 36 to the extent that the recoverable amount of the investment subsequently increases.

When a Group entity transacts with its associate, profits and losses resulting from the transactions with the associate are recognised in the Group's consolidated financial statements only to the extent of interests in the associate that are not related to the Group.

When the Group reduces its level of significant influence or loses significant influence, the Group proportionately reclassifies the related items which were previously accumulated in equity through other comprehensive income to profit or loss as a reclassification adjustment. In such cases, if an investment remains, that investment is measured at fair value, with the fair value adjustment being recognised in profit or loss as part of the gain or loss on disposal.

1.2 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. The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods. Significant judgements include:

Trade Receivables, Held-to-Maturity Investments and Loans and Receivables

The Group assesses its trade receivables, held-to-maturity investments and loans and receivables for impairment at the end of each reporting period. In determining whether an impairment loss should be recorded in profit or loss, the Group makes judgements as to whether there is observable data indicating a measurable decrease in the estimated future cash flows from a financial asset.

The impairment for trade receivables, held-to-maturity investments and loans and receivables is calculated on a portfolio basis, based on historical loss ratios, adjusted for national and industry specific economic conditions and other indicators present at the reporting date that correlate with defaults on the portfolio. These annual loss ratios are applied to loan balances in the portfolio and scaled to the estimated loss emergence period.

Available-for-Sale Financial Assets

The Group follows the guidance of IAS 39 to determine when an available-for-sale financial asset is impaired. This determination requires significant judgment. In making this judgment, the Group evaluates, among other factors, the duration and extent to which the fair value of an investment is less than its cost; and the financial health of and near term business outlook for the investee, including factors such as industry and sector performance, changes in technology and operational and financing cash flow.

Allowance for Slow Moving, Damaged and Obsolete Stock

An allowance for stock to write stock down to the lower of cost or net realisable value. Management have made estimates of the selling price and direct cost to sell on certain inventory items. The write down is included in the operating profit note.

Fair Value Estimation

The fair value of financial instruments traded in active markets (such as trading and available-for-sale securities) is based on quoted market prices at the end of the reporting period. The quoted market price used for financial assets held by the Group is the current bid price.

The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. The Group uses a variety of methods and makes assumptions that are based on

Accounting Policies (continued)

market conditions existing at the end of each reporting period. Other techniques, such as estimated discounted cash flows, are used to determine fair value for the remaining financial instruments. The fair value of forward foreign exchange contracts is determined using quoted forward exchange rates at the end of the reporting period.

The carrying value less impairment provision of trade receivables and payables are assumed to approximate their fair values. The fair value of financial liabilities for disclosure purposes is estimated by discounting the future contractual cash flows at the current market interest rate that is available to the Group for similar financial instruments.

Impairment Testing

The recoverable amounts of cash generating units and individual assets have been determined based on the higher of value in use calculations and fair values less costs to sell. These calculations require the use of estimates and assumptions. It is reasonably possible that an assumption may change which may then impact our estimations and may then require a material adjustment to the carrying value of goodwill and tangible assets.

The Group reviews and tests the carrying value of assets when events or changes in circumstances suggest that the carrying amount may not be recoverable. In addition, goodwill is tested on an annual basis for impairment. Assets are grouped at the lowest level for which identifiable cash flows are largely independent of cash flows of other assets and liabilities. If there are indications that impairment may have occurred, estimates are prepared of expected future cash flows for each group of assets. Expected future cash flows used to determine the value in use of goodwill and tangible assets are inherently uncertain and could materially change over time.

Provisions

Provisions were raised and management determined an estimate based on the information available. Additional disclosure of these estimates of provisions are included in Note 27 – Provisions.

Taxation

Judgement is required in determining the provision for income taxes due to the complexity of legislation. There are many transactions and calculations for which the ultimate tax determination is uncertain during the ordinary course of business. The Group recognises liabilities for anticipated tax audit issues based on estimates of whether

additional taxes will be due. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact the income tax and deferred tax provisions in the period in which such determination is made.

The Group recognises the net future tax benefit related to deferred income tax assets to the extent that it is probable that the deductible temporary differences will reverse in the foreseeable future. Assessing the recoverability of deferred income tax assets requires the Group to make significant estimates related to expectations of future taxable income. Estimates of future taxable income are based on forecast cash flows from operations and the application of existing tax laws in each jurisdiction. To the extent that future cash flows and taxable income differ significantly from estimates, the ability of the Group to realise the net deferred tax assets recorded at the end of the reporting period could be impacted.

Property, Plant and Equipment

The useful lives of assets are based on management's estimation. Management considers the following factors to determine the optimum useful life expectation for each of the individual items of property, plant and equipment.

- Expected usage of the asset. Usage is assessed by reference to the assets expected capacity or physical output;
- Expected physical wear and tear, which depends on operational factors such as the number of shifts for which the asset is to be used and the repair and maintenance programme, and the care and maintenance of the asset while idle;
- Technical or commercial obsolescence arising from changes or improvement in production or from a change in the market demand for the product or service output of the asset; and
- Exit policy of the Company.

The estimation of residual value of assets is also based on management's judgement that the assets will be sold and what its condition will be like at the end of its useful life. For assets that incorporate both a tangible and intangible portion, management uses judgement to assess which element is more significant to determine whether it should be treated as property, plant and equipment or intangible assets.

Post-retirement Benefit Obligation

Judgement is required when recognising and measuring the retirement

benefit obligation of the Group and the Company. The obligation is valued by an independent actuary at each reporting date. The actuarial valuation method is used to value the obligation and the projected unit credit method is used. Future benefit values are projected using specific actuarial assumptions and the liability to in service members is accrued over the expected working lifetime.

1.3 Investment Property

Investment properties are properties held to earn rentals and/or for capital appreciation (including property under construction for such purposes).

Investment property is recognised as an asset when, and only when, it is probable that the future economic benefits that are associated with the investment property will flow to the enterprise, and the cost of the investment property can be measured reliably.

Investment property is initially recognised at cost. Transaction costs are included in the initial measurement.

Costs include costs incurred initially and costs incurred subsequently to add to, or to replace a part of, or service a property. If a replacement part is recognised in the carrying amount of the investment property, the carrying amount of the replaced part is derecognised.

Fair Value

Subsequent to initial measurement investment property is measured at fair value.

A gain or loss arising from a change in fair value is included in net profit or loss of the period in which it arises.

An investment property is derecognised upon disposal or when the investment property is permanently withdrawn from use and no future economic benefits are expected from the disposal. Any gain or loss arising on derecognition of the property (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in profit or loss in the period in which the property is derecognised.

1.4 Property, Plant and Equipment

The cost of an item of property, plant and equipment is recognised as an asset when:

- it is probable that future economic benefits associated with the item will flow to the Company; and
- the cost of the item can be measured reliably.

Property, plant and equipment is initially measured at cost.

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.

Plant and equipment are stated at cost less accumulated depreciation and any impairment losses.

Land and buildings is carried at its revalued amount, being the fair value at the date of revaluation less any subsequent accumulated depreciation and subsequent accumulated impairment losses.

Revaluations are performed with sufficient regularity such that the carrying amount does not differ materially from that which would be determined using fair value at the end of the reporting period.

When an item of property, plant and equipment is revalued, any accumulated depreciation at the date of the revaluation is eliminated against the gross carrying amount of the asset and the net amount restated to the revalued amount of the asset.

Any increase in an asset's carrying amount, as a result of a revaluation, is recognised to other comprehensive income and accumulated in the revaluation surplus in equity. The increase is recognised in profit or loss to the extent that it reverses a revaluation decrease of the same asset previously recognised in profit or loss.

Any decrease in an asset's carrying amount, as a result of a revaluation, is recognised in profit or loss in the current period. The decrease is recognised in other comprehensive income to the extent of any credit balance existing in the revaluation surplus in respect of that asset. The decrease recognised in other comprehensive income reduces the amount accumulated in the revaluation surplus in equity.

Accounting Policies (continued)

The revaluation surplus in equity related to a specific item of property, plant and equipment is transferred directly to retained earnings as the asset is used. The amount transferred is equal to the difference between depreciation based on the revalued carrying amount and depreciation based on the original cost of the asset.

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

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

Item	Range of useful life
Land	Indefinite
Buildings	10–50 years
Plant and machinery	5–50 years
Furniture and fixtures	2–22 years
Motor vehicles	2–26 years
Office equipment	2–22 years
IT equipment	2–22 years
Research facilities	2–22 years
Leasehold improvements	2–10 years
Machinery and equipment	2–22 years
Component spares	2–10 years

The residual value, useful life and depreciation method of each asset are reviewed at the end of each reporting period. If the expectations differ from previous estimates, the change is accounted for as a change in accounting estimate.

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

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected to arise from the continued use of the asset.

The gain or loss arising from the derecognition of an item of property, plant and equipment is included in profit or loss 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.

1.5 Intangible Assets

An intangible asset is recognised when:

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

Intangible assets are initially recognised at cost.

Internally Generated Intangible Assets – Research and Development Expenditure

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

An intangible asset arising from development (or from the development phase of an internal project) is recognised when all of the following have been demonstrated:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale.
- the intention to complete the intangible asset and use or sell it.
- the ability to use or sell the intangible asset.
- it will generate probable future economic benefits.
- how the intangible asset will generate probable future economic benefits.
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset.
- the ability to measure reliably the expenditure attributable to the intangible asset during its development.

The amount initially recognised for internally generated intangible assets is the sum of the expenditure incurred from the date when the intangible asset first meets the recognition criteria listed above. Where no internally generated intangible asset can be recognised, development expenditure is recognised in profit or loss in the period in which it is incurred.

Subsequent to initial recognition, internally generated intangible assets are reported at cost less accumulated amortisation and accumulated impairment losses, on the same basis as intangible assets that are acquired separately.

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. 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 the end of each reporting period.

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 amortised over its useful life.

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

1.6 Investments in Subsidiaries

Company Annual Financial Statements

In the Company's separate annual financial statements, investments in subsidiaries are carried at cost less any accumulated impairment.

The cost of an investment in a subsidiary is the aggregate of:

- the fair value, at the date of exchange, of assets given, liabilities incurred or assumed, and equity instruments issued by the Company; plus
- any costs directly attributable to the purchase of the subsidiary.

1.7 Investments in Associates

Company Annual Financial Statements

An investment in an associate is carried at cost less any accumulated impairment.

1.8 Financial Instruments

Classification

The Group classifies financial assets and financial liabilities into the following categories:

- Financial assets at fair value through profit or loss – held-for-trading;
- Held-to-maturity investment;
- Loans and receivables;
- Available-for-sale financial assets;
- Financial liabilities at fair value through profit or loss – held-for-trading; and
- Financial liabilities measured at amortised cost.

Classification depends on the purpose for which the financial instruments were obtained/incurred and takes place at initial recognition. Classification is re-assessed on an annual basis, except for derivatives and financial assets designated as at fair value through profit or loss, which shall not be classified out of the fair value through profit or loss category.

Initial Recognition and Measurement

Financial instruments are recognised initially when the Group becomes a party to the contractual provisions of the instruments.

The Group classifies financial instruments, or their component parts, on initial recognition as a financial asset, a financial liability or an equity instrument in accordance with the substance of the contractual arrangement.

Financial instruments are measured initially at fair value, except for equity investments for which a fair value is not determinable, which are measured at cost and are classified as available-for-sale financial assets.

For financial instruments which are not at fair value through profit or loss, transaction costs are included in the initial measurement of the instrument.

Transaction costs on financial instruments at fair value through profit or loss are recognised in profit or loss.

Regular purchases and sales of investments are recognised on trade date, i.e. the date on which the Group commits to purchase or sell the asset.

Subsequent Measurement

Financial instruments at fair value through profit or loss are subsequently measured at fair value, with gains and losses arising from changes in fair value being included in profit or loss for the period.

Accounting Policies (continued)

Net gains or losses on the financial instruments at fair value through profit or loss exclude dividends and interest.

Dividend income is recognised in profit or loss as part of other income when the Group's right to receive payment is established.

Loans and receivables are subsequently measured at amortised cost, using the effective interest method, less accumulated impairment losses.

Held-to-maturity investments are subsequently measured at amortised cost, using the effective interest method, less accumulated impairment losses.

Available-for-sale financial assets are subsequently measured at fair value. This excludes equity investments for which a fair value is not determinable, which are measured at cost less accumulated impairment losses.

Gains and losses arising from changes in fair value are recognised in other comprehensive income and accumulated in equity until the asset is disposed of or determined to be impaired. Interest on available-for-sale financial assets calculated using the effective interest method is recognised in profit or loss as part of other income. Dividends received on available-for-sale equity instruments are recognised in profit or loss as part of other income when the Group's right to receive payment is established.

Changes in fair value of available-for-sale financial assets denominated in a foreign currency are analysed between translation differences resulting from changes in amortised cost and other changes in the carrying amount. Translation differences on monetary items are recognised in profit or loss, while translation differences on non-monetary items are recognised in other comprehensive income and accumulated in equity.

Financial liabilities at amortised cost are subsequently measured at amortised cost, using the effective interest method.

Fair Value Determination

The fair values of quoted investments are based on current bid prices. If the market for a financial asset is not active (and for unlisted securities), the Group establishes fair value by using valuation techniques. These include the use of recent arm's length transactions, reference to other instruments that are substantially the same,

discounted cash flow analysis, and option pricing models making maximum use of market inputs and relying as little as possible on entity specific inputs.

Impairment of Financial Assets

At each reporting date the Group assesses all financial assets, other than those at fair value through profit or loss, to determine whether there is objective evidence that a financial asset or group of financial assets has been impaired.

Financial assets are considered to be impaired when there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the investment have been affected.

For amounts due to the Group, significant financial difficulties of the debtor, probability that the debtor will enter bankruptcy and default of payments are all considered indicators of impairment.

In the case of equity securities classified as available-for-sale, a significant or prolonged decline in the fair value of the security below its cost is considered an indicator of impairment. For all other financial assets, objective evidence of impairment could include:

- significant financial difficulty of the issuer or counterparty;
- breach of contract, such as a default or delinquency in interest or principal payments;
- it becoming probable that the borrower will enter bankruptcy or financial re-organisation; or
- the disappearance of an active market for that financial asset because of financial difficulties.

For financial assets carried at amortised cost, the amount of the impairment loss recognised is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the financial asset's original effective interest rate.

For financial assets carried at cost, the amount of the impairment loss is measured as the difference between the asset's carrying amount and the present value of the estimated future cash flows discounted at the current market rate of return for a similar financial asset. Such impairment loss will not be reversed in subsequent periods.

The carrying amount of the financial asset is reduced by the impairment loss directly for all financial assets with the exception of trade

receivables, where the carrying amount is reduced through the use of an allowance account. When a trade receivable is considered uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against the allowance account. Changes in the carrying amount of the allowance account are recognised in profit or loss

When an available-for-sale financial asset is considered to be impaired, cumulative gains or losses previously recognised in other comprehensive income are reclassified to profit or loss in the period.

For financial assets measured at amortised cost, if, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised, the previously recognised impairment loss is reversed through profit or loss to the extent that the carrying amount of the investment at the date the impairment is reversed does not exceed what the amortised cost would have been had the impairment not been recognised.

In respect of available-for-sale equity securities, impairment losses previously recognised in profit or loss are not reversed through profit or loss. Any increase in fair value subsequent to an impairment loss is recognised in other comprehensive income and accumulated under the heading of investments revaluation reserve. In respect of available-for-sale debt securities, impairment losses are subsequently reversed through profit or loss if an increase in the fair value of the investment can be objectively related to an event occurring after the recognition of the impairment loss.

The Group derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. If the Group neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Group recognises its retained interest in the asset and an associated liability for amounts it may have to pay. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognise the financial asset and also recognises a collateralised borrowing for the proceeds received.

On derecognition of a financial asset in its entirety, the difference between the asset's carrying amount and the sum of the consideration received and receivable and the cumulative gain or loss that had been recognised in other comprehensive income and accumulated in equity is recognised in profit or loss.

On derecognition of a financial asset other than in its entirety (e.g. when the Group retains an option to repurchase part of a transferred asset or retains a residual interest that does not result in the retention of substantially all the risks and rewards of ownership and the Group retains control), the Group allocates the previous carrying amount of the financial asset between the part it continues to recognise under continuing involvement, and the part it no longer recognises on the basis of the relative fair values of those parts on the date of the transfer. The difference between the carrying amount allocated to the part that is no longer recognised and the sum of the consideration received for the part no longer recognised and any cumulative gain or loss allocated to it that had been recognised in other comprehensive income is recognised in profit or loss. A cumulative gain or loss that had been recognised in other comprehensive income is allocated between the part that continues to be recognised and the part that is no longer recognised on the basis of the relative fair values of those parts.

Financial Instruments Designated as at Fair Value Through Profit or Loss

These are financial assets held-for-trading. A financial asset is classified in this category if acquired principally for the purpose of selling in the short-term. Assets in this category are classified as current assets if they are either held-for-trading or are expected to be realised within 12 months of the balance sheet date.

Gains or losses arising from changes in the fair value of the 'financial assets at fair value through profit or loss' category, are presented in the income statement in the period in which they arise. Dividend income from financial assets at fair value through profit or loss is recognised in the income statement as part of other income when the Group's right to receive payment is established.

Financial Instruments Designated as Available-for-Sale

Available-for-sale financial assets are non-derivatives that are either designated in this category or not classified in any of the other categories. They are included in non-current assets unless management intends to dispose of the investment within 12 months of the balance sheet date.

Changes in the fair value of monetary securities classified as available-for-sale and non-monetary securities classified as available-for-sale are recognised in equity.

When securities classified as available-for-sale are sold or impaired, the accumulated fair value adjustments recognised in equity are included in

Accounting Policies (continued)

the income statement as 'gains and losses from investment securities'. Interest on available-for-sale securities calculated using the effective interest method is recognised in the income statement. Dividends on available-for-sale equity instruments are recognised in the income statement when the Group's right to receive payments is established.

Loans to/(from) Group Companies

These include loans to and from holding companies, fellow subsidiaries, subsidiaries, joint ventures and associates and are recognised initially at fair value plus direct transaction costs.

Loans to Group Companies are classified as loans and receivables. Loans from Group Companies are classified as financial liabilities measured at amortised cost.

Loans to Shareholders, Directors, Managers and Employees

These financial assets are classified as loans and receivables.

Trade and other Receivables

Trade receivables are measured at initial recognition at fair value, and are subsequently measured at amortised cost using the effective interest rate method. Appropriate allowances for estimated irrecoverable amounts are recognised in profit or loss when there is objective evidence that the asset is impaired. Significant financial difficulties of the debtor, probability that the debtor will enter bankruptcy or financial reorganisation, and default or delinquency in payments (more than 30 days overdue) are considered indicators that the trade receivable is impaired. The allowance recognised is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the effective interest rate computed at initial recognition.

The carrying amount of the asset is reduced through the use of an allowance account, and the amount of the loss is recognised in profit or loss within operating expenses. When a trade receivable is uncollectable, it is written off against the allowance account for trade receivables. Subsequent recoveries of amounts previously written off are credited against operating expenses in profit or loss.

Trade and other receivables are classified as loans and receivables.

Trade and other Payables

Trade payables are initially measured at fair value, and are subsequently measured at amortised cost, using the effective interest rate method.

Cash and Cash Equivalents

Cash and cash equivalents comprise cash on hand and demand deposits, 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. These are initially and subsequently recorded at fair value.

Bank Overdraft and Borrowings

Bank overdrafts and borrowings are initially measured at fair value, and are subsequently measured at amortised cost, using the effective interest rate method. Any difference between the proceeds (net of transaction costs) and the settlement or redemption of borrowings is recognised over the term of the borrowings in accordance with the Group's accounting policy for borrowing costs.

Derivatives

Derivative financial instruments, which are not designated as hedging instruments, consisting of foreign exchange contracts and interest rate swaps, are initially measured at fair value on the contract date, and are re-measured to fair value at subsequent reporting dates.

Derivatives embedded in other financial instruments or other non-financial host contracts are treated as separate derivatives when their risks and characteristics are not closely related to those of the host contract and the host contract is not carried at fair value with unrealised gains or losses reported in profit or loss.

Changes in the fair value of derivative financial instruments are recognised in profit or loss as they arise.

Derivatives are classified as financial assets at fair value through profit or loss – held-for-trading.

Hedging Activities

Designated and effective hedging instruments are excluded from the definition of financial instruments at fair value through profit or loss.

The Group designates certain derivatives as either:

- hedges of the fair value of recognised assets or liabilities or a firm commitment (fair value hedge)
- hedges of a particular risk associated with a recognised asset or liability or a highly probable forecast transaction (cash flow hedge);
- hedges of a net investment in a foreign operation (net investment hedge).

The Group documents at the inception of the transaction the relationship between hedging instruments and hedged items, as well as its risk management objectives and strategy for undertaking various hedging transactions. The Group also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items.

The full fair value of a hedging derivative is classified as a non-current asset or liability when the remaining hedged item is more than 12 months, and as a current asset or liability when the remaining maturity of the hedged item is less than 12 months.

Fair Value Hedge

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recorded in profit or loss, together with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk.

If the hedge no longer meets the criteria for hedge accounting, the adjustment to the carrying amount of a hedged item for which the effective interest method is used is amortised to profit or loss over the period to maturity.

1.9 Tax

Current Tax Assets and Liabilities

Current tax for current and prior periods is, to the extent unpaid, recognised as a liability. If the amount already paid in respect of current and prior periods exceeds the amount due for those periods, the excess is recognised as an asset.

Current tax liabilities/(assets) for the current and prior periods are measured at the amount expected to be paid to/(recovered from) the tax authorities, using the tax rates (and tax laws) that have been enacted or

substantively enacted by the end of the reporting period.

The tax currently payable is based on taxable profit for the year. Taxable profit differs from profit as reported in the consolidated [statement of comprehensive income/income statement] because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the end of the reporting period.

Deferred Tax Assets and Liabilities

A deferred tax liability is recognised for all taxable temporary differences, except to the extent that the deferred tax liability arises from:

- the initial recognition of goodwill; or
- the initial recognition of an asset or liability in a transaction which:
 - is not a business combination; and
 - at the time of the transaction, affects neither accounting profit nor taxable profit (tax loss).

A deferred tax liability is recognised for all taxable temporary differences associated with investments in subsidiaries, branches and associates, and interests in joint ventures, except to the extent that both of the following conditions are satisfied:

- the parent, investor or venturer is able to control the timing of the reversal of the temporary difference; and
- it is probable that the temporary difference will not reverse in the foreseeable future.

A deferred tax asset is recognised for all deductible temporary differences to the extent that it is probable that taxable profit will be available against which the deductible temporary difference can be utilised, unless the deferred tax asset arises from the initial recognition of an asset or liability in a transaction that:

- is not a business combination; and
- at the time of the transaction, affects neither accounting profit nor taxable profit (tax loss).

A deferred tax asset is recognised for all deductible temporary differences arising from investments in subsidiaries, branches and associates, and interests in joint ventures, to the extent that it is probable that:

Accounting Policies (continued)

- the temporary difference will reverse in the foreseeable future; and
- taxable profit will be available against which the temporary difference can be utilised.

A deferred tax asset is recognised for the carry forward of unused tax losses and unused STC credits to the extent that it is probable that future taxable profit will be available against which the unused tax losses and unused STC credits can be utilised.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

1.10 Leases

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

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 of on the remaining balance of the liability.

Operating Leases – Lessor

Operating lease income is recognised as an income on a straight line basis over the lease term.

Initial direct costs incurred in negotiating and arranging operating leases are added to the carrying amount of the leased asset and recognised as an expense over the lease term on the same basis as the lease income.

Income for leases is disclosed under revenue in profit or loss.

Operating Leases – Lessee

Operating lease payments are recognised as an expense on a straight line basis over the lease term except when another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed. The difference between the amounts recognised as an expense and the contractual payments are recognised as an operating lease asset. This liability is not discounted.

In the event that lease incentives are received to enter into operating leases, such incentives are recognised as a liability. The aggregate benefit of incentives is recognised as a reduction of rental expense on a straight line basis, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed.

Any contingent rents are expensed in the period they are incurred.

1.11 Inventories

Inventories are measured at the lower of cost and net realisable value on the first in first out basis.

Net realisable value represents the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

The cost of inventories comprises all costs of purchase, costs of conversion and other costs incurred in bringing the inventories to their present location and condition.

The cost of inventories of items that are not ordinarily inter-changeable and goods or services produced and segregated for specific projects is assigned using specific identification of the individual costs.

The cost of inventories is assigned using the weighted average cost formula. The same cost formula is used for all inventories having a similar nature and use to the entity.

When inventories are sold, the carrying amount of those inventories are recognised as an expense in the period in which the related revenue is recognised. The amount of any write down of inventories to net realisable value and all losses of inventories are recognised as an expense in the period the write down or loss occurs. The amount of any reversal of any write down of inventories, arising from an increase in net realisable value, are recognised as a reduction in the amount of inventories recognised as an expense in the period in which the reversal occurs.

1.12 Non-current Assets Held-for-Sale

Non-current assets and disposal groups are classified as held-for-sale if their carrying amount will be recovered through a sale transaction rather than through continuing use. This condition is regarded as met only when the sale is highly probable and the asset (or disposal group) is available for immediate sale in its present condition. Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

Non-current assets held-for-sale (or disposal group) are measured at the lower of its previous carrying amount and fair value less costs to sell.

A non-current asset is not depreciated (or amortised) while it is classified as held-for-sale, or while it is part of a disposal group classified as held-for-sale.

Interest and other expenses attributable to the liabilities of a disposal group classified as held-for-sale are recognised in profit or loss.

1.13 Impairment of Tangible and Intangible Assets other than Goodwill

The Group assesses at each end of the reporting period whether there is any indication that an asset may be impaired. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any).

Irrespective of whether there is any indication of impairment, the Group also:

- tests intangible assets with an indefinite useful life or intangible assets not yet available for use annually for impairment by comparing its carrying amount with its recoverable amount. This impairment test is performed during the annual period and at the same time every period; and
- tests goodwill acquired in a business combination annually for impairment.

If it is not possible to estimate the recoverable amount of the individual asset, the recoverable amount of the cash generating unit to which the asset belongs is determined.

The recoverable amount of an asset or a cash generating unit is the higher of its fair value less costs to sell and its value in use.

In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset is less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount.

An impairment loss of assets carried at cost less any accumulated depreciation or amortisation is recognised immediately in profit or loss. Any impairment loss of a revalued asset is treated as a revaluation decrease.

Goodwill acquired in a business combination is, from the acquisition date, allocated to each of the cash generating units, or groups of cash generating units, that are expected to benefit from the synergies of the combination.

An impairment loss is recognised for cash generating units if the recoverable amount of the unit is less than the carrying amount of the units. The impairment loss is allocated to reduce the carrying amount of the assets of the unit in the following order:

- first, to reduce the carrying amount of any goodwill allocated to the cash generating unit and
- then, to the other assets of the unit, pro rata on the basis of the carrying amount of each asset in the unit.

An entity assesses at each reporting date whether there is any indication that an impairment loss recognised in prior periods for assets

Accounting Policies (continued)

other than goodwill may no longer exist or may have decreased. If any such indication exists, the recoverable amounts of those assets are estimated.

The increased carrying amount of an asset other than goodwill 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 asset in prior periods.

A reversal of an impairment loss of assets carried at cost less accumulated depreciation or amortisation other than goodwill is recognised immediately in profit or loss. Any reversal of an impairment loss of a revalued asset is treated as a revaluation increase.

1.14 Share Capital and Equity

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities.

1.15 Employee Benefits

Short-term Employee Benefits

The cost of short-term employee benefits, (those payable within 12 months after the service is rendered, such as paid vacation leave and sick leave, bonuses, and non-monetary benefits such as medical care), are recognised in the period in which the service is rendered and are not discounted.

The expected cost of compensated absences is recognised as an expense as the employees render services that increase their entitlement or, in the case of non-accumulating absences, when the absence occurs.

The expected cost of profit sharing and bonus payments is recognised as an expense when there is a legal or constructive obligation to make such payments as a result of past performance.

Defined Contribution Plans

Group Companies operate a provident fund on behalf of its employees. The schemes are generally funded through payments to insurance companies or trustee administered funds, determined by periodic actuarial calculations. A defined contribution plan is a plan under which the Group pays fixed contributions into a separate entity. The Group has no legal or constructive obligations to pay further contributions if the

fund does not hold sufficient assets to pay all employees the benefit relating to employee service in the current and prior periods.

Payments to defined contribution retirement benefit plans are charged as an expense as they fall due. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in the future payments is available.

Defined Benefit Plans

Some Group Companies provide post-retirement health care benefits to their retirees. The entitlement to these benefits is usually conditional on the employee remaining in service up to retirement age and the completion of a minimum service period. For defined benefit plans the cost of providing the benefits is determined using the projected unit credit method.

Actuarial valuations are conducted on an annual basis by independent actuaries.

Consideration is given to any event that could impact the funds up to the end of the reporting period where the interim valuation is performed at an earlier date.

Past service costs are recognised immediately to the extent that the benefits are already vested, and are otherwise amortised on a straight line basis over the average period until the amended benefits become vested.

Actuarial gains and losses are recognised in the year in which they arise, in other comprehensive income.

Gains or losses on the curtailment or settlement of a defined benefit plan is recognised when the Group is demonstrably committed to curtailment or settlement.

When it is virtually certain that another party will reimburse some or all of the expenditure required to settle a defined benefit obligation, the right to reimbursement is recognised as a separate asset. The asset is measured at fair value. In all other respects, the asset is treated in the same way as plan assets. In profit or loss, the expense relating to a defined benefit plan is presented as the net of the amount recognised for a reimbursement.

The amount recognised in the statement of financial position represents the present value of the defined benefit obligation as adjusted for

unrecognised actuarial gains and losses and unrecognised past service costs, and reduces by the fair value of plan assets.

Any asset is limited to unrecognised actuarial losses and past service costs, plus the present value of available refunds and reduction in future contributions to the plan.

1.16 Provisions and Contingencies

Provisions are recognised when:

- the Group has a present obligation as a result of a past event;
- it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation; and
- a reliable estimate can be made of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows (where the effect of the time value of money is material).

Where some or all of the expenditure required to settle a provision is expected to be reimbursed by another party, the reimbursement shall be recognised when, and only when, it is virtually certain that reimbursement will be received if the entity settles the obligation. The reimbursement shall be treated as a separate asset. The amount recognised for the reimbursement shall not exceed the amount of the provision.

Provisions are not recognised for future operating losses.

Onerous Contracts

If an entity has a contract that is onerous, the present obligation under the contract shall be recognised and measured as a provision.

An onerous contract is considered to exist where the Group has a contract under which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received from the contract.

Restructurings

A constructive obligation to restructure arises only when an entity:

- has a detailed formal plan for the restructuring, identifying at least:
 - the business or part of a business concerned;
 - the principal locations affected;
 - the location, function, and approximate number of employees who will be compensated for terminating their services;
 - the expenditures that will be undertaken; and
 - when the plan will be implemented; and
- has raised a valid expectation in those affected that it will carry out the restructuring by starting to implement that plan or announcing its main features to those affected by it.

The measurement of a restructuring provision includes only the direct expenditures arising from the restructuring, which are those amounts that are both necessarily entailed by the restructuring and not associated with the ongoing activities of the entity.

Contingent Assets and Liabilities

After their initial recognition contingent liabilities recognised in business combinations that are recognised separately are subsequently measured at the higher of:

- the amount that would be recognised as a provision; and
- the amount initially recognised less cumulative amortisation.

Contingent assets and contingent liabilities are not recognised.

Contingencies are disclosed in Note 42.

1.17 Government Grants

Government grants are recognised when there is reasonable assurance that:

- the Group will comply with the conditions attaching to them; and
- the grants will be received.

Government grants are recognised as income over the periods necessary to match them with the related costs that they are intended to compensate.

Specifically, government grants whose primary condition is that the Group should purchase, construct or otherwise acquire non-current assets are recognised as deferred revenue in the consolidated statement of financial position and transferred to profit or loss on a systematic and rational basis over the useful lives of the related assets.

Accounting Policies (continued)

A government grant that becomes receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the entity with no future related costs is recognised as income of the period in which it becomes receivable.

Government grants related to assets, including non-monetary grants at fair value, are presented in the statement of financial position by setting up the grant as deferred income.

Grants related to income are presented as a credit in the profit or loss (separately).

Repayment of a grant related to income is applied first against any un-amortised deferred credit set up in respect of the grant. To the extent that the repayment exceeds any such deferred credit, or where no deferred credit exists, the repayment is recognised immediately as an expense.

Repayment of a grant related to an asset is recorded by reducing the deferred income balance by the amount repayable. The cumulative additional depreciation that would have been recognised to date as an expense in the absence of the grant is recognised immediately as an expense.

1.18 Revenue

Revenue is measured at the fair value of the consideration received or receivable. Revenue is reduced for estimated customer returns, rebates and other similar allowances.

Revenue from the sale of goods is recognised when all the following conditions have been satisfied:

- the Group has transferred to the buyer the significant risks and rewards of ownership of the goods;
- the Group retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;
- the amount of revenue can be measured reliably;
- it is probable that the economic benefits associated with the transaction will flow to the Group; and
- the costs incurred or to be incurred in respect of the transaction can be measured reliably.

When the outcome of a transaction involving the rendering of services can be estimated reliably, revenue associated with the transaction is

recognised by reference to the stage of completion of the transaction at the end of the reporting period. The outcome of a transaction can be estimated reliably when all the following conditions are satisfied:

- the amount of revenue can be measured reliably;
- it is probable that the economic benefits associated with the transaction will flow to the Group;
- the stage of completion of the transaction at the end of the reporting period can be measured reliably; and
- the costs incurred for the transaction and the costs to complete the transaction can be measured reliably.

When the outcome of the transaction involving the rendering of services cannot be estimated reliably, revenue shall be recognised only to the extent of the expenses recognised that are recoverable.

Service revenue is recognised by reference to the stage of completion of the transaction at the end of the reporting period. Stage of completion is determined by services performed to date as a percentage of total services to be performed.

Contract revenue comprises:

- the initial amount of revenue agreed in the contract; and
- variations in contract work, claims and incentive payments:
 - to the extent that it is probable that they will result in revenue; and
 - they are capable of being reliably measured.

Interest income from a financial asset is recognised when it is probable that the economic benefits will flow to the Group and the amount of income can be measured reliably. Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount on initial recognition.

Royalties are recognised on the accrual basis in accordance with the substance of the relevant agreements.

Dividends are recognised, in profit or loss, when the Company's right to receive payment has been established.

Service fees included in the price of a product are recognised as revenue over the period during which the service is performed.

1.19 Turnover

Turnover comprises sales to customers and services rendered to customers. Turnover is stated at the invoice amount and is exclusive of value added taxation.

1.20 Cost of Sales

When inventories are sold, the carrying amount of those inventories is recognised as an expense in the period in which the related revenue is recognised. The amount of any write-down of inventories to net realisable value and all losses of inventories are recognised as an expense in the period the write-down or loss occurs. The amount of any reversal of any write-down of inventories, arising from an increase in net realisable value, is recognised as a reduction in the amount of inventories recognised as an expense in the period in which the reversal occurs.

The related cost of providing services recognised as revenue in the current period is included in cost of sales.

Contract costs comprise:

- costs that relate directly to the specific contract;
- costs that are attributable to contract activity in general and can be allocated to the contract; and
- such other costs as are specifically chargeable to the customer under the terms of the contract.

1.21 Borrowing Costs

Borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale are capitalised as part of the cost of that asset until such time as the asset is ready for its intended use. The amount of borrowing costs eligible for capitalisation is determined as follows:

- Actual borrowing costs on funds specifically borrowed for the purpose of obtaining a qualifying asset less any temporary investment of those borrowings; and
- Weighted average of the borrowing costs applicable to the entity on funds generally borrowed for the purpose of obtaining a qualifying asset. The borrowing costs capitalised do not exceed the total borrowing costs incurred.

The capitalisation of borrowing costs commences when:

- expenditures for the asset have occurred;
- borrowing costs have been incurred, and
- activities that are necessary to prepare the asset for its intended use or sale are in progress.

Capitalisation is suspended during extended periods in which active development is interrupted.

Capitalisation ceases when substantially all the activities necessary to prepare the qualifying asset for its intended use or sale are complete. All other borrowing costs are recognised as an expense in the period in which they are incurred.

1.22 Translation of Foreign Currencies

Functional and Presentation Currency

Items included in the annual financial statements of each of the Group entities are measured using the currency of the primary economic environment in which the entity operates (functional currency).

The consolidated annual financial statements are presented in Rand which is the Group functional and presentation currency.

Foreign Currency Transactions

In preparing the financial statements of each individual Group entity, transactions in currencies other than the entity's functional currency (foreign currencies) are recognised at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences on monetary items are recognised in profit or loss in the period in which they arise except for:

- exchange differences on foreign currency borrowings relating to assets under construction for future productive use, which are included in the cost of those assets when they are regarded as an adjustment to interest costs on those foreign currency borrowings;

Accounting Policies (continued)

- exchange differences on transactions entered into in order to hedge certain foreign currency risks (see 3.28 below for hedging accounting policies); and
- exchange differences on monetary items receivable from or payable to a foreign operation for which settlement is neither planned nor likely to occur (therefore forming part of the net investment in the foreign operation), which are recognised initially in other comprehensive income and reclassified from equity to profit or loss on repayment of the monetary items.

Exchange differences arising on the settlement of monetary items or on translating monetary items at rates different from those at which they were translated on initial recognition during the period or in previous annual financial statements are recognised in profit or loss in the period in which they arise.

When a gain or loss on a non-monetary item is recognised to other comprehensive income and accumulated in equity, any exchange component of that gain or loss is recognised to other comprehensive income and accumulated in equity. When a gain or loss on a non-monetary item is recognised in profit or loss, any exchange component of that gain or loss is recognised in profit or loss.

Investments in Subsidiaries, Joint Ventures and Associates

For the purposes of presenting consolidated financial statements, the assets and liabilities of the Group's foreign operations are translated into Currency Units using exchange rates prevailing at the end of each reporting period. Income and expense items are translated at the average exchange rates for the period, unless exchange rates fluctuate significantly during that period, in which case the exchange rates at the dates of the transactions are used. Exchange differences arising, if any, are recognised in other comprehensive income and accumulated in equity (attributed to non-controlling interests as appropriate).

On the disposal of a foreign operation (i.e. a disposal of the Group's entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary that includes a foreign operation, a disposal involving loss of joint control over a jointly controlled entity that

includes a foreign operation, or a disposal involving loss of significant influence over an associate that includes a foreign operation), all of the exchange differences accumulated in equity in respect of that operation attributable to the owners of the Company are reclassified to profit or loss.

In the case of a partial disposal that does not result in the Group losing control over a subsidiary that includes a foreign operation, the proportionate share of accumulated exchange differences are re-attributed to non-controlling interests and are not recognised in profit or loss. For all other partial disposals (i.e. reductions in the Group's ownership interest in associates or jointly controlled entities that do not result in the Group losing significant influence or joint control), the proportionate share of the accumulated exchange differences is reclassified to profit or loss.

Goodwill and fair value adjustments on identifiable assets and liabilities acquired arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the rate of exchange prevailing at the end of each reporting period. Exchange differences arising are recognised in equity.

1.23 Related Parties

The Group operates in an economic environment currently dominated by entities directly or indirectly owned by the South African government. As a result of the constitutional independence of all three spheres of government in South Africa, only parties within the national sphere of government will be considered to be related parties.

Key management is defined as being individuals with the authority and responsibility for planning, directing and controlling the activities of the entity. All individuals from the level of CEO up to the Board of Directors are regarded as key management.

Close family members of key management personnel are considered to be those family members who may be expected to influence or be influenced by key management individuals or other parties related to the entity.

Notes to the Annual Financial Statements

for the year ended 31 March 2011

2. Changes in Accounting Policy

Revaluation of Land and Buildings

During the year, the Group changed the accounting policy from the proportionate restatement method to the elimination method with respect to the treatment of the revaluation of land and buildings.

The change provides reliable and more relevant information.

The effect of the change is applied retrospectively.

The aggregate effect of the changes in accounting policy on the annual financial statements for the year ended 31 March 2011 is as follows:

Statement of Financial Position

	Group		Company	
	2010 R'000	2009 R'000	2010 R'000	2009 R'000
Land and buildings				
Previously stated	466,101	123,666	445,119	90,607
Adjustment	(31,808)	(30,218)	(31,479)	(27,199)
	434,293	93,448	413,640	63,408
Accumulated depreciation				
Previously stated	(31,808)	(30,218)	(31,479)	(27,199)
Adjustment	31,808	30,218	31,479	27,199
	-	-	-	-
Opening retained earnings				
Previously stated	-	177,224	-	267,904
Adjustment	-	56,125	-	72,839
	-	233,349	-	340,743

Please refer to prior period error Note 45 for further adjustments to the Group 2010 balance relating to land and buildings.

Notes to the Annual Financial Statements (continued)

3. New Standards and Interpretations

3.1 Standards and Interpretations Effective and Adopted in the Current Year

In the current year, the Company has adopted the following standards and interpretations that are effective for the current financial year and that are relevant to its operations:

IFRS 3	Business Combinations	Annual periods beginning on or after 1 July 2009
IAS 27	Consolidated and Separate Financial Statement	Annual periods beginning on or after 1 July 2009
IAS 7	Consequential Amendments due to IAS 27	Annual periods beginning on or after 1 July 2009
IAS 28	Investment in Associates: Consequential amendments due to IAS 27. Consolidated and Separate Financial Statement	Annual periods beginning on or after 1 July 2009
IAS 12	Income Taxes: Consequential amendments due to IAS 27. Consolidated and Separate Financial Statement	Annual periods beginning on or after 1 July 2009
IAS 39	Financial Instruments: Recognition and Measurement – Amendments for eligible hedge items	Annual periods beginning on or after 1 July 2009
IFRIC 18	Transfers of Assets from Customers	Annual periods beginning on or after 1 July 2009
IFRS 2	2009 Annual Improvements Project: Amendments to IFRS 2 Share-based payment	Annual periods beginning on or after 1 July 2009
IFRS 5	2009 Annual Improvements Project: Amendments to IFRS 5 non-current assets held-for-sale and discontinued operations	Annual periods beginning on or after 1 January 2010
IAS 1	2009 Annual Improvements Project: Amendments to IAS 1 presentation of financial statements	Annual periods beginning on or after 1 January 2010
IAS 7	2009 Annual Improvements Project: Amendments to IAS 7 Statement of Cash Flows	Annual periods beginning on or after 1 January 2010
IAS 17	2009 Annual Improvements Project: Amendments to IAS 17 Leases	Annual periods beginning on or after 1 January 2010
IAS 18	2009 Annual Improvements Project: Amendments to IAS 18 Revenue	Annual periods beginning on or after 1 June 2009
IAS 36	2009 Annual Improvements Project: Amendments to IAS 36 Impairment of Assets	Annual periods beginning on or after 1 January 2010
IAS 38	2009 Annual Improvements Project: Amendments to IAS 38 Intangible Assets	Annual periods beginning on or after 1 July 2009

IAS 39	2009 Annual Improvements Project: Amendments to IAS 39 Financial Instruments: Recognition and Measurement	Annual periods beginning on or after 1 January 2010
IFRIC 9	2009 Annual Improvements Project: Amendments to IFRIC 9 Reassessment of Embedded Derivatives	Annual periods beginning on or after 1 July 2009
IAS 10	Amendment Resulting from the Issue of IFRIC 17	Annual periods beginning on or after 1 July 2009
IAS 21	Consequential Amendments from Changes to Business Combinations	Annual periods beginning on or after 1 July 2009
IFRIC 17	Distribution of Non-cash Assets to Owners	Annual periods beginning on or after 1 July 2009
IFRIC 19	Extinguishing Financial Liabilities with Equity instruments	Annual periods beginning on or after 1 April 2010

3.2 Standards and Interpretations not yet Effective

The Company has chosen not to early adopt the following standards and interpretations, which have been published and are mandatory for the Company's accounting periods beginning on or after 1 April 2011 or later periods:

IFRS 9	Financial Instruments	Annual periods beginning on or after 1 January 2013
IAS 24	Related Party Disclosure (Revised)	Annual periods beginning on or after 1 January 2011
IFRS 1	2010 Annual Improvements Project: Amendments to IFRS 1 First time Adoption of International Financial reporting Standards	Annual periods beginning on or after 1 January 2011
IFRS 7	2010 Annual Improvements Project: Amendments to IFRS 7 Financial Instruments: Disclosures	Annual periods beginning on or after 1 January 2011
IAS 21	2010 Annual Improvements Project: Amendments to IAS 21 The Effects of Changes in Foreign Exchange rates	Annual periods beginning on or after 1 July 2010
IAS 28	2010 Annual Improvements Project: Amendments to IAS 28 Investments in Associates	Annual periods beginning on or after 1 July 2010
IAS 34	2010 Annual Improvements Project: Amendments in IAS 34 Interim Financial Reporting	Annual periods beginning on or after 1 January 2011
IFRIC 13	2010 Annual Improvements Project: Amendments in IFRIC 13 Customer Loyalty Programmes	Annual periods beginning on or after 1 January 2011
IFRIC 14	Improvement to IFRIC 14 – IFRS 19 The Limit on a Defined Benefit Asset, Minimum Funding Requirements and Their Interaction	Annual periods beginning on or after 1 January 2011

Notes to the Annual Financial Statements (continued)

IFRS 10	New standard that replaces the consolidation requirements in SIC 12 Consolidation Special purpose entities and IAS 27 Consolidated and Separate Financial Statements.	Annual periods beginning on or after 1 January 2013
IFRS 11	New standard that deals with the accounting for joint arrangements	Annual periods beginning on or after 1 January 2013
IFRS 12	New and comprehensive standard on disclosure requirements for all forms of interests in other entities	Annual periods beginning on or after 1 January 2013
IFRS 13	New guidance on fair value measurement and disclosure requirements	Annual periods beginning on or after 1 January 2013
IAS 1	2010 Annual Improvements Project: Clarification of statement of changes in equity	Annual periods beginning on or after 1 January 2011
IAS 12	Rebuttable presumption introduced that an investment property will be recovered in its entirety through sale	Annual periods beginning on or after 1 January 2012
IAS 19	Amendments to the accounting for current and future obligations resulting from the provision of defined benefit plans	Annual periods beginning on or after 1 January 2013
IAS 27	Consequential amendments resulting from the issue of IFRS 10, 11 and 12	Annual periods beginning on or after 1 January 2013
IFRS 3	2010 Annual Improvements Project: Amendments business combinations	Annual periods beginning on or after 1 July 2011

4. Investment Property

	2011			2010			2009		
	Cost/ Valuation R'000	Accumulated depreciation R'000	Carrying value R'000	Cost/ Valuation R'000	Accumulated depreciation R'000	Carrying value R'000	Cost/ Valuation R'000	Accumulated depreciation R'000	Carrying value R'000
Group									
Investment property	52,105	-	52,105	44,881	-	44,881			
Company									
Investment property	107,849	-	107,849	94,121	-	94,121	80,875	-	80,875

	Opening balance R'000	Transfers R'000	Fair value adjustments R'000	Total R'000
Reconciliation of investment property – Group – 2011				
Investment property	44,881	1,738	5,486	52,105
Reconciliation of investment property – Group – 2010				
Investment property	32,531	(950)	13,300	44,881
Reconciliation of investment property – Company – 2011				
Investment property	94,121	(324)	14,052	107,849
Reconciliation of investment property – Company – 2010				
Investment property	80,874	(524)	13,771	94,121
Reconciliation of investment property – Company – 2009				
Investment property	61,076	3,410	16,389	80,875

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Fair value of investment properties	52,105	44,881	107,849	94,121	79,289
A register containing the information required by paragraph 22(3) of Schedule 4 of the Companies Act is available for inspection at the registered office of the Company.					
Details of Valuation					
The effective date of the revaluations was 31 March 2011. Revaluations were performed by an independent valuer, Prof. CH Klopper, of Klopper Molefe Associates (Pty) Ltd. Prof. CH Klopper is a registered Professional Valuer in terms of section 19 of the Property Valuers Act, No. 47 of 2000. Klopper Molefe Associates is not a related party to the Group and is independent.					
The valuation was based on open market value and is wherever possible, derived from comparable transactions.					
Amounts recognised in profit and loss for the year					
Rental income from investment property	2,835	6,359	8,606	13,197	12,012

Notes to the Annual Financial Statements (continued)

5. Property, Plant and Equipment

	2011			2010		
	Cost/ Valuation R'000	Accumulated depreciation R'000	Carrying value R'000	Cost/ Valuation R'000	Accumulated depreciation R'000	Carrying value R'000
Group						
Land and buildings	446,645	-	446,645	434,293	-	434,293
Plant	195,264	(104,129)	91,135	182,921	(100,039)	82,882
Furniture and fixtures	13,732	(3,484)	10,248	9,664	(2,454)	7,210
Motor vehicles and transport containers	43,962	(12,990)	30,972	35,436	(8,835)	26,601
Office equipment	8,448	(4,720)	3,728	6,924	(3,971)	2,953
IT equipment	48,438	(29,918)	18,520	41,341	(25,453)	15,888
Research facilities	8,924	(1,777)	7,147	8,924	(911)	8,013
Leasehold improvements	195	(20)	175	507	(227)	280
Machinery and equipment	214,992	(93,525)	121,467	185,521	(71,965)	113,556
Component spares	11,498	(4,073)	7,425	10,851	(3,329)	7,522
Startup costs	27	(4)	23	3	-	3
Total	992,125	(254,640)	737,485	916,385	(217,184)	699,201

	2011			2010			2009		
	Cost/ Valuation R'000	Accumulated depreciation R'000	Carrying value R'000	Cost/ Valuation R'000	Accumulated depreciation R'000	Carrying value R'000	Cost/ Valuation R'000	Accumulated depreciation R'000	Carrying value R'000
Company									
Land and buildings	390,891	-	390,891	382,913	-	382,913	89,021	(27,199)	61,822
Plant	77,981	(20,035)	57,946	66,688	(18,065)	48,623	52,073	(16,083)	35,990
Furniture and fixtures	9,313	(2,133)	7,180	6,934	(1,212)	5,722	4,485	(529)	3,956
Motor vehicles and transport containers	16,338	(5,609)	10,729	10,823	(3,804)	7,019	9,190	(2,652)	6,538
Office equipment	6,599	(3,917)	2,682	5,381	(3,295)	2,086	4,991	(2,642)	2,349
IT equipment	39,017	(25,809)	13,208	33,839	(21,200)	12,639	29,885	(15,896)	13,989
Research facilities	8,924	(1,777)	7,147	8,924	(911)	8,013	7,721	(80)	7,641
Machinery and equipment	169,511	(76,259)	93,252	147,273	(57,738)	89,535	121,404	(39,911)	81,493
Total	718,574	(135,539)	583,035	662,775	(106,225)	556,550	318,770	(104,992)	213,778

Reconciliation of Property, Plant and Equipment

	Opening balance R'000	Additions R'000	Disposals R'000	Classified as held-for-sale R'000	Transfers to/(from) investment property R'000	Revaluations R'000	Foreign exchange movements R'000	Reassess of decommissioning and decontamination asset R'000	Depreciation R'000	Total R'000
Group – 2011										
Land and buildings	434,293	12,021	(246)	(2,130)	(1,738)	20,237	-	-	(15,792)	446,645
Plant	82,882	30,872	(327)	-	(206)	-	27	(440)	(21,673)	91,135
Furniture and fixtures	7,210	5,774	(54)	-	150	-	(2)	-	(2,830)	10,248
Motor vehicles and transport containers	26,601	10,290	(1,043)	-	3	-	-	-	(4,879)	30,972
Office equipment	2,953	1,461	(5)	-	93	-	1	-	(775)	3,728
IT equipment	15,888	8,421	(104)	-	-	-	(1)	-	(5,684)	18,520
Research facilities	8,013	-	-	-	-	-	-	-	(866)	7,147
Leasehold improvements	280	-	(54)	-	(27)	-	-	-	(24)	175
Machinery and equipment	113,556	26,874	(138)	-	-	-	1	-	(18,826)	121,467
Component spares	7,522	956	-	-	-	-	-	-	(1,053)	7,425
Startup costs	3	24	-	-	-	-	-	-	(4)	23
	699,201	96,693	(1,971)	(2,130)	(1,725)	20,237	26	(440)	(72,406)	737,485

	Opening balance R'000	Additions R'000	Additions through business combinations R'000	Disposals R'000	Transfers to/(from) investment property R'000	Revaluations R'000	Reassess of decommissioning and decontamination asset R'000	Depreciation R'000	Impairment loss R'000	Total R'000
Group – 2010										
Land and buildings	93,448	19,579	3,000	-	950	321,595	-	(4,279)	-	434,293
Plant	69,964	18,624	2,688	(103)	(80)	-	(800)	(7,411)	-	82,882
Furniture and fixtures	5,124	2,834	157	(1)	37	-	-	(941)	-	7,210
Motor vehicles and transport containers	23,220	5,925	685	(26)	80	-	-	(3,283)	-	26,601
Office equipment	2,994	787	100	(11)	(37)	-	-	(880)	-	2,953
IT equipment	16,679	6,562	96	(102)	(279)	-	-	(7,068)	-	15,888
Research facilities	7,641	1,203	-	-	-	-	-	(831)	-	8,013
Leasehold improvements	254	2	26	-	-	-	-	(2)	-	280
Machinery and equipment	101,139	33,997	-	(89)	279	-	-	(21,770)	-	113,556
Component spares	8,136	253	-	-	-	-	-	(970)	103	7,522
Startup costs	3	-	-	-	-	-	-	-	-	3
	328,602	89,766	6,752	(332)	950	321,595	(800)	(47,435)	103	699,201

Notes to the Annual Financial Statements (continued)

5. Property, Plant and Equipment (continued)

Reconciliation of Property, Plant and Equipment

	Opening balance R'000	Additions R'000	Disposals R'000	Transfers to/(from) investment property R'000	Revaluations R'000	Depreciation R'000	Total R'000
Company – 2011							
Land and buildings	382,913	10,007	(246)	324	10,129	(12,236)	390,891
Plant	48,623	11,418	(9)	-	-	(2,086)	57,946
Furniture and fixtures	5,722	2,380	(1)	-	-	(921)	7,180
Motor vehicles and transport containers	7,019	5,515	-	-	-	(1,805)	10,729
Office equipment	2,086	1,269	(3)	-	-	(670)	2,682
IT equipment	12,639	6,059	(82)	-	-	(5,408)	13,208
Research facilities	8,013	-	-	-	-	(866)	7,147
Machinery and equipment	89,535	22,513	(138)	-	-	(18,658)	93,252
	556,550	59,161	(479)	324	10,129	(42,650)	583,035
Company – 2010							
Land and Buildings	61,822	21,381	-	524	303,466	(4,280)	382,913
Plant	35,990	14,736	(82)	-	-	(2,021)	48,623
Furniture and fixtures	3,956	2,450	(1)	-	-	(683)	5,722
Motor vehicles and transport containers	6,538	1,673	(10)	-	-	(1,182)	7,019
Office equipment	2,349	446	(11)	-	-	(698)	2,086
IT equipment	13,989	4,545	(86)	-	-	(5,809)	12,639
Research facilities	7,641	1,203	-	-	-	(831)	8,013
Machinery and equipment	81,493	26,114	(81)	-	-	(17,991)	89,535
	213,778	72,548	(271)	524	303,466	(33,495)	556,550
Company – 2009							
Buildings	47,556	20,273	-	(3,410)	-	(2,597)	61,822
Plant and machinery	27,931	10,213	-	-	-	(2,154)	35,990
Furniture and fixtures	1,568	2,739	-	-	-	(351)	3,956
Motor vehicles	4,308	3,093	-	-	-	(863)	6,538
Office equipment	1,752	1,186	(2)	-	-	(587)	2,349
IT equipment	12,067	7,405	(148)	-	-	(5,335)	13,989
Research facilities	2,878	5,909	-	-	-	(1,146)	7,641
Machinery and equipment	59,066	36,404	(11)	-	-	(13,966)	81,493
	157,126	87,222	(161)	(3,410)	-	(26,999)	213,778

Assets Subject to Finance Lease (Net Carrying Amount)

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Motor vehicles	1,126	-	-	-	-

Revaluations

The effective date of the revaluations was 31 March 2011. Revaluations were performed by an independent valuer, Prof. CH Klopper, of Klopper Molefe Associates (Pty) Ltd. Prof. CH Klopper is a registered Professional Valuer in terms of section 19 of the Property Valuers Act, No. 47 of 2000. Klopper Molefe Associates is not a related party to the Group and is independent.

The valuation was based on open market value and is wherever possible, derived from comparable transactions.

Land and buildings consist of the following properties:

Necsa: Farm 567, Weldaba; Erf 1150, 1153, 1155 and 1156 Albertinia; Erf 4473 and 4474 Riverdale; Erf 1115, 1224, 1916, 1917, 1919, 1921, 1922, 1924, 1926, 1928 and 1929 Springbok; Farm 369 and 380, Vaalputs.

The estimation of the useful lives of property, plant and equipment is based on historic performance as well as expectations about future use and therefore requires a significant degree of judgement to be applied by management. These depreciation rates represent management's current best estimate of the useful lives of the assets.

The previous impairment of the WF₆ plant of Pelchem was reversed and the plant was written off.

A register containing the information required by paragraph 22(3) of Schedule 4 of the Companies Act is available for inspection at the registered office of the Company.

6. Goodwill

	2011			2010		
	Cost/Valuation R'000	Accumulated impairment R'000	Carrying value R'000	Cost/Valuation R'000	Accumulated impairment R'000	Carrying value R'000
Group						
Goodwill	15,781	(1,194)	14,587	15,781	-	15,781

Notes to the Annual Financial Statements (continued)

6. Goodwill (continued)

Reconciliation of Goodwill

	Opening balance R'000	Additions through business combinations R'000	Impairment loss R'000	Total R'000
Group – 2011				
Goodwill	15,781	-	(1,194)	14,587
Group – 2010				
Goodwill	3,230	12,551	-	15,781

Goodwill arose on the acquisition of the following subsidiaries:

A 100% shareholding in Pharmatopes (Pty) Ltd was acquired on 1 January 2009 by AEC Amersham (Pty) Ltd.

A 55% shareholding in Gammatec NDT Supplies (Pty) Ltd was acquired on 1 October 2009 by NTP Radioisotopes (Pty) Ltd. The Gammatec Group of Companies consists of six companies located in South Africa, Malaysia, the Middle East, Australia and New Zealand.

Goodwill is initially measured at cost, being the excess of the business combination over the Company's interest in the net fair value of the identifiable assets, liabilities and contingent liabilities.

Goodwill in Lectromax Australia (Pty) Ltd was impaired in the current year.

7. Intangible Assets

	2011			2010		
	Cost/valuation R'000	Accumulated amortisation R'000	Carrying value R'000	Cost/valuation R'000	Accumulated amortisation R'000	Carrying value R'000
Group						
Patents, trademarks and other rights	1,105	-	1,105	-	-	-

The intangible asset relates to intellectual property generated internally by Pelchem (Pty) Ltd and used in the purification of fluorine. Its lifetime is considered by management to be nine years.

8. Investments in Subsidiaries

Name of Company	Held by	% Holding power 2011	% Holding power 2010	% Holding power 2009	Carrying amount 2011 R'000	Carrying amount 2010 R'000	Carrying amount 2009 R'000
Pelchem (Pty) Ltd	Necsa	100.00%	100.00%	100.00%	98,818	98,818	115,959
NTP Radioisotopes (Pty) Ltd	Necsa	100.00%	100.00%	100.00%	220,700	220,700	220,700
Cyclofil (Pty) Ltd	Necsa	100.00%	100.00%	100.00%	-	-	-
ARECSA Human Capital (Pty) Ltd	Necsa	51.00%	51.00%	51.00%	1	1	1
					319,519	319,519	336,660

The carrying amounts of subsidiaries are shown net of impairment losses.

Impairment of Investment

The Company assessed impairment indicators for its investments during the current reporting period and the results indicated that the investment in Pelchem (Pty) Ltd needed to be tested for impairment. An impairment test was performed on the investment at 31 March 2011. The outcome of the impairment test indicated that no impairment is necessary in the 2011 financial year.

An impairment test was also performed on the investment in 2010 indicating an impairment loss of R17,141. This amount was recognised in the statement of comprehensive income in other expenses. The carrying value of the investment was higher than its value in use which was calculated using the discounted cash flow method at a discount rate of 17.22%.

9. Investments in Associates

Name of Company	Held by	% Holding power 2011	% Holding power 2010	% Holding power 2009	Carrying amount 2011 R'000	Carrying amount 2010 R'000	Carrying amount 2009 R'000	Fair value 2011 R'000	Fair value 2010 R'000	Fair value 2009 R'000
Group										
BVI No. 33 (Pty) Ltd	Necsa	41.67%	41.67%	41.67%	2	2	2	2	2	-
Linde Electronics South Africa (Pty) Ltd	Pelchem	49.90%	49.90%	49.90%	-	-	1,049	-	-	1,049
Oserix	Gammatec NDT	25.00%	-	-	-	-	-	-	-	-
					2	2	1,051	2	2	1,051
Company										
BVI No. 33 (Pty) Ltd	Necsa	41.67%	41.67%	41.67%	2	2	2	2	2	-
					2	2	2	2	2	2

The carrying amounts of associates are shown net of impairment losses.

Summary of Groups Interest in Associate

	2011 R'000	2010 R'000	2009 R'000
Total assets	13,476	14,814	7,687
Total liabilities	20,911	13,060	216
Revenue	50,838	56,409	47,435
Profit or (loss)	(5,231)	(5,717)	2,225

Associates with Different Reporting Dates

The financial year end of Linde Electronics South Africa (Pty) Ltd is 31 December. This date was the financial year end established when the Company was incorporated. For the purpose of applying the equity method of accounting, the financial statements of Linde Electronics South Africa (Pty) Ltd for the year ended 31 December 2010 (2010: 31 December 2009) have been used, and appropriate adjustments have been made for the effects of significant transactions between that date and 31 March 2011 (2010: 31 March 2010).

Notes to the Annual Financial Statements (continued)

9. Investments in Associates (continued)

The financial year end of BVI No. 33 (Pty) Ltd is 28 February. This date was the financial year end established when the Company was incorporated. For the purpose of applying the equity method of accounting, the financial statements of BVI No. 33 (Pty) Ltd for the year ended 28 February 2011 (2010: 28 February 2010) has been used, and appropriate adjustments have been made for the effects of significant transactions between that date and 31 March 2011 (2010: 31 March 2010). The Company had no assets or liabilities at 31 March 2010 and did not trade during the current year.

Unrecognised Share of Losses of Associates

The Group did not recognise its share of the losses of Linde Electronics South Africa (Pty) Ltd during 2010, as the investment is held at zero. The total unrecognised losses for the current period amount to R6,114 (2010: R1,752). The Group did not recognise its full share of the losses of Oserix during 2011. The total unrecognised losses for the current period amount to R333 (2010: R-).

10. Loans to/(from) Group Companies

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Subsidiaries					
Pelchem (Pty) Ltd	-	-	12,682	11,909	14,361
These are two separate loans; a loan of R11,536 which bears interest at prime less 2% and has no fixed repayment term and a loan of R1,146 which bears no interest and is repayable on demand.					
NTP Radioisotopes (Pty) Ltd	-	-	11,602	11,289	15,936
These are two separate loans; a loan of R9,869 which bears interest at prime less 2%, subordinated to Nedbank and has no fixed repayment term and a loan of R1,733 which bears no interest, is unsecured and is repayable on demand.					
Fluoropack (Pty) Ltd	-	-	2	12	-
The loan is unsecured, bears no interest and has no fixed repayment term.					
	-	-	24,286	23,210	30,297
Associates					
Linde Electronics of South Africa (Pty) Ltd	(2,530)	(2,352)	-	-	-
The loan is non-interest bearing and is repayable on 2 June 2013. Deemed interest of R178 (2010: R195) was charged during the year.					
BVI No. 33 (Pty) Ltd	972	972	-	-	-
The loan is unsecured, bears no interest and has no fixed repayment term.					
Oserix	998	-	-	-	-
The loan is unsecured, bears no interest and has no fixed repayment term.					
	(560)	(1,380)	-	-	-
Impairment of loans to associates	(972)	(972)	-	-	-
	(1,532)	(2,352)	-	-	-
Non-current assets	998	-	2	12	-
Current assets	-	-	24,284	23,198	30,297
Non-current liabilities	(2,530)	(2,352)	-	-	-
	(1,532)	(2,352)	24,286	23,210	30,297

The maximum exposure to credit risk at the reporting date is the fair value of each class of loan mentioned above. The Group does not hold any collateral as security.

11. Loans to/(from) Minority Shareholders

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Transglobal Logistics (Pty) Ltd	-	(490)	-	-	-
Fluoro Corp (Pty) Ltd	-	(36)	-	-	-
Bruce Owen	(2)	(597)	-	-	-
Paul Rainier-Pope	(291)	(278)	-	-	-
Ralph Davies	(556)	(299)	-	-	-
M Gonzalez	(33)	-	-	-	-
	(882)	(1,700)	-	-	-

These loans are unsecured, have no fixed repayment terms and interest is only payable on the loan from Transglobal Logistics (Pty) Ltd at prime less 2%.

The maximum exposure to credit risk at the reporting date is the fair value of each class of loan mentioned above. The Group does not hold any collateral as security.

12. Other Financial Assets

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Available-for-sale					
Listed shares	2,148	1,429	2,135	1,417	888
Unit trusts	66,909	43,970	66,909	43,970	26,217
Deposits with insurance companies	-	16,737	-	16,737	20,072
	69,057	62,136	69,044	62,124	47,177
Non-current assets					
Available-for-sale	69,057	62,136	69,044	62,124	47,177

Fair Value Information

Financial assets at fair value through other comprehensive income are recognised at fair value, which is therefore equal to their carrying amounts. The following classes of financial assets at fair value through other comprehensive income are measured to fair value using quoted market prices:

- Listed shares;
- Unit trusts; and
- Deposits with insurance companies.

Where quoted market prices are not available, the discounted cash flow analysis is used to determine fair value.

Fair values are determined annually at the statement of financial position date.

Notes to the Annual Financial Statements (continued)

12. Other Financial Assets (continued)

Listed at Fair Value

For financial assets recognised at fair value, disclosure is required of a fair value hierarchy which reflects the significance of the inputs used to make the measurements.

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Listed – at fair value					
Sanlam – Ordinary shares @ R27.60 (2010: R24.87 each)	1,093	985	1,079	973	659
Old Mutual – Ordinary shares @ R32.20 (2010: R13.56) each	1,056	444	1,056	444	229
Unit Trusts – Collective Investment Schemes	66,908	43,970	66,909	43,970	26,217
Deposits with Insurance Companies	-	16,737	-	16,737	20,072
	69,057	62,136	69,044	62,124	47,177
Average return on investment					
Deposits with insurance companies	1%	9%	1%	9%	(25)%
Listed shares	51%	60%	51%	60%	(34)%
Unit trusts	8%	8%	8%	8%	5%
The above mentioned investments have been set aside by the Board of Directors to fund the following:					
Post-retirement medical benefits	9,517	7,737	9,504	7,725	8,927
Provision: Insurance fund	-	1,281	-	1,281	1,236
Provision: After-reactor management cycle	13,389	12,463	13,389	12,463	10,619
Provision: Decommissioning and decontamination	45,651	40,655	45,651	40,655	26,395
	68,557	62,136	68,544	62,124	47,177
Available-for-sale financial assets can be reconciled as follows:					
Opening balance	62,136	47,185	62,124	47,177	43,543
Invested during the year	5,771	10,112	5,771	10,112	8,349
Charged to the income statement	2,934	4,762	2,934	4,762	4,450
Provision	-	(40)	-	(40)	40
Withdrawal	(2,840)	-	(2,840)	-	-
Shares purchased	-	2	-	2	-
Fair value adjustment	1,056	115	1,055	111	(9,205)
	69,057	62,136	69,044	62,124	47,177

The Group has not reclassified any financial assets from cost or amortised cost to fair value, or from fair value to cost or amortised cost during the current or prior year.

13. Financial Assets by Category

The accounting policies for financial instruments have been applied to the line items below:

	Loans and receivables R'000	Fair value through profit or loss – held for trading R'000	Available-for- sale R'000	Total R'000
Group – 2011				
Loans to Group Companies	998	-	-	998
Other financial assets	-	-	69,057	69,057
Trade and other receivables	263,791	-	-	263,791
Cash and cash equivalents	-	482,732	-	482,732
Finance lease receivables	1,970	-	-	1,970
	266,759	482,732	69,057	818,548
Group – 2010				
Loans to minority shareholders	1,700	-	-	1,700
Other financial assets	-	-	62,136	62,136
Trade and other receivables	236,484	-	-	236,484
Cash and cash equivalents	-	326,372	-	326,372
	238,184	326,372	62,136	626,692
Company – 2011				
Loans to Group Companies	24,286	-	-	24,286
Other financial assets	-	-	69,044	69,044
Trade and other receivables	123,645	-	-	123,645
Cash and cash equivalents	-	109,896	-	109,896
	147,931	109,896	69,044	326,871
Company – 2010				
Loans to Group Companies	23,210	-	-	23,210
Other financial assets	-	-	62,124	62,124
Trade and other receivables	59,979	-	-	59,979
Cash and cash equivalents	-	103,406	-	103,406
	83,189	103,406	62,124	248,719
Company – 2009				
Loans to Group Companies	30,297	-	-	30,297
Other financial assets	-	-	47,177	47,177
Trade and other receivables	79,748	-	-	79,748
Cash and cash equivalents	-	85,477	-	85,477
	110,045	85,477	47,177	242,699

Notes to the Annual Financial Statements (continued)

14. Deferred Tax

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Deferred tax asset					
Property, plant and equipment	8,898	8,898	-	-	-
Provisions, allowances and PRMA liability	3,549	3,471	-	-	-
Fair value and IFRS adjustments	96	228	-	-	-
Tax losses	636	636	-	-	-
Reserves	(125)	(292)	-	-	-
	13,054	12,941	-	-	-
Reconciliation of deferred tax asset					
At beginning of the year	12,941	9,918	-	-	-
Increase/(decrease) in tax losses available for set off against future taxable income	(269)	1,665	-	-	-
Originating temporary difference on fixed assets	94	798	-	-	-
Originating temporary difference on provisions and tax allowances	88	549	-	-	-
Originating/(reversing) temporary difference on fair value and IFRS adjustments	(86)	20	-	-	-
Originating temporary difference on PRMA liability	106	283	-	-	-
Originating temporary difference on reserves	180	(292)	-	-	-
	13,054	12,941	-	-	-
Deferred tax liability					
Property, plant and equipment	(12,459)	(12,102)	-	-	-
Provisions, allowances and PRMA liability	-	936	-	-	-
Fair value and IFRS adjustments	11,376	3,424	-	-	-
Tax losses	(4)	-	-	-	-
Prepayment	(8)	-	-	-	-
	(1,095)	(7,742)	-	-	-
Reconciliation of deferred tax (liability)					
At beginning of the year	(7,742)	(10,102)	-	-	-
Originating temporary difference on fair value adjustments	-	106	-	-	-
Originating/(reversing) temporary difference on PRMA liability, provisions and allowances	-	925	-	-	-
Originating/(reversing) temporary difference on fixed assets	6,647	1,329	-	-	-
	(1,095)	(7,742)	-	-	-

15. Finance Lease Receivables

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Non-current assets	1,341	-	-	-	-
Current assets	629	-	-	-	-
	1,970	-	-	-	-

The Group entered into finance leasing arrangements for certain of its equipment.

16. Retirement Benefits

Provident Fund Benefits

The Company and its two major subsidiaries, NTP Radioisotopes and Pelchem, operates a provident fund scheme which is governed by the Pensions Fund Act, No. 24 of 1956. The scheme is generally funded through payments to insurance companies or trustee administered funds, determined by periodic actuarial calculations. The Company has defined contribution plans established in 1994. These contribution plans are compulsory for every permanent employee employed in accordance with the conditions of employment, primarily by means of monthly contributions to the Necsa Retirement Fund. A defined contribution plan is a provident fund under which the Group pays fixed contributions into a separate entity. The Company has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee services in the current and prior periods. The contributions are recognised as an expense when they are due. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in the future payments is available.

The Necsa Retirement Fund is revalued by an independent actuary on an annual basis. The last actuarial valuation was performed in April 2011 for the period ending 31 March 2011. The conclusion made in the latest actuarial valuation was that the Fund is currently in a good financial position and should remain so, based on the contribution rates payable in terms of the rules of the Fund, until the next actuarial valuation. The next actuarial valuation will be performed in April 2012 for the period ended 31 March 2012.

Post-retirement Medical Aid

The Company provides post-retirement health care benefits to employees who were employed on or before 30 September 2004. The entitlement to post-retirement health care benefits is further based on the employee remaining in service up to retirement age and completing a minimum service period. The expected costs of these benefits are accrued over the period of employment, using an accounting methodology similar to that for defined benefit pension plans. Independent qualified actuaries carry out valuations of these obligations. All actuarial gains and losses are recognised immediately in the statement of comprehensive income. The actuarial valuation method used to value the obligations is the projected unit credit method. Future benefit values are projected using specific actuarial assumptions and the liability to in service members is accrued over the expected working lifetime. These obligations are funded over a 25 year period. The valuation is done every year. Management has embarked on a strategy to effectively manage its future commitments by initiating a plan that consists of settling the present value of the future commitments of a small targeted employee base and purchasing an inflation linked annuity for the remainder.

Notes to the Annual Financial Statements (continued)

16. Retirement Benefits (continued)

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Carrying value					
Present value of the defined benefit obligation	(322,883)	(296,023)	(296,984)	(275,439)	(254,287)
Fair value of plan assets	16,466	-	4,375	-	-
Past service cost not recognised	(51,363)	(55,167)	(51,363)	(55,167)	(58,971)
	(357,780)	(351,190)	(343,972)	(330,606)	(313,258)
Non-current liabilities	(357,780)	(351,072)	(343,972)	(330,606)	(313,258)
Current liabilities	-	(118)	-	-	-
	(357,780)	(351,190)	(343,972)	(330,606)	(313,258)
Reconciliation of net liability recognised in the statement of financial position					
Opening balance	351,190	331,162	330,606	313,258	312,749
Current service cost	5,091	4,781	3,951	3,743	4,145
Interest cost	26,459	23,655	24,565	22,052	22,719
Benefits paid	(46,376)	(17,664)	(32,507)	(17,481)	(16,561)
Actuarial (gains)/losses	25,220	13,060	21,161	12,838	(5,990)
Past service cost recognised	(3,804)	(3,804)	(3,804)	(3,804)	(3,804)
	357,780	351,190	343,972	330,606	313,258
Reconciliation of present value of obligations in excess of plan assets					
Opening balance	296,023	272,191	275,439	254,287	249,974
Current service cost	5,091	4,781	3,951	3,743	4,145
Interest cost	26,459	23,655	24,565	22,052	22,719
Benefits paid	(46,376)	(17,664)	(32,507)	(17,481)	(16,561)
Actuarial (gains)/losses	25,220	13,060	21,161	12,838	(5,990)
	306,417	296,023	292,609	275,439	254,287
Net expense recognised in the statement of comprehensive income					
Current service cost	5,091	4,781	3,951	3,743	4,145
Interest cost	26,459	23,655	24,565	22,052	22,719
Benefits paid	(21,801)	(17,664)	(9,514)	(17,481)	(16,561)
Past service cost	(3,804)	(3,804)	(3,804)	(3,804)	(3,804)
Actuarial (gains)/losses	25,220	13,060	21,161	12,838	(5,990)
Expected return on plan assets	(1,582)	-	-	-	-
	29,583	20,028	36,359	17,348	509

Key Assumptions Used

Assumptions used on the last valuation on 31 March 2011.

	Group		Company	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
CPI Inflation	6.00%	5.50%	6.00%	5.50%
Discount rates per annum	9.25%	9.25%	9.25%	9.25%
Expected retirement age	65	65	65	65
Membership discontinued at retirement or death in service	-%	-%	-%	-%
Withdrawal assumption	0%–16% (Males)	0%–16% (Males)	0%–16% (Males)	0%–16% (Males)
	0%–24% (Females)	0%–24% (Females)	0%–24% (Females)	0%–24% (Females)
Post-retirement assumption	PA (90) ultimate rated down 2 years			

Sensitivity results on actuarial valuation for 31 March 2011:

	Central assumption	CPI inflation			
	5.5%	-1%	% Change	+1%	% Change
Group					
Accrued liability 31 March 2011 (R'000)	296,996	267,529	(9.9)%	331,984	11.8%
Current service cost and interest cost 2010/11 (R'000)	30,073	28,116	6.5%	34,009	13.1%
Accrued liability 31 March 2010 (R'000)	296,023	265,631	(10.3)%	332,339	12.3%
Current service cost and interest cost 2009/10 (R'000)	28,516	25,331	(11.2)%	32,354	13.5%
Company					
Accrued liability 31 March 2011 (R'000)	296,984	267,507	(9.9)%	331,953	11.9%
Current service cost and interest cost 2010/11 (R'000)	30,058	26,762	(11.0)%	34,005	13.0%
Accrued liability 31 March 2010 (R'000)	275,439	248,366	(9.8)%	307,587	11.7%
Current service cost and interest cost 2009/10 (R'000)	28,516	25,331	(11.2)%	32,354	13.5%

Notes to the Annual Financial Statements (continued)

16. Retirement Benefits (continued)

	Central assumption 9.25%	-1%	% Change	Discount rate +1%	% Change
Group					
Accrued liability 31 March 2011 (R'000)	296,996	334,627	12.6%	268,077	(9.7)%
Accrued liability 31 March 2010 (R'000)	296,023	339,512	14.7%	266,337	(10.0)%
Company					
Accrued liability 31 March 2011 (R'000)	296,984	334,595	12.7%	268,055	(9.7)%
Accrued liability 31 March 2010 (R'000)	275,439	313,832	13.9%	248,976	(9.6)%
	Central assumption 60/65 years	1 year younger	% Change	Expected retirement age 1 year older	% Change
Group					
Accrued liability 31 March 2011 (R'000)	297,010	303,322	2.1%	291,022	(2.0)%
Accrued liability 31 March 2010 (R'000)	296,023	303,975	2.7%	288,781	(2.4)%
Company					
Accrued liability 31 March 2011 (R'000)	296,984	303,295	2.1%	290,998	(2.0)%
Accrued liability 31 March 2010 (R'000)	275,439	281,627	2.2%	269,741	(2.1)%
	Central assumption PA (90) ult	Mortality assumption PA (90) ult. rated down 2 years with 1.0% improvement p.a from 2006	% Change		
Group					
Accrued liability 31 March 2011 (R'000)	296,996	306,419	3.2%		
Accrued liability 31 March 2010 (R'000)	296,023	313,154	5.8%		
Company					
Accrued liability 31 March 2011 (R'000)	296,984	306,392	3.0%		
Accrued liability 31 March 2010 (R'000)	275,439	291,126	5.7%		
	31 March 2007	31 March 2008	31 March 2009	31 March 2010	31 March 2011
Group					
Present value of obligations (R'000)	245,651	266,780	272,191	296,023	292,635
Experience adjustment (R'000)	(2,068)	12,330	(7,410)	13,060	3,677
Company					
Present value of obligations (R'000)	238,894	249,974	254,287	275,287	296,984
Experience adjustment (R'000)	(2,407)	10,503	(5,990)	(4,339)	-

17. Inventories

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Raw materials	4,407	4,870	-	-	-
Work in progress	43,890	13,698	31,314	12,209	18,141
Finished goods	15,528	10,353	4,428	191	338
Life science products and equipment	3,955	4,514	-	-	-
Plant components	21,714	20,926	-	-	-
Consumables	77,426	45,363	11,546	11,480	15,007
	166,920	99,724	47,288	23,880	33,486
Impairment of inventory	(5,634)	(6,026)	(1,224)	(1,628)	(1,425)
	161,286	93,698	46,064	22,252	32,061

18. Trade and Other Receivables

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Trade receivables	195,873	205,032	90,085	51,341	54,462
Prepayments	31,734	21,947	27,709	2,474	4,186
Deposits	209	20	-	-	-
VAT	28,872	10,315	-	2,029	5,006
Other receivables	7,103	(830)	5,851	4,135	16,094
	263,791	236,484	123,645	59,979	79,748

Trade and Other Receivables Pledged as Security

Trade and other receivables of Gammatec NDT (Pty) Ltd were pledged as security for overdraft facilities.

Credit Quality of Trade and Other Receivables

The credit quality of trade and other receivables that are neither past due nor impaired can be assessed by reference to external credit ratings (if available) or to historical information about counterparty default rates:

Trade Receivables

Fair value of trade and other receivables

Trade and other receivables	263,791	236,484	123,645	59,979	79,748
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Trade and other receivables are initially measured at fair value, and are subsequently measured at amortised cost using the effective interest rate method. The carrying value of Trade and other receivables is reduced by an interest charge of (R1,428) (2010: (R1,247), 2009: R2,052) to discount the carrying value to amortised cost for the Company and an interest charge of (R6,469) (2010: R1,623, 2009: R3,807) for the Group.

Notes to the Annual Financial Statements (continued)

18. Trade and Other Receivables (continued)

Trade and Other receivables Past Due but not Impaired

Trade and other receivables which are past due are assessed for impairment on an ongoing basis. At 31 March 2011, R728 (2010: R9,590; 2009: R22,375) were past due but not impaired for the Company and R56,130 (2010: R72,134; 2009: R38,103) were past due but not impaired for the Group. The ageing of these amounts are less than 1 year outstanding.

Trade and Other Receivables Impaired

As of 31 March 2011, trade and other receivables of (R4,741) (2010: (R5,465), 2009: (R2,790)) were past due and provided for possible impairment by the Company and (R7,648) (2010: (R8,592)) were past due and provided for possible impairment by the Group. These amounts were fully provided for due to the uncertainty of its recoverability.

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Reconciliation of provision for impairment of trade and other receivables					
Opening balance	8,592	3,379	5,465	2,790	2,674
Provision for impairment raised	4,524	8,463	4,741	5,587	116
Amounts written off as uncollectable	(3,655)	(3,189)	(1,754)	(2,912)	-
Unused amounts reversed	(1,813)	(61)	(3,711)	-	-
	7,648	8,592	4,741	5,465	2,790

The creation and release of provision for impaired receivables have been included in operating expenses in profit or loss.

The maximum exposure to credit risk at the reporting date is the fair value of each class of loan mentioned above. The Group does not hold any collateral as security.

The credit period on sales of goods is 30 days from date of statement. Interest on overdue accounts is charged based on management discretion. It is the policy of the Group to provide fully for receivables over 90 days if all procedures have been implemented to recover the outstanding debt and recovery seems unlikely. The other classes within trade and other receivables do not contain impaired assets.

19. Cash and Cash Equivalents

Cash and cash equivalents consist of:

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Cash on hand	87	94	72	74	11
Bank balances	112,104	86,140	34,716	22,434	13,235
Short-term deposits	370,541	240,138	75,108	80,898	72,231
Bank overdraft	(12,110)	(668)	-	-	-
	470,622	325,704	109,896	103,406	85,477
Current assets	482,732	326,372	109,896	103,406	85,477
Current liabilities	(12,110)	(668)	-	-	-
	470,622	325,704	109,896	103,406	85,477

The government of South Africa is irrevocably bound as surety and co-principal debtor to Absa Bank Limited with regard to the repayment of capital and payment of interest and any other charges in terms of the general short-term banking facility of Necsa to the amount of R20 million.

Details of Facilities

Asset-based financing	13,000	39,020	-	8,000	8,000
Forex settlement limit	1,750	299,350	-	-	-
ACB Magtape credits	28,000	19,000	28,000	19,000	19,000
ACB Magtape debits	100	100	100	100	100
FEC's	68,700	32,300	29,000	29,000	29,000
Commitments regarding guarantees (foreign)	140	1	-	-	-
Commitments regarding guarantees (local)	2,200	2,455	-	-	-
General short-term banking facility	14,000	14,950	7,000	7,000	20,000
Medium term loan	2,250	2,292	-	-	-
Letter of credit	450	450	-	-	-
Overdraft	17,390	-	-	-	-
CFC	1,500	-	-	-	-
Bills of exchange	100	-	-	-	-
Corporate credit card	150	-	-	-	-
Vehicle and asset finance	4,100	-	-	-	-
Guarantees by bank	255	-	-	-	-

Notes to the Annual Financial Statements (continued)

20. Non-current Assets Held-for-Sale

Gammatec NDT Supplies (Pty) Ltd approved a decision to sell Erf 943 and Erf 1003 (both properties are in Vereeniging) on 1 October 2010. A plan has been put in place to actively find a buyer for the properties.

Assets and Liabilities

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Non-current assets held-for-sale					
Property, plant and equipment	2,130	-	-	-	-

21. Share Capital

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Authorised					
500,000,000 Ordinary shares of R1 each	500,000	500,000	500,000	500,000	500,000
Number of shares issued:					
Reported as at 31 March 2011	2,205,000	2,205,000	2,205,000	2,205,000	2,205,000
Issued					
Ordinary	2,205	2,205	2,205	2,205	2,205

22. Revaluation Reserve

The revaluation reserve consists of a fair value adjustment to the non-interest bearing loan from Linde Electronics South Africa (Pty) Ltd and fair value adjustments to the land and buildings of the Company and Group.

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Fair value adjustment on loan	1,888	1,882	-	-	-
Fair value adjustment to land and buildings	332,224	321,595	332,700	332,606	-
Prior period error	-	-	(29,140)	(29,140)	-
	334,112	323,477	303,560	303,466	-

23. Fair Value Adjustment Assets Available-for-sale Reserve

The fair value adjustment assets available-for-sale reserve comprises all fair value adjustments on available-for-sale financial instruments. When an asset or liability is derecognised, the fair value adjustment relating to that asset or liability is transferred to profit or loss. The reserve was reduced to below zero in 2009 due to losses made on the revaluation of assets available-for-sale investments to fair value in accordance with IAS 39.

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Available-for-sale financial instruments	1,170	113	1,166	111	(2,852)

24. Other Financial Liabilities

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Held at amortised cost					
<i>Nedbank</i>					
The unsecured loan is interest bearing at prime less 2%. The loan is repayable in monthly instalments of R264. The last date for repayment was 1 March 2011.	-	2,924	-	-	-
<i>Standard Bank</i>					
The loan is unsecured, bears interest at 14.6% and is repayable in equal monthly instalments of R15.	373	414	-	-	-
<i>Standard Bank</i>					
The loan is unsecured, bears interest at 11.5% and is repayable in equal monthly instalments of R42.	1,793	2,291	-	-	-
<i>Standard Bank</i>					
The loan is unsecured, bears interest at 14.6% and is repayable in equal monthly instalments of R15.	-	74	-	-	-
	2,166	5,703	-	-	-
Non-current liabilities					
At amortised cost	2,166	2,162	-	-	-
Current liabilities					
At amortised cost	-	3,541	-	-	-
	2,166	5,703	-	-	-

Notes to the Annual Financial Statements (continued)

25. Finance Lease Obligation

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Minimum lease payments due					
- within one year	1,630	1,662	-	-	-
- in second to fifth year inclusive	1,346	1,076	-	-	-
	2,976	2,738	-	-	-
less: future finance charges	(451)	(267)	-	-	-
Present value of minimum lease payments	2,525	2,471	-	-	-
Present value of minimum lease payments due					
- within one year	1,354	1,476	-	-	-
- in second to fifth year inclusive	1,171	995	-	-	-
	2,525	2,471	-	-	-
Non-current liabilities	1,320	995	-	-	-
Current liabilities	1,205	1,476	-	-	-
	2,525	2,471	-	-	-

The average lease term was 3–6 years and the average effective borrowing rate was 13.0% (2010: 13.0%; 2009: 14.2%).

Interest rates are linked to prime at the contract date. All leases have fixed repayments and no arrangements have been entered into for contingent rent.

These obligations relate to borrowings by Fluoro Pack (Pty) Ltd and NTP Logistics (Pty) Ltd from Nedbank and borrowings of Gammatec NDT Supplies (Pty) Ltd from Stannic. These obligations are interest bearing and are repayable in monthly instalments until the settlement date.

The Group's obligations under finance leases are secured by the lessor's charge over the leased assets.

Market Risk

The carrying amounts of finance lease liabilities are denominated in the following currencies:

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Rand	2,525	2,471	-	-	-

The fair value of finance lease liabilities approximates their carrying amounts.

26. Deferred Income

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Non-current liabilities	255,206	187,932	255,206	187,932	149,213
Current liabilities	83,530	34,090	83,530	34,090	30,064
	338,736	222,022	338,736	222,022	179,277

27. Provisions and Employee Benefit Accruals

Reconciliation of provisions and employee benefit accruals

	Opening balance R'000	Additions R'000	Utilised during the year R'000	Reversed during the year R'000	Change in discount factor R'000	Total R'000
Group – 2011						
Decontamination and waste disposal	47,613	86,693	(11,872)	(2,290)	(433)	119,711
Employee benefit accruals	62,988	45,556	(39,379)	(373)	-	68,792
Provision for PRML buy-out	-	5,039	-	-	-	5,039
Provision for insurance fund	1,281	94	-	(1,375)	-	-
After-reactor management cycle	12,463	926	-	-	-	13,389
	124,345	138,308	(51,251)	(4,038)	(433)	206,931
Group – 2010						
Decontamination and waste disposal	39,389	9,024	-	-	(800)	47,613
Employee benefit accruals	54,918	31,187	(23,117)	-	-	62,988
Provision for insurance fund	1,236	45	-	-	-	1,281
After-reactor management cycle	10,619	1,844	-	-	-	12,463
	106,162	42,100	(23,117)	-	(800)	124,345
Company – 2011						
Decontamination and waste disposal	40,655	34,972	-	(2,290)	-	73,337
Employee benefit accruals	42,280	24,973	(23,310)	-	-	43,943
Provision for PRML buy-out	-	5,039	-	-	-	5,039
Provision for insurance fund	1,281	94	-	(1,375)	-	-
After-reactor management cycle	12,463	926	-	-	-	13,389
	96,679	66,004	(23,310)	(3,665)	-	135,708

Notes to the Annual Financial Statements (continued)

27. Provisions and Employee Benefit Accruals (continued)

Reconciliation of provisions and employee benefit accruals (continued)

	Opening balance	Additions	Utilised during the year	Total
Company – 2010				
Decontamination and waste disposal	32,275	8,380	-	40,655
Employee benefit accruals	38,340	25,312	(21,372)	42,280
Provision for insurance fund	1,236	45	-	1,281
After-reactor management cycle	10,619	1,844	-	12,463
	82,470	35,581	(21,372)	96,679

Company – 2009				
Environmental rehabilitation	22,248	10,027	-	32,275
Employee benefit accruals	32,574	23,800	(18,034)	38,340
Provision for insurance fund	1,236	-	-	1,236
Other provisions	7,821	2,798	-	10,619
	63,879	36,625	(18,034)	82,470

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Non-current liabilities	136,074	61,357	89,700	54,399	44,130
Current liabilities	70,857	62,988	46,008	42,280	38,340
	206,931	124,345	135,708	96,679	82,470

Provision for decontamination and waste disposal:

Provision is made for the decontamination of commercial plants and disposal of the resulting waste. The annual transfer is based on the latest available cost information. The Company was awarded a license from the NNR to transport the waste to Vaalputs on 15 March 2011.

Accrual for employee benefits:

The cost of leave days due to employees as well as thirteenth cheques payable has been accrued for. The accrual will be realised during the following year.

Provision for insurance fund:

Provision is made to cover potential self insured losses not covered externally. The annual provision is based on the excess investment income over claims experienced. The provision has not been utilised to date and it is expected that it will not be utilised during the next financial year.

Provision for after-reactor management cycle:

Provision is made over a thirty year period for the management of the Vaalputs disposal site after its final closure. The annual transfer is based on the latest available cost information. It is expected that the economic benefits will flow in ten years, at the end of the thirty year period.

Provision for PRML buy-out:

Provision is made for a buy-out of the post-retirement medical aid liability (PRML) of employees under the age of 46. The total liability of those qualifying employees who accepted the offer amounted to R8,583,914. This amount will be paid in three equal annual instalments of which the first instalment was paid on 31 March 2011.

It is envisaged that, based on the current information available, any additional liability in excess of the amounts provided will not have a material adverse effect on the Group's financial position, liquidity or cash flow.

28. Trade and Other Payables

	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Trade payables	77,423	81,008	19,390	18,014	25,184
Amounts received in advance	5,486	6,204	22,448	1,408	1,408
VAT	1,438	632	1,390	-	-
Deferred grants	2,892	75,613	-	72,440	77,860
Accrued expenses	10,784	20,067	959	-	-
Other payables	71,065	34,558	50,787	32,772	39,668
	169,088	218,082	94,974	124,634	144,120
Fair value of trade and other payables					
Trade payables	169,088	218,082	94,974	124,634	144,120

Trade and other payables are initially measured at fair value, and are subsequently measured at amortised cost using the effective interest rate method. The carrying value of trade and other payables is increased by an interest income of R6,685 (2010: R3,379; 2009: R663) to discount the carrying value to amortised cost for the Company and an interest charge of R4,099 (2010: R612; 2009: R2,475) for the Group.

The average credit period on purchases is 30 days from date of statement. The Company and Group settles payments to creditors on average 30 days from receipt of the statements. The Company and Group has financial risk management policies in place to ensure that all payables are paid within the credit timeframe.

Notes to the Annual Financial Statements (continued)

29. Financial Liabilities by Category

The accounting policies for financial instruments have been applied to the line items below:

	Financial liabilities at amortised cost R'000	Total R'000
Group – 2011		
Finance lease obligation	2,525	2,525
Loans from Group Companies	2,530	2,530
Loans from minority shareholders	882	882
Other financial liabilities	2,166	2,166
Trade and other payables	169,087	169,087
Bank overdraft	12,110	12,110
	189,300	189,300
Group – 2010		
Financial lease obligation	2,471	2,471
Loans from Group Companies	2,352	2,352
Loans from minority shareholders	1,700	1,700
Other financial liabilities	5,703	5,703
Trade and other payables	218,082	218,082
Bank overdraft	668	668
	230,976	230,976
Company – 2011		
Trade and other payables	94,974	94,974
Company – 2010		
Trade and other payables	124,634	124,634
Company – 2009		
Trade and other payables	144,120	144,120

30. Revenue

	Group		Company	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
Sale of goods	1,107,135	1,049,014	312,199	247,559
Government grants	476,780	446,485	476,780	446,485
Other grants	28,120	25,442	17,753	16,079
	1,612,035	1,520,941	806,732	710,123
The amount included in revenue arising from government grants is as follows:				
Operating activities	401,428	362,766	401,428	362,766
Decommissioning of strategic plants	67,069	67,049	67,069	67,049
LEU Fuel and conversion	36	7,202	36	7,202
Security	8,247	9,468	8,247	9,468
	476,780	446,485	476,780	446,485
Other grant income	28,120	25,442	17,753	16,079

Operating profit for the year is stated after accounting for the following:

The government grant relating to operating activities is primarily utilised to fund research and development expenses, non-commercial overheads, supplementary activities as required by the Nuclear Energy Act, No. 46 of 1999, costs for discarding radioactive waste and for storage of irradiated nuclear fuel.

The South African government has an obligation to discharge nuclear liabilities resulting from previous strategic nuclear programmes which includes decommissioning and decontamination of disused historic facilities. The Minister of the Department of Energy is charged with this responsibility on behalf of government. A Nuclear Liabilities Management Plan (NLMP) was approved by parliament in February 2007. The plan indicates an amount of R1,827 million to be applied over a period up to 2035.

Necsa, as a statutory body created in terms of the Nuclear Energy Act, has been delegated with certain responsibilities in this regard. It annually receives funds to apply to the decommissioning and decontamination process in terms of the NLMP. Funds received by Necsa for this purpose and not utilised at year end are accounted for as deferred grants.

31. Cost of Sales

	Group		Company	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
Sale of goods				
Cost of services and goods sold	710,090	649,054	200,995	205,446
	710,090	649,054	200,995	205,446

Notes to the Annual Financial Statements (continued)

32. Operating Profit/(Loss)

Operating profit/(loss) for the year is stated after accounting for the following:

	Group		Company	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
Income from subsidiaries				
Dividends	-	-	28,586	37,950
Interest	-	-	1,614	2,356
	-	-	30,200	40,306
Operating lease charges				
Premises				
- Contractual amounts	2,666	1,684	702	53
Motor vehicles				
- Contractual amounts	6,311	-	6,311	-
Equipment				
- Contractual amounts	5,110	3,868	4,915	3,859
Lease rentals on operating lease				
- Contractual amounts	942	254	-	-
	15,029	5,806	11,928	3,912
(Loss)/profit on sale of property, plant and equipment	(339)	(167)	(18)	(271)
(Loss)/profit on sale of other financial assets	(658)	(969)	(742)	(969)
(Loss)/profit on available-for-sale financial asset	(2,934)	-	-	-
Reversal of impaired property, plant and equipment	-	(103)	-	-
Impairment on subsidiary	-	-	-	17,141
Impairment on trade and other receivables	-	5	-	-
Impairment on loans to Directors, managers and employees	336	-	-	-
(Profit)/loss on exchange differences	11,577	3,080	(365)	2,145
Depreciation on property, plant and equipment	72,439	47,435	42,650	33,495
Employee costs	587,035	525,170	504,112	463,910
Consulting and professional fees	6,595	15,428	14,072	15,070

33. Investment Revenue

	Group		Company	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
Dividend revenue				
Subsidiaries – Local	-	-	28,524	37,950
Listed financial assets – Local	64	48	62	47
	64	48	28,586	37,997
Interest revenue				
Inter-company loans	-	-	1,614	2,356
Available-for-sale financial assets	-	1,910	-	1,910
Bank	39,273	32,504	19,138	19,264
Interest charged on trade and other receivables	17	112	-	44
Fair value adjustments	13,059	20,249	5,238	3,299
Interest received from SARS	67	-	-	-
	52,416	54,775	25,990	26,873
	52,480	54,823	54,576	64,870

34. Finance Costs

	Group		Company	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
Shareholders	39	117	-	-
Non-current borrowings	300	421	-	-
Trade and other payables	16	1,561	16	1
Finance leases	100	161	-	-
Bank	831	400	-	-
Amortisation of held-to-maturity liabilities	704	839	-	-
Late payment of tax	-	47	-	-
Fair value adjustments	12,827	17,409	4,972	2,575
	14,817	20,955	4,988	2,576

Deemed interest of R178 (2010: R195) was charged during the year. This is included in the amortisation of held to maturity liabilities.

Notes to the Annual Financial Statements (continued)

35. Income Tax Expense

	Group		Company	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
South African Normal Taxation				
Current				
Local income tax – current period	77,142	52,210	-	(23,983)
Local income tax – recognised in current tax for prior periods	(1,462)	-	(1,296)	-
STC	-	224	-	-
	75,680	52,434	(1,296)	(23,983)
Deferred				
Originating and reversing temporary differences	(6,760)	(6,040)	-	-
	68,920	46,394	(1,296)	(23,983)
Reconciliation of the Tax Expense				
Reconciliation between accounting profit and tax expense.				
Accounting profit/(loss)	198,379	210,114	(9,752)	(26,157)
Tax at the applicable tax rate of 28% (2010: 28%)	55,546	58,832	(2,731)	(7,324)
Tax effect of adjustments on taxable income				
Permanent and temporary differences due to non-taxable income and non-deductible expenses	12,105	(3,939)	-	-
Permanent difference due to tax status	2,731	(8,499)	2,731	(16,659)
Prior year	(1,462)	-	(1,296)	-
	68,920	46,394	(1,296)	(23,983)

STC is payable at a rate of 10% on the distribution of profits. STC is calculated based on the “net amount” as defined in the income tax act. The “net amount” represents the amount of dividends declared during a dividend cycle less certain dividend income that accrued to the entity during the applicable dividend cycle.

The South African Revenue Services has approved an exemption in respect of the South African Nuclear Energy Corporation Limited under section 10(1)(cA)(i) of the Income Tax Act subject to certain conditions. No provision is therefore made for tax for the Necsa Company.

36. Auditors' Remuneration

	Group		Company	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
Fees	4,531	3,802	2,400	2,110
Adjustment for previous period	1,332	(15)	357	(15)
	5,863	3,787	2,757	2,095

37. Other Comprehensive Income

	Gross R'000	Tax R'000	Net R'000
Components of Other Comprehensive Income – Group – 2011			
Exchange differences on translating foreign operations			
Exchange differences arising during the year	73	-	73
Available-for-sale financial assets adjustments			
Gains and losses arising during the year	1,057	-	1,057
Movements on revaluation			
Gains on property revaluation	20,237	-	20,237
Total	21,367	-	21,367
Components of Other Comprehensive Income – Group – 2010			
Exchange differences on translating foreign operations			
Exchange differences arising during the year	475	-	475
Available-for-sale financial assets adjustments			
Gains and losses arising during the year	2,967	-	2,967
Movements on revaluation			
Gains on property revaluation	321,595	-	321,595
Total	325,037	-	325,037

Notes to the Annual Financial Statements (continued)

37. Other Comprehensive Income (continued)

	Gross R'000	Tax R'000	Net R'000
Components of Other Comprehensive Income – Company – 2011			
Available-for-sale financial assets adjustments			
Gains and losses arising during the year	1,055	-	1,055
Movements on revaluation			
Gains on property revaluation	10,129	-	10,129
Total	11,184	-	11,184

Components of Other Comprehensive Income – Company – 2010

Available-for-sale financial assets adjustments			
Reclassification adjustments for available-for-sale financial assets	2,963	-	2,963
Movements on revaluation			
Gains/(losses) on property revaluation	303,466	-	303,466
Total	306,429	-	306,429

38. Cash Generated from Operations

	Group		Company	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
Profit/(loss) before taxation	198,379	210,115	(9,752)	(26,157)
Adjustments for:				
Depreciation and amortisation	72,406	47,435	42,650	33,495
Loss on sale of assets	339	1,136	18	1,240
Profit on available-for-sale financial asset	(2,934)	-	-	-
Change in discount factor	440	-	-	-
Income from equity accounted investments	145	1,049	-	-
Dividends received	(64)	(48)	(28,586)	(37,997)
Interest received	(39,358)	(34,526)	(20,752)	(23,574)
Finance costs	1,990	2,707	16	1
Fair value adjustments – Investment properties	(5,486)	(13,300)	(14,051)	(13,771)
Impairment loss	1,194	697	-	17,141
Impairment of inventory	(392)	-	(404)	(203)
Movements in retirement benefit assets and liabilities	29,583	20,027	36,359	17,348
Movements in provisions	133,837	18,183	62,339	14,209
Deemed Interest	-	195	-	-
Forward exchange contract (FEC) liabilities	-	-	1,717	-
Bad debts written off	3,655	-	1,754	-
Straight lining of leases	87	1,180	87	1,180
Fair value adjustments to trade payables	13,358	3,069	530	341
Unrealised profit on valuation of open FEC liabilities	-	-	-	-
Fair value adjustments to trade receivables	(13,060)	(2,184)	(1,428)	(1,246)
Movement in foreign currency translation reserve	-	589	-	-
Adjustment of fair value of available-for-sale financial assets	-	-	(2,934)	-
Movement in bad debt provision	(944)	5,213	(724)	2,675
Impairment of inventory	-	1,519	-	-
Unrealised profit on valuation of open FEC liabilities	11,577	8,128	-	356
Movement in working capital				
Trade and other payables	(73,942)	(16,449)	(31,905)	(20,181)
Deferred income	116,714	42,746	116,714	42,745
Trade and other receivables	(17,045)	(44,133)	(63,358)	17,160
Inventories	(67,196)	20,325	(23,408)	10,012
Provision	(51,251)	-	(23,310)	-
Finance leases	(1,916)	-	-	-
	310,116	273,673	41,572	34,774

Notes to the Annual Financial Statements (continued)

39. Tax (Paid)/Refunded

	Group		Company	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
Balance at beginning of the year	3,891	(20,897)	-	(23,983)
Current tax for the year recognised in profit or loss	(68,919)	(52,434)	1,296	23,983
Movement in deferred tax	(6,760)	-	-	-
Adjustment in respect of businesses sold and acquired during the year including exchange rate movements	-	(2,040)	-	-
Balance at end of the year	(3,430)	(3,891)	-	-
	(75,218)	(79,262)	1,296	-

40. Business Combinations

	Group		Company	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
Aggregated Business Combinations				
Property, plant and equipment	-	6,752	-	-
Intangible assets	-	1,308	-	-
Loans to Group Companies	-	5,457	-	-
Inventories	-	14,732	-	-
Trade and other receivables	-	27,159	-	-
Cash and cash equivalents	-	10,394	-	-
Deferred tax	-	(657)	-	-
Loans and obligations	-	(15,382)	-	-
Current tax payable	-	(2,040)	-	-
Trade and other payables	-	(25,538)	-	-
Bank overdraft	-	(912)	-	-
Total identifiable net assets	-	21,273	-	-
Non-controlling interest	-	(9,573)	-	-
Goodwill	-	11,357	-	-
	-	23,057	-	-
Consideration Paid				
Total cash consideration paid	-	(23,057)	-	-
Net cash outflow on acquisition				
Cash consideration paid	-	(23,057)	-	-
Cash acquired	-	9,482	-	-
	-	(13,575)	-	-

Gammatec NDT Supplies (Pty) Ltd

On 1 October 2009 the Group acquired 55% of the voting equity interest of Gammatec NDT Supplies (Pty) Ltd which resulted in the Group obtaining control over Gammatec NDT Supplies (Pty) Ltd.

Gammatec NDT Supplies (Pty) Ltd was established in 1981 and is a registered Limited Liability Company (Registration No. 1981/001355/07) incorporated in South Africa in terms of the Companies Act. Gammatec NDT Supplies (Pty) Ltd has the following wholly or partially owned subsidiaries which forms the Gammatec Group of Companies: Gamma Film Industries (100%), Gammatec Middle East Trading Company (25% shareholding + 51% voting rights), Gammatec Aseana (90%) and Lectromax Australia (90%). Lectromax Australia has a wholly owned subsidiary, Lectromax New Zealand.

The financial year end of Lectromax Australia and Lectromax New Zealand changed from June to March during the 2011 year.

Gammatec NDT Supplies (Pty) Ltd actively export to countries worldwide, with their Head Office in Vereeniging South Africa. Their offices in Dubai (UAE), Kuala Lumpur (Malaysia) and Melbourne (Australia), provide a high profile “ground floor” presence in these regions.

Gammatec NDT Supplies (Pty) Ltd stocks and manufactures a range of non-destructive testing equipment, accessories and consumables. The shareholding in Gammatec NDT Supplies (Pty) Ltd will provide the Group with access to new markets and products and it is expected to reduce costs through economies of scale.

Goodwill of R11,357 arising from the acquisition is largely due to the Group’s expectations of the future income generating capabilities of the Gammatec Group of Companies as well as synergies and economies of scale expected from combining the operations of the entities. Goodwill is not deductible for income tax purposes.

	Group		Company	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
Fair value of assets acquired and liabilities assumed				
Property, plant and equipment	-	6,752	-	-
Intangible assets	-	1,308	-	-
Loans to Group Companies	-	5,457	-	-
Inventories	-	14,732	-	-
Trade and other receivables	-	27,159	-	-
Cash and cash equivalents	-	10,394	-	-
Deferred tax	-	(657)	-	-
Loans and obligations	-	(15,382)	-	-
Current tax payable	-	(2,040)	-	-
Trade and other payables	-	(25,538)	-	-
Bank overdraft	-	(912)	-	-
Total identifiable net assets	-	21,273	-	-
Non-controlling interest	-	(9,573)	-	-
Goodwill	-	11,357	-	-
	-	23,057	-	-
Non-controlling interest				
Non-controlling interest is measured at the non-controlling interests proportionate share of the acquiree's identifiable net assets.				
Acquisition date fair value of consideration paid				
Cash	-	(23,057)	-	-

Notes to the Annual Financial Statements (continued)

40. Business Combinations (continued)

Receivables Acquired

Receivables acquired per major class are as follows, as at acquisition date:

	2011			2010		
	Fair value R'000	Gross contractual amounts R'000	Contractual amounts not expected to be recovered R'000	Fair value R'000	Gross contractual amounts R'000	Contractual amounts not expected to be recovered R'000
Loans	-	-	-	5,457	5,457	-
Trade and other receivables	-	-	-	27,159	27,159	-
Total	-	-	-	32,616	32,616	-

41. Commitments

	Group		Company	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
Authorised Capital Expenditure				
Already contracted for but not provided for				
- Property, plant and equipment	81,545	16,782	43,169	5,311
This committed expenditure relates to plant and equipment and will be financed through ordinary trading operations.				
Operating Leases – As Lessee (Expense)				
Minimum lease payments due				
- within one year	8,003	7,327	6,778	6,603
- in second to fifth year inclusive	9,681	22,257	5,860	22,257
	17,684	29,584	12,638	28,860

Operating lease payments represent rentals payable by the Group for certain of its motor vehicles and office equipment. Leases are negotiated for an average term of four years.

42. Contingencies

By their nature, contingencies will only be resolved when one or more future events occur or fail to occur. The assessment of such contingencies inherently involves the exercise of significant judgement and estimates of the outcome of future events.

Litigation and other judicial proceedings as a rule raise difficult and complex legal issues and are subject to uncertainties and complexities including, but not limited to, the facts and circumstances of each particular case, issues regarding the jurisdiction in which each suit is brought and differences in applicable law. Upon resolution of any pending legal matter, the Company may be forced to incur charges in excess of the presently established

provisions and related insurance coverage. It is possible that the financial position, results of operations or cash flows of the Company could be materially affected by the unfavourable outcome of litigation.

Guarantees:

Guarantees of R0.41 million (2010: R0.16 million) were issued to financial institutions as collateral security for housing loans granted by financial institutions to employees. Performance guarantees of R1.85 million (2010: R1.85 million) were issued to Absa Bank for a customer.

Legal claims:

A possible legal obligation exists for the Group totalling R0.254 million (2010: R6.6 million).

These cases are currently being investigated by the Necsa Legal division.

The Group has a contingent liability arising from PAYE on travel allowances of R1,2 million. This constitutes the taxation payable and does not include any interest and penalties that may arise. The process of addressing the matter is still in progress and it may result in it being classified as fruitless and wasteful expenditure.

A letter of support to Linde Electronics South Africa (Pty) Ltd was approved by the Board of Directors of Pelchem (Pty) Ltd, for the financial year of Linde Electronics South Africa (Pty) Ltd ended 31 December 2010.

43. Related Parties

Relationships

Holding entity	Department of Energy
Subsidiaries	Refer to Note 8
Associates	Refer to Note 9
National government	All national government departments are regarded to be related parties in accordance with circular 4 of 2005: Guidance on the term "State controlled entities" in the context of IAS 24 – Related Parties, issued by the South African Institute of Chartered Accountants. No transactions are implicated simply by the nature of existence of the relationship between entities.
Directors and members of key management	All Directors have given general declarations of interest in terms of section 234 (3a) of the Companies Act. These declarations indicate that CEO, Dr RM Adam, holds a directorship in Pebble Bed Modular Reactor (Pty) Ltd, which is classified as a related party to the Group.

Details of Directors and key management remuneration paid are disclosed in Note 44.

National Spheres of Government

Necsa is a schedule 2 Major Public Entity in terms of the Public Finance Management Act, No. 1 of 1999 as amended by Act No. 29 of 1999, and therefore falls within the national spheres of government. As a consequence, Necsa has a significant number of related parties being entities that fall within the three different national spheres of government. Amounts due from/(to) these entities are subject to the same terms of conditions as normal trade receivables and trade payables.

In addition, Necsa has a related party relationship with its subsidiaries (Note 8) and associates (Note 9). Unless specifically disclosed, these transactions are concluded at arm's length and the Group is able to transact with any entity.

Notes to the Annual Financial Statements (continued)

43. Related Parties (continued)

The following is a summary of transactions with related parties during the year and balances due at year end:

	Group		Company	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
National public business enterprises				
Services rendered	-	672	-	672
Major public entities				
Services rendered	22,954	10,334	22,394	10,334
Services received	(46,878)	(43,301)	(46,617)	(43,301)
Trade amount due (to)/from	12,467	1,898	11,828	1,898
National public entities				
Services rendered	1,056	249	1,027	249
Services received	(52,613)	(22,176)	(20,570)	(22,176)
Trade amount due (to)/from	135	18	146	18
National government business enterprises				
Services rendered	160	104	160	104
Services received	(6,195)	(7,496)	(6,195)	(7,496)
Trade amount due (to)/from	9	(496)	9	(496)
National government departments				
Services rendered	518,378	578,008	518,378	599,708
Services received	(189,920)	(168,483)	(189,920)	(146,820)
Trade amount due (to)/from	1,285	2,623	1,285	2,623
Subsidiaries				
Services rendered	-	-	222,451	227,771
Services received	-	-	(524)	(1,288)
Loans to/from subsidiaries	-	-	24,284	23,210
Trade amount due (to)/from	-	-	57,934	31,951
Associates				
Services rendered	47,362	55,192	-	129
Services received	(1,484)	-	-	-
Loans to/from associates	(2,351)	(2,352)	-	-
Trade amount due (to)/from	20,294	-	-	-
Minority shareholders				
Services rendered	50	1,523	-	-
Services received	(1,013)	-	-	-
Loans to/(from) shareholders	(1,509)	(1,700)	-	-
Trade amount due (to)/from	(203)	-	-	-
Other				
Minority shareholders: Interest paid	(1)	-	-	-
Directors of Gammatec Group: Interest paid	(103)	-	-	-
PBMR	(56)	-	(56)	-
NIASA	202	-	202	-
Compensation to Directors and other key management				
Short-term employee benefits	34,382	27,513	-	-

44. Directors' Emoluments

The following tables set out the Directors' emoluments and emoluments paid to general managers of Necsca Company.

The South African Nuclear Energy Corporation

Non-executive	Directors fees R'000	Total R'000
2011		
Dipico M	34	34
Greyvenstein G	3	3
Shaik-Peremanov N	56	56
Tshelane P	57	57
Benghu NM	51	51
Majozi T	34	34
Noxaka LN	81	81
	316	316

2010		
Dipico M	20	20
Greyvenstein G	10	10
Lefoka MM	3	3
Shaik-Peremanov N	24	24
Sithole S	5	5
Tshelane P	56	56
Benghu NM	24	24
Mehlomakulu MB	3	3
Bharuth Ram K	5	5
Majozi T	17	17
Noxaka LN	23	23
	190	190

Executive	Taxable allowance R'000	Car allowance R'000	Retirement fund contribution R'000	Medical contributions R'000	Other company contributions R'000	Salary R'000	Bonus R'000	Total R'000
2011								
Adam R	-	-	313	-	23	1,902	-	2,238
2010								
Adam R	393	(6)	188	27	-	2,062	-	2,664

Notes to the Annual Financial Statements (continued)

44. Directors' Emoluments (continued)

General Managers	Taxable allowance R'000	Car allowance R'000	Retirement fund contribution R'000	Medical contributions R'000	Other company contribution R'000	Salary R'000	Bonus R'000	Total R'000
2011								
Dayaram N	317	-	218	-	17	1,077	-	1,629
De Villiers W van Z	32	-	246	-	16	1,188	-	1,482
Janneker CC	342	-	167	-	16	835	61	1,421
Terblanche APS	421	-	117	-	12	575	-	1,125
Shayi LJ	133	-	258	-	17	1,267	-	1,675
Van der Bijl AC	267	-	238	-	18	1,164	-	1,687
Moagi DM	425	-	206	-	18	1,009	-	1,658
R Masango	342	-	167	-	14	820	-	1,343
	2,279	-	1,617	-	128	7,935	61	12,020
2010								
Dayaram N	238	54	98	-	14	831	-	1,235
De Villiers W van Z	67	18	134	-	15	1,140	-	1,374
Diaz MS	41	27	20	-	4	159	-	251
Julies EL	95	54	112	-	13	957	-	1,231
Shayi LJ	65	46	114	-	13	960	-	1,198
Moagi DM	184	-	52	-	7	439	-	682
Van der Bijl AC	95	27	129	-	15	1,135	-	1,401
	785	226	659	-	81	5,621	-	7,372

The performance bonus to CC Janneker in 2011 was paid as a result of the prior financial year's performance. Group Executives did not participate in 2009/10 performance bonus. CC Janneker was appointed as Group Executive: Marketing and Communication on 1 June 2010.

Amounts disclosed as bonuses in the prior period for the Executive Director and general managers have been correctly classified as salary, as the nature of these payments is thirteenth cheques, which are part of the total cost to company.

The following Necsca Directors have not received any emoluments for the 2011 financial year: AS minty, JB Keshaw, LF Aphane, LM Gumbi, VZ Msimang and XM Mabhongo.

Details of Service Contracts

No Director has a notice period in excess of one year and no Director's contract makes provision for predetermined compensation on termination exceeding one year's salary and benefits in kind. No Directors are proposed for election or re-election at the forthcoming annual general meeting. All the Directors have a service contract.

45. Prior Period Errors

An investment property was incorrectly classified as owner occupied at 31 March 2010. The error have been corrected retrospectively and resulted in adjustments indicated below. The above adjustment does not affect the Group due to the fact that the building is owner occupied on Group level.

In the prior year errors were discovered which related to 2009. The detail of the errors are as follows:

Profit made on other financial assets classified as available-for-sale in terms of IAS 39, have been incorrectly treated in prior financial years by the Company by realising it to profit and loss when it should have been recognised in other comprehensive income in terms of IAS 39 paragraph 55 (b). The comparative amounts for 2009 have been restated.

Since the incorporation of the Company, government grants have been received on an annual basis for income and asset expenditure. The grants related to assets have a primary condition that they be utilised to purchase, construct or otherwise acquire long-term assets.

As per IAS 20, paragraph 24, there are two methods for presentation of this type of grant. The Company has not applied either method since incorporation. The Company has corrected its accounting policy with respect to the treatment of grants related to assets in order to conform with the treatment of IAS 20. The Group now accounts for grants relating to assets as deferred income that is recognised in profit or loss on a systematic basis over the useful life of the asset.

The errors have been corrected retrospectively and resulted in adjustments as follows:

	Group		Company	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
Statement of financial position				
Property, plant and equipment	-	-	(30,726)	-
Investment properties	-	-	30,726	-
Opening retained earnings	-	(177,129)	-	(177,129)
Reserves	-	2,147	(29,141)	2,147
Deferred income	-	179,276	-	179,276
Statement of comprehensive income				
Gain on fair value adjustment of Investment property	-	-	29,141	-

46. Risk Management

Capital Risk Management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

The capital structure of the Group consists of debt, which includes the borrowings disclosed in Notes 10, 11, 24, 25, cash and cash equivalents disclosed in Note 19, and equity as disclosed in the statement of financial position.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders and issue new shares or sell assets to reduce debt in accordance with a delegated level of authority.

Consistent with others in the industry, the Group monitors capital on the basis of the gearing ratio as well as debt to equity ratio.

This ratio is calculated as net debt divided by total capital. Net debt is calculated as total borrowings (including 'current and non-current borrowings' as shown in the statement of financial position) less cash and cash equivalents. Total capital is calculated as 'equity' as shown in the statement of financial position plus net debt.

Notes to the Annual Financial Statements (continued)

46. Risk Management (continued)

The Group has transactions with international parties and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the US dollar. Foreign exchange risk arises from future commercial transactions and recognised assets and liabilities.

There are no externally imposed capital requirements. There have been no changes to what the entity manages as capital, the strategy for capital maintenance or externally imposed capital requirements from the previous year.

The decrease in the Group gearing ratio during the financial year ended 31 March 2011 resulted due to the increase in cash. The increase in the Company gearing ratio is due to the increase in deferred income and the PRMA due to the phased approach implementation of assumptions by 31 March 2012.

		Group		Company	
		2011 R'000	2010 R'000	2011 R'000	2010 R'000
Total debt		1,094,285	937,831	913,390	773,941
Less: Cash and cash equivalents	19	470,622	325,704	109,896	103,406
Net debt		623,663	612,127	803,494	670,535
Total equity		709,889	559,112	469,950	467,222
Total capital		1,333,552	1,171,239	1,273,444	1,137,757
Gearing ratio		47%	52%	63%	59%

Financial Risk Management

The Group's activities expose it to a variety of financial risks: market risk (including currency risk, fair value interest rate risk, cash flow interest rate risk and price risk), credit risk and liquidity risk.

The Group's overall risk management program focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Group's financial performance. Risk management is carried out by a central treasury department (Group Treasury) under policies approved by the Board of Directors. Group Treasury identifies, evaluates and hedges financial risks in close co-operation with the Group's operating units. The Board of Directors oversees overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest rate risk, credit risk and use of investment of excess liquidity.

Liquidity Risk

Prudent liquidity risk management implies maintaining sufficient cash and marketable securities, the availability of funding through an adequate amount of committed credit facilities and the ability to close out market positions. Due to the dynamic nature of the underlying businesses, each subsidiary's Treasury maintains flexibility in funding by maintaining availability under committed credit lines.

The Group's risk to liquidity is a result of the funds available to cover future commitments. The Group manages liquidity risk through an ongoing review of future commitments and credit facilities.

Cash flow forecasts are prepared and adequate utilised borrowing facilities are monitored.

The table below analyses the Group's financial liabilities into relevant maturity groupings based on the remaining period at the statement of financial position to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows. Balances due within 12 months equal their carrying balances as the impact of discounting is not significant.

	Less than 1 year R'000	Between 1 and 2 years R'000	Between 2 and 5 years R'000	Over 5 years R'000
Group				
At 31 March 2011				
Borrowings	2,087	6,016	-	-
Trade and other payables	169,088	-	-	-
At 31 March 2010				
Borrowings	6,717	5,509	-	-
Trade and other payables	218,082	-	-	-
Company				
At 31 March 2011				
Trade and other payables	94,974	-	-	-
At 31 March 2010				
Trade and other payables	124,634	-	-	-

Notes to the Annual Financial Statements (continued)

46. Risk Management (continued)

The tables below analyse the Group's foreign exchange contracts which will be settled on a gross basis into relevant maturity groupings based on the remaining period at the statement of financial position to the contractual maturity date. The amount disclosed in the table are the contractual undiscounted cash flows. Balances due within 12 months equal their carrying balances as the impact of discounting is not significant.

	Less than 1 year R'000	Between 1 and 2 years R'000	Between 2 and 5 years R'000	Over 5 years R'000
Group				
At 31 March 2011				
Forward foreign exchange contracts – cash flow hedges				
• Outflow	25,429	-	-	-
• Inflow	112,641	-	-	-
Forward foreign exchange contracts – held for trading				
• Outflow	17,540	-	-	-
• Inflow	91,219	-	-	-
At 31 March 2010				
Forward foreign exchange contracts – cash flow hedges				
• Outflow	1,255	-	-	-
• Inflow	2,247	-	-	-
Forward foreign exchange contracts – held for trading				
• Outflow	81,782	-	-	-
• Inflow	135,002	-	-	-
Company				
At 31 March 2011				
Forward foreign exchange contracts – cash flow hedges				
• Outflow	25,429	-	-	-
• Inflow	104,318	-	-	-
At 31 March 2010				
Forward foreign exchange contracts – cash flow hedges				
• Outflow	965	-	-	-
• Inflow	823	-	-	-

As at 31 March 2011, the aggregate amount of the unrealised profit under the forward foreign exchange contracts included in the profit is R2,444 (2010: R356) for the Company and R361 (2010: R2,336) for the Group. It is anticipated that the foreign exports and imports will take place within the next financial year.

The table below is a forecast of the liquidity for the Group as of 31 March 2011:

	2012 R'000	2013 R'000	2014 R'000
Opening balance for the period	470,622	498,845	651,677
Operating proceeds	1,936,985	2,231,550	2,378,929
Operating outflow	(1,645,839)	(1,736,795)	(1,862,126)
Cash outflows for investments	(270,929)	(360,899)	(440,122)
Movements in working capital	(5,037)	7,012	(8,995)
Borrowings	13,043	11,964	6,732
Closing balance for the period	498,845	651,677	726,095

The table below is a forecast of the liquidity for the Company as of 31 March 2011:

	2012 R'000	2013 R'000	2014 R'000
Opening balance for the period	109,896	100,543	100,543
Operating proceeds	1,103,046	1,226,421	1,171,737
Operating outflow	(993,291)	(1,008,524)	(1,023,420)
Cash outflows for investments	(160,372)	(275,940)	(183,661)
Movements in working capital	37,264	42,063	37,458
Cash inflows from financing activities	4,000	15,980	(2,116)
Closing balance for the period	100,543	100,543	100,541

Interest Rate Risk

As the Group has interest bearing assets, the Group's income and operating cash flows are dependent of changes in market interest rates.

The Group's interest rate risk arises from long term borrowings. Borrowings issued at variable rates expose the Group to cash flow interest rate risk. Borrowings issued at fixed rates expose the Group to fair value interest rate risk.

Notes to the Annual Financial Statements (continued)

46. Risk Management (continued)

Cash Flow Interest Rate Risk

Financial instrument	Current interest rate %	Due in less than 1 year R'000	Due in 1 to 2 years R'000	Due in 2 to 3 years R'000	Due in 3 to 4 years R'000	Due after 5 years R'000
Group						
Trade and other receivables – normal credit terms	-%	263,791	-	-	-	-
Loan from shareholder	9.00%	882	-	-	-	-
Loans to/(from) associates	7.00%	2,530	-	-	-	-
Cash in banking institutions	7.00%	482,732	-	-	-	-
FEC asset	-%	2,322	-	-	-	-
Trade and other payables	-%	169,088	-	-	-	-
Company						
Trade and other receivables – normal credit terms	-%	123,645	-	-	-	-
Cash in banking institutions	6.12%	109,896	-	-	-	-
Trade and other payables	-%	94,974	-	-	-	-

Credit Risk

Credit risk consists mainly of available-for-sale assets and trade debtors. The Company only deposits cash with major banks with high quality credit standing and limits exposure to any one counter party.

Trade receivables comprise a widespread customer base. Management evaluated credit risk relating to customers on an ongoing basis. If customers are independently rated, these ratings are used. Otherwise, if there is no independent rating, risk control assesses the credit quality of the customer, taking into account its financial position, past experience and other factors. Individual risk limits are set based on internal or external ratings in accordance with limits set by the Board. The utilisation of credit limits is regularly monitored. Sales to retail customers are settled in cash or using major credit cards. Credit guarantee insurance is purchased when deemed appropriate.

Financial assets exposed to credit risk at year end were as follows:

Financial instrument	Group		Company		
	2011 R'000	2010 R'000	2011 R'000	2010 R'000	2009 R'000
Nedbank A to A-	64,927	114,081	-	-	-
Absa AAA	103,862	104,904	101,691	103,154	83,625
Allan Gray AAA	35,798	43,564	35,798	43,564	26,177
Sanlam A+	1,079	10,108	1,079	10,108	10,298
Old Mutual AA	11,896	6,648	11,896	6,648	10,434
Linde Electronics South Africa	20,267	8,360	-	-	-
Columbus Stainless Steel	7,725	11,204	-	-	-
IRE	-	2,043	-	-	-
ANSTO	-	8,370	-	-	-
Investec	282,167	61,101	24,773	-	-
Lantheus Medical Imaging	12,825	42,264	-	-	-
Dyneon GMBH	6,454	-	-	-	-
Rand Merchant Bank	25,223	-	3,683	-	-
Nithon Medi physics	-	9,989	-	-	-
Standard Bank A to A-	18,257	-	-	-	-
Eczacibasi Monrol	11,672	-	-	-	-
Nihon Medi-Physics Co Ltd	11,612	-	-	-	-
GE Healthcare limited	10,156	-	-	-	-

Management does not expect any losses from non-performance of these counterparties.

Foreign Exchange Risk

Management has set up a policy to require Group Companies to manage their foreign exchange risk against their functional currency. The Group Companies are required to hedge their entire foreign exchange risk exposure with the Group Treasury. To manage their foreign exchange risk arising from future commercial transactions and recognised assets and liabilities, entities in the Group use forward contracts, transacted with Group Treasury. Foreign exchange risk arises when future commercial transactions or recognised assets or liabilities are denominated in a currency that is not the entity's functional currency.

The Group Treasury's risk management policy is to hedge between 75% and 100% of anticipated cash flows (mainly export sales and purchase of inventory) in each major foreign currency for the subsequent 12 months. Approximately 90% (2010: 100%; 2009: 100%) of projected sales in each major currency qualify as 'highly probable' forecast transactions for hedge accounting purposes.

Notes to the Annual Financial Statements (continued)

46. Risk Management (continued)

Foreign Currency Exposure at the End of the Reporting Period

	Group		Company	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
Cash and cash equivalents				
- US Dollar	1,660	-	-	-
- Euro	187	-	-	-
- GBP	386	-	-	-
- Other	2	-	-	-
Current assets				
- US Dollar	86,275	123,026	4,191	5,549
- Euro	31,194	33,417	57	838
- GBP	2,957	1,045	49	98
- Other	2,453	7,003	-	854
Liabilities				
- US Dollar	26,947	49,009	-	-
- Euro	19,027	10,043	143	-
- GBP	3,759	1,312	-	-
- Other	228	236	-	3

Forward Exchange Contracts which Relate to Future Commitments

Outstanding contracts	Average exchange rate	Forward currency '000	Notional value '000	Fair value '000
Group as at 31 March 2011				
US Dollar				
Less than 3 months	6.84	9,045	64,612	62,168
3 to 6 months	7.44	(87)	(700)	(633)
6 to 12 months	-	-	-	-
Euro				
Less than 3 months	9.73	4,042	39,527	39,280
3 to 6 months	9.86	367	3,501	3,576
6 to 12 months	9.90	91	872	905
Australian Dollar				
Less than 3 months	7.04	20	141	140
Group as at 31 March 2010				
US Dollar				
Less than 3 months	7.59	21,042	160,099	153,828
3 to 6 months	7.72	98	759	731
6 to 12 months	-	-	-	-
Euro				
Less than 3 months	10.11	1,594	16,609	15,771
3 to 6 months	10.64	2,507	29,094	25,326
6 to 12 months	11.82	1,174	13,871	12,080
UK Pound				
Less than 3 months	13.00	201	2,615	2,237
3 to 6 months	-	-	-	-
6 to 12 months	-	-	-	-
Company as at 31 March 2011				
US Dollar				
Less than 3 months	6.94	455	3,158	3,093
3 to 6 months	-	-	-	-
6 to 12 months	-	-	-	-
Euro				
Less than 3 months	9.70	1,916	18,864	18,590
3 to 6 months	9.75	291	2,747	2,841
6 to 12 months	9.90	91	872	905
Company as at 31 March 2010				
US Dollar				
Less than 3 months	7.59	243	1,867	1,787
3 to 6 months	-	-	-	-
6 to 12 months	-	-	-	-
Euro				
Less than 3 months	9.93	-	1	1
3 to 6 months	-	-	-	-
6 to 12 months	-	-	-	-
UK Pound				
Less than 3 months	13.00	201	2,615	2,237
3 to 6 months	-	-	-	-
6 to 12 months	-	-	-	-

Notes to the Annual Financial Statements (continued)

46. Risk Management (continued)

The Group reviews its foreign currency exposure, including commitments on an ongoing basis. The Company utilises its foreign exchange contracts to hedge foreign exchange exposure.

Management has set up a policy to require Group Companies to manage their foreign exchange risk against their functional currency. Major Group entities are required to hedge their entire foreign exchange risk exposure with the Group Treasury management consultant to manage their foreign exchange risk arising from future commercial transactions and recognised assets and liabilities, entities in the Group use forward contracts, transacted with the Treasury management consultant. Foreign exchange risk arises when future commercial transactions and recognised assets or liabilities are denominated in a currency that is not the entity's functional currency.

These forward exchange contracts (FECs) are designated as fair value hedges through profit and loss. These forward exchange contracts are assessed on an ongoing basis to ensure that the hedging is effective within the range of between 80% and 125% throughout the reporting period.

Price Risk

The Group is exposed to equity securities price risk because of investments held by the Group and classified on the consolidated statement of financial position either as available-for-sale or at fair value through profit or loss. The Group is not exposed to commodity price risk. To manage its price risk arising from investments in equity securities, the Group diversifies its portfolio. Diversification of the portfolio is done in accordance with the limits set by the Group.

47. 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.

The ability of the Company and the Group to continue as a going concern is dependent on a number of factors. The most significant of these is that the shareholder, the Department of Energy and Directors, continue to procure funding for the ongoing operations of the Company.

48. Public Finance Management Act

	Group		Company	
	2011 R'000	2010 R'000	2011 R'000	2010 R'000
Fruitless and wasteful expenditure				
Interest and penalties incurred due to late payments of tax and VAT to SARS ¹	106	138	-	-
Fees and penalties on late payment of superannuation obligations ²	28	-	-	-
Interest to suppliers due to late payment ³	13	-	12	-
Speeding fines ⁴	5	-	5	-
Total fruitless and wasteful expenditure	152	138	17	-

Comments (including actions taken with regard to matter)

- Disciplinary steps have been taken against staff to address the shortcoming.
- The necessary steps have been taken to address this shortcoming.
- This matter was investigated in order to identify the cause of late payment. The employee was counselled to ensure that the late payment will not happen again.
- A procedure has been implemented, in terms of which all future fines will be deducted from the responsible employee's salary.

Criminal or disciplinary steps:

There were no material losses through criminal conduct, unauthorised expenditure or irregular expenditure. Therefore criminal or disciplinary steps are not applicable.

Gifts, donations or sponsorships received:

Employees are allowed to receive gifts and courtesies. Gifts and courtesies received above R300 are recorded in a register and approved by the relevant manager. Gifts and courtesies received above R3,000 needs written permission from the General Manager or CEO as appropriate.

Remissions or payments made as an act of grace:

There were no remissions or payments made as an act of grace.

49. World Cup Expenditure

Group

The following expenses were incurred in relation to the FIFA World Cup™ during the current financial year:

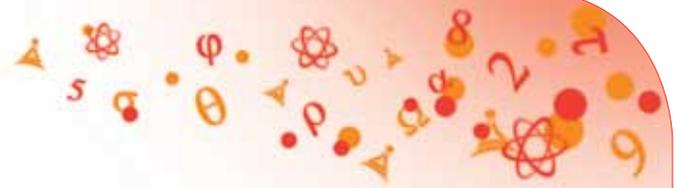
	2011 R'000	2010 R'000
Tickets acquired	-	12
Distribution of tickets		
Clients/Stakeholders of Gammatec NDT Supplies (Pty) Ltd	-	12
Total	-	12

Company

The Company did not incur any expenditure related to the FIFA World Cup™ during the current financial year.

Acronyms and Abbreviations

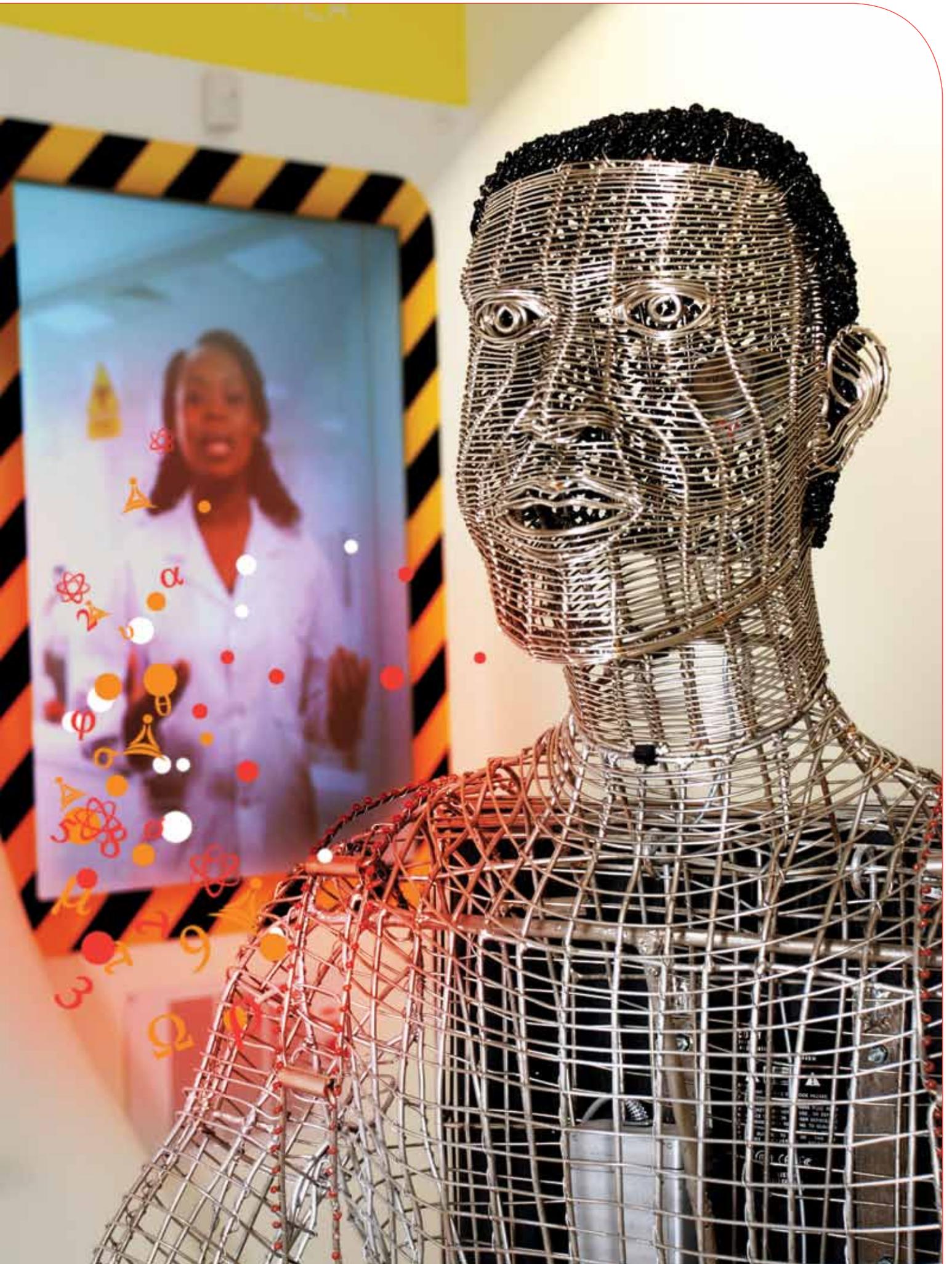
ABET	Adult Basic Education and Training	IP	Intellectual Property
AFRA	African Regional Cooperative Agreement	IPAP2	Industrial Policy Action Plan 2
AIDC	Automotive Industry Development Centre	Ir-192	Iridium-192
AHF	Anhydrous Hydrofluoric Acid	IRE	Institute for Radioelements
ALARA	As Low As Reasonably Achievable	IRMC	Internal Risk Management Committee
AMI	Advanced Metals Initiative	IRP 2010	Integrated Resource Plan 2010
ARC	Audit and Risk Committee	ISO	International Standards Organisation
ASME	American Society of Mechanical Engineers	IT	Information Technology
AVE	Advertising Value Equivalency	ITDRP	Information Technology Disaster Recovery Plan
BBBEE	Broad-based Black Economic Empowerment	JINR	Joint Institute for Nuclear Research (Russia)
BBS	Behaviour Based Safety	JV	Joint Venture
CaF₂	Calcium Fluoride	LCD	Liquid Crystal Display
cGMP	Current Good Manufacturing Practices	LEU	Low Enriched Uranium
CEA	Commissariat a l'Energie Atomique et aux Energies Alternatives	LOI	Letter of Intent
CHIETA	Chemical Industries Education and Training Authority	MEMS	Micro Electronic Mechanical System
COMENA	Atomic Energy Commission of Algeria	Mo-99	Molybdenum-99
CO₂	Carbon Dioxide	MoU	Memorandum of Understanding
COSO	Committee of Sponsoring Organisations of the Treadway Commission	MSSP	Member State Support Programme
DI	Disabling Injury	mSv	Millisievert
DIIR	Disabling Injury Incident Rate	MW	Megawatt
DIPR	Dedicated Isotope Production Reactor	NdF₃	Neodymium (III) Fluoride
DoE	Department of Energy (RSA)	NDT	Non-destructive Testing
DOE	Department of Energy (USA)	Necsa	South African Nuclear Energy Corporation
DST	Department of Science and Technology	NERDIS	Nuclear Energy Research, Development and Innovation Strategy
the dti	Department of Trade and Industry	NF₃	Nitrogen Trifluoride
EMC	Executive Management Committee	NFC	Nuclear Fuel Cycle
EMP	Event Management Process	NIASA	Nuclear Industry Association of South Africa
F₂	Fluorine	NIL	Nuclear Installation Licence
FDA	Food and Drug Administration	NIPMO	National IP Management Office
FDG	Fluorodeoxyglucose	NKP	National Key Point
FEI	Fluorochemical Expansion Initiative	NNR	National Nuclear Regulator
FP7	The European Commission's Seventh Framework Programme for funding research over the period 2007-2013	NNSA	National Nuclear Security Administration (US)
GMP	Good Manufacturing Practice	NRF	National Research Foundation
HEU	Highly Enriched Uranium	NRU	Nuclear Research Universal
HF	Hydrogen Fluoride	NRWDI	National Radioactive Waste Disposal Institute
HFR	High Flux Reactor	NSD	Nuclear Skills Development
HR	Human Resources	NSI	National System of Innovation
I-131	Iodine-131	NSW	National Science Week
IAEA	International Atomic Energy Agency	NTD	Neutron Transmutation Doped
IEB	Independent Examination Board	NTeMBI	Nuclear Technologies in Medicine and the Biosciences Initiative
IF	Innovation Fund	NTP	NTP Radioisotopes (Pty) Ltd
INES	International Nuclear Event Scale	OECD	Organisation for Economic Co-operation and Development
IOD	Injuries on Duty	PBMR	Pebble Bed Modular Reactor
		PCT	International Patent Cooperation Treaty of 1970

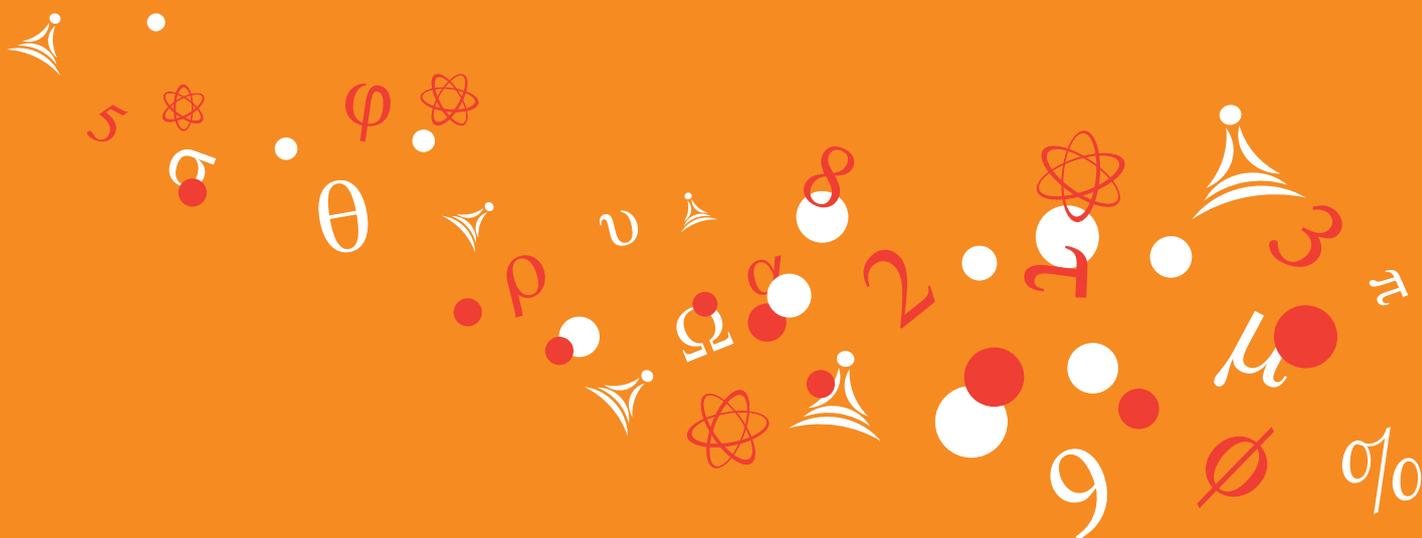


PDI	Previously Disadvantaged Individual	SAGSI	Standing Advisory Group for Safeguards Implementation
Pelchem	Pelchem (Pty) Ltd	SANAS	South African National Accreditation System
PET	Positron Emission Tomography	SANReN	South African National Research Network
PFMA	Public Finance Management Act	SARS	South African Revenue Services
PIE	Postulated Initiating Event	SASSETA	Safety and Security SETA
PRA	Probabilistic Risk Analysis	SCADA	Supervisory Control and Data Acquisition
PSIF	Public Safety Information Forum	SETA	Sector Education and Training Authority
PTB	Physikalisch-Technische Bundesanstalt	SHARS	Spent High Activity Radioactive Sources
PTFE	Polytetrafluoroethylene	SHEQ	Safety, Health, Environment and Quality
PV	Photovoltaic	SIR	Safeguards Implementation Report
PWR	Pressure Water Reactor	SMEP	Safeguards Measurement Evaluation Programme
RANET	Response and Assistance Network	TBP	Tri-n-butyl Phosphate
RCC-M	The RCC-M is a set of design and construction codes and standards for mechanical components of PWR nuclear islands and primarily applies to safety class components	TC	Technical Co-operation
R&D	Research and Development	Tc-99m	Technetium-99m
RFQ	Radio Frequency Quadrupole	TIA	Technology Innovation Agency
RIMS	Research Information Management System	TIR	Total Injury Rate
SABS	South African Bureau of Standards	UP	University of Pretoria
		WNA	World Nuclear Association
		XeF₂	Xenon Difluoride

Appendix A – Peer-reviewed Scientific Publications

- Nel, J.T., Havenga, J.L., Swanepoel J. and Bosman, H. *The plasma manufacturing of titania pigment and nano-titania in a pilot plant*. 2010. The Journal of the Southern African Institute of Mining and Metallurgy. 110, 235–239.
- Nel, J.T., Havenga, J.L., Swanepoel, J. and Bosman, H. *The manufacturing of nanoparticles with a plasma process*. 2010. The Journal of the Southern African Institute of Mining and Metallurgy. 110, 231–234.
- Ntsoane, T.P., Bucher, R., and Topic, M. *XRD Investigation of residual stresses in electron beam deposited Pt-V Coatings*. 2010. Materials Science Forum. 652, 303–308.
- McGlenn, P.J., De Beer, F.C., Aldridge, L.P., Radebe, M.J., Nshimirimana, R., Brew, D.R.M., Payne, T.E. and Olufson, K.P. *Appraisal of a cementitious material for waste disposal: Neutron imaging studies of pore structure and sorptivity*. 2010. Cement and Concrete Research. 40, 1320–1326.
- Adam, R.M. and Sofianos, S.A. *An integrodifferential equation for Bose-Einstein Condensation*. 2010. doi/10.1103/Physical Review A.82.053635
- Živanović, R. and Bokov, P.M. *Cross-Section Parameterization of the Pebble Bed Modular Reactor using the Dimension-wise Expansion Model*. 2010. Annals of Nuclear Energy. 37, 1763–1773.
- Suthiram, J., Zeevaart, J.R., Visser, H.G. and Roodt, A. *Tetraethylammoniumtricarboxylate-chlorido(quinoxaline-2-carboxylato-K²N²O) rehenate(I)*. 2010. Acta Crystallographic Section E. E66, m1042-m1043. doi: 10.1107/S160053681002893X.
- Szucs, Z., Sathekge, M., Marjanovic-Painter, B., Wagener, J., Sello, T., Wagener, C. and Zeevaart, J. R. *Synthesis of I-131 labelled 4-iodophenylacetic acid*. 2011. Journal of Labelled Compounds and Radiopharmaceuticals. 54.1, 54–58
- Augustyn, W.G., McCrindle, R.I. and Coville, N.J. *The selective hydrogenation of acetylene on palladium-carbon nanostructured catalysts*. 2010. Applied Catalysis A: General. 388, 1–6.
- Cisneros, J.C., Gomes, C.U., De Beer F., Damiani R. and Costa F.D., *Spondylarthritis in the Triassic*. 2010. PLoS ONE 5(10): e13425. doi:10.1371/journal.pone.0013425
- Lekala, L.M., Rampho, G.J., Sofianos, S.A. and Adam, R.M. *Few-Body methods for Bose-Einstein Condensates*. 2010. Few-Body Systems, 50 (1-4) 427–429
- Sofianos, S.A., Adam, R.M. and Belyaev, V.B. *A few-body method for many-body systems*. 2010. Proceedings of the 2nd South Africa – JINR Symposium Models and Methods in Few- and Many-Body Systems. Dubna. Edited by F. Šimkovic, ISBN-978-5-9530-0264-6.
- Nel, J.T., Du Plessis, W., Nhlabathi, T.N., Pretorius, C.J., Jansen, A.A. and Crouse, P.L. *Reaction Kinetics of the Microwave Enhanced Digestion of Zircon with Ammonium Acid Fluoride*. 2011. Journal of Fluorine Chemistry. 132, 258–262.
- Ntsoane, T.P., Topic, M. and Boucher, R. *Near-Surface in-Vitro Studies of Plasma Sprayed Hydroxyapatite Coatings*, 2010. Advances in X-ray Analysis, 54, Proceedings of the 2010 Denver X-ray Conference.
- Balagurov, A.M., Bokuchava, G.D., Papushkin, I.V., Sumin, V.V. and Venter, A.M. *Neutron diffraction potentialities at the IBR-2 pulsed reactor for non-destructive testing of structural materials*, 2010. JINR Rapid Communications E13-2010-84 2. 1–13.
- Taran, Yu. V., Balagurov, A.M., Schreiber, J., Evans, A. and Venter, A.M. *Residual stresses in biaxially fatigued austenitic stainless steel sample of cruciform geometry*. 2011. Particles and Nuclei Letters, T8 No. 2, C228.
- Sofianos, A., Rampho, G.J., Braun, M. and Adam, R.M. *The φ -NN and $\varphi\varphi$ -NN mesic nuclear systems*. 2010. Journal of Physics G: Nuclear and Particle Physics. 37 (2010) 085109. doi: 10.1088/0954-3899/37/8/085109





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