Australian Government

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Nuclear-based science benefiting all Australians

Annual Report 2008-2009

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Chairman's Letter

9 October 2009

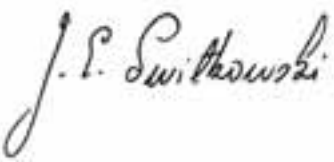
Senator the Hon Kim Carr
Minister for Innovation, Industry, Science and Research
Parliament House
CANBERRA ACT 2601

Dear Minister

In accordance with Section 9 of the *Commonwealth Authorities and Companies Act 1997 (CAC Act)*, I am pleased to present the Annual Report of the Australian Nuclear Science and Technology Organisation (ANSTO) for the period 1 July 2008 to 30 June 2009.

This Annual Report includes a Report of Research and Operations, the content and preparation of which the Board is responsible for under Section 9 of the *CAC Act.*

Yours sincerely



Dr Ziggy Switkowski
Chairman

Contents

About ANSTO

ANSTO is Australia's national nuclear research and development organisation and is the centre of Australian nuclear expertise. It is part of the Australian Government portfolio of Innovation, Industry, Science and Research.

ANSTO undertakes research in the applications of nuclear science and technology and delivers specialised advice, scientific services and products to government, universities, other research organisations, international organisations and businesses in areas as diverse as mining and radiopharmaceuticals.

About one-third of ANSTO's staff are involved in research. The balance are in business services, operations and support to government roles.

ANSTO operates Australia's nuclear research reactor OPAL which is used to produce radioactive products for use in medicine and industry, as a source of neutron beams for scientific research and to irradiate silicon for semiconductor applications.

ANSTO's research infrastructure also includes accelerators, cyclotrons and associated instruments as well as workshops, pilot plants and specialist laboratories.

ANSTO's research infrastructure is used extensively by other members of the Australian and international research communities including researchers from universities, other science and technology organisations and industry. ANSTO also manages the Access to Major Research Facilities Program (AMRFP), which provides Australian researchers with access to major international facilities.

ANSTO's main campus is located 40 km south west of Sydney's central business district, occupies 70 hectares and is surrounded by a 1.6 km buffer zone.

The organisation's functions are prescribed by the *Australian Nuclear Science and Technology Organisation Act 1987 (ANSTO Act)* and are translated into action through its strategic and annual planning process.

ANSTO's vision

To be recognised as an international centre of excellence in nuclear science and technology for the benefit of Australia.

ANSTO's mission

- Support the development and implementation of government policies and initiatives in nuclear and related areas, domestically and internationally
- Operate nuclear science and technology based facilities, for the benefit of industry and the Australian and international research community
- Undertake research that will advance the application of nuclear science and technology

- Apply nuclear science, techniques and expertise to address Australia's environmental challenges and increase the competitiveness of Australian industry
- Manufacture and advance the use of radiopharmaceuticals which will improve the health of Australians.

ANSTO's strategic directions

ANSTO's strategic directions form the basis for the organisation's research and operations:

- Deliver excellence in nuclear science and technology
- Focus our capabilities to support issues of national importance
- Maximise return on investment in expertise and specialised facilities
- Promote understanding of the benefits of nuclear science and technology.

Responsible Minister

The responsible Minister throughout the period was the Minister for Innovation, Industry, Science and Research, Senator the Hon Kim Carr.

Statement of compliance

This report is written with reference to the *Commonwealth Authorities and Companies (Report of Operations) Orders 2005.*

Senator the Hon Kim Carr, Minister for Innovation, Industry, Science and Research.

ANSTO Top Management Team

Dr Adi Paterson
Chief Executive Officer

Dr Ron Cameron
Executive General Manager, Strategy, Government and International Relations

Mr Doug Cubbin
Chief Finacial Officer, Executive General Manager, Business and Enterprise

Mr Con Lyras
General Manager, Engineering and Technical Services

Dr Robert Robinson
Head, The Bragg Institute

Dr Greg Storr
General Manager, Reactor Operations

Prof John Dodson
Head, Institute for Environmental Research

Mr Ian Turner
General Manager, ARI

Prof Lyndon Edwards
Head, Institute of Materials Engineering

Ms Stephanie Cole
Legal Counsel

Dr Ron Weiner
Head, Radiopharmaceutical Research Institute

Dr Bob Ring
General Manager, ANSTO Minerals

Mr Andrew Humpherson
General Manager, Government and Public Affairs

Mr Michael Beckett
Chief Information Officer, Information Management Systems

Mr Hefin Griffiths
Manager, Quality Safety Environment and Radiation Protection

Dr Paul Di Pietro
Manager, Campus Services

Ms Margaret Fittler
Manager, Human Resources

Ms Tanya Karma
Manager, Silicon Irradiation

Pictured from left to right, Mr Ian Turner, Mr Hefin Griffiths, Mr Michael Beckett, Prof John Dodson, Mr Andrew Humpherson, Ms Margaret Fittler, Ms Tanya Karma, Dr Adi Paterson, Dr Ron Cameron, Ms Stephanie Cole, Ms Roseanne Robinson (appointed 2009-2010), Dr Robert Robinson, Dr Greg Storr, Mr Doug Cubbin, Prof Lyndon Edwards and Dr Paul Di Pietro (not present Mr Con Lyras, Dr Ron Weiner, and Dr Bob Ring).

Members of the Board

Dr Ziggy (Zygmunt) Switkowski (Chair)
BSc (Hons), PhD, FAICD
Company Director, former Chief Executive, Scientist
Chair 1 March 2007-31 December 2010
Appointed 1 January 2006
Term concludes 31 December 2010

Professor David Copolov
MBBS, PhD, FRACP, FRANZCP, MPM, DPM
Pro Vice-Chancellor (Assisting the Vice-Chancellor) Monash University and Professor of Psychiatry, Monash University and the University of Melbourne
Deputy Chairman of the Peter MacCallum Cancer Institute
Appointed 1 May 2008
Term concludes 30 April 2012

Professor Paul Greenfield AO
BE(Hons), B.Econ, PhD, FTSE, FIEAust, FIChE, FAICD, CPEng, CEng, CSci
Vice-Chancellor University of Queensland, Academic, Engineer
Appointed 25 July 2007
Term concludes 24 July 2010

Professor John Hearn
BSc, MSc, PhD
Deputy Vice-Chancellor (International) and Professor of Physiology, University of Sydney
Appointed 1 May 2008
Term concludes 30 April 2012

Ms Christine McLoughlin
BA, LLB(Hons)
Company Director, Former Financial Services executive, lawyer and businesswoman
Appointed 13 March 2009
Term concludes 12 March 2013

Ms Erica Smyth
MSc, FAICD
Scientist and business woman
Appointed 12 December 2008
Term concludes 11 December 2012

Mr Bill (William) Scales AO
BEc, FIPPA, FAICD
Company Director, former Senior Public Servant and Chief Executive, Economist
Appointed 1 July 2007
Term concludes 30 June 2010

Professor Andrew Scott
MBBS (Hons), MD, FRACP, DDU
Director, Ludwig Institute for Cancer Research
Nuclear Medicine Physician, Scientist, Academic
Appointed 26 September 2007
Term concludes 25 September 2011

Mr Edward Pretty
Senior Consultant to Macquarie Bank and Chairman of Fujitsu Australia Limited and RP Data Limited
Appointed 26 September 2007
Resigned 16 November 2008

Dr Adi (Adrian) Paterson
BSc, PhD
Chief Executive Officer
Appointed 1 March 2009
Term concludes 28 February 2014

Dr Ron Cameron
BSc, MSc, MBA, DPhil, ARCS, MAICD
Chief Executive Officer (Acting)
Appointed 17 May 2008
Term concluded 28 February 2009

Pictured from left to right, Professor John Hearn, Professor David Copolov, Ms Christine McLoughlin, Dr Ziggy (Zygmunt) Switkowski, Professor Paul Greenfield, Dr Adi (Adrian) Paterson, Ms Erica Smyth, Mr Bill (William) Scales and Professor Andrew Scott.

Chairman's Report

Welcome to ANSTO's Annual Report for 2008-2009. It has been yet another unpredictable and eventful year for ANSTO but one where important milestones have been met which offer the promise of future success.

After the disruption to reactor operations I reported last year, the OPAL reactor has now been running successfully and predictably for a number of cycles. This has enabled us to restart production of radiopharmaceuticals at a time when there is a significant shortage of suppliers of reactor produced medicines in the world market. Given the quality of our reactor facility, OPAL now has an opportunity and obligation to help address the global supply shortages.

Although it has always been clear that Australia requires its own secure and reliable source of medical isotopes, and ANSTO's radiopharmaceutical production arm has exported medical isotopes for many years, the current situation may see significant increases in ANSTO's exports of some nuclear medicines around the world, including to the USA.

In terms of research, the successful operation of OPAL has opened a new era of discovery. OPAL produces neutrons that are now being used by researchers from Australia and from around the world. OPAL, together with the neutron instrumentation housed in ANSTO's Bragg Institute, is producing very fast and extremely high quality data for these researchers, and scientific advances are already being made in areas including health and materials science. Time on the instruments continues to be oversubscribed by eager researchers, and collaborations between ANSTO scientists and groups from various world-class universities and research institutes continue to grow strongly and offer the promise of fruitful discoveries.

As the neutron-based research program builds, and with the re-establishment of Australia's radiopharmaceutical production capabilities, OPAL is now living up to the high expectations we held for it and is fulfilling its mandate as a vital piece of Australian technology infrastructure.

Recognition of the roles of OPAL, and ANSTO generally, is increasing throughout the community. Over seven thousand, six hundred people toured the ANSTO site during the year, and feedback from visitor tours is overwhelmingly positive. ANSTO has made a sustained and successful effort to engage and involve the local and wider Australian community in its work, and nuclear technology generally, as well as

its contributions to education programs at all levels.

Of course, OPAL requires a significant level of nuclear expertise to be maintained in Australia and facilitates our role in contributing to nuclear policy internationally, such as through our roles in the International Atomic Energy Agency (IAEA), and regionally through vehicles such as the Regional Cooperative Agreement (RCA).

On a wider scale, nuclear technology is gaining broad interest and acceptance for its potential role in mitigating climate change. Many countries in the world are moving forward with plans for significant numbers of new nuclear power reactors, recognising that nuclear power is the only, currently available, technology truly capable of providing base-load power without significant contributions to climate change emissions. With regional neighbours such as China, Taiwan, Japan, South Korea, India and Pakistan already deploying nuclear energy and other countries such as Indonesia and Vietnam about to embrace nuclear power, it becomes clear why ANSTO's active and leading role in nuclear matters in the region is so important to maintain.

Nearly one thousand ANSTO staff work to achieve our mission to perform world class research, manufacture radiopharmaceuticals and partner with industry and academia in progressive applications of nuclear techniques.

The ANSTO Board was pleased to welcome in March this year, Dr Adrian (Adi) Paterson, as Chief Executive Officer of ANSTO. Adi has begun the task to reinvigorate ANSTO and lead it through the next exciting phase of its history as a world class nuclear institution.

During this past year, two new Board members were added – Ms Erica Smyth and Ms Christine McLoughlin and with its skill set deepened, the Board looks forward to working with the CEO and his leadership team to help the organisation achieve its ambitious goals.

Dr Ziggy Switkowski
Chairman

Chief Executive Officer's Report

As the new CEO, I started my term at ANSTO after a time of significant restructure and refocusing for the organisation. Changing priorities on both a national and global scale require appropriate organisational responses, particularly in an organisation so relevant to the major issues, such as energy, water and climate change, facing the world today.

A broad, but of course not universal, public acceptance of the pragmatic, peaceful and safe use of nuclear science is developing in our communities. While ANSTO is not in the business of power generation, the skills and capacities vested in our organisation are essential to all options for future power, including clean coal and sequestration technologies. ANSTO is clearly in view every time energy options for Australia are debated.

With regards to our achievements over the past year, it is universally acknowledged that an organisation's annual report can make for dry reading. In the case of ANSTO, the bare statistics and financial data provided belie the very real excitement of scientific and operational achievements behind each data point. In fact, the work and achievements of ANSTO's research and operations staff go far beyond simply meeting the performance indicators set for them and reported against in the relevant section of this report.

For example, behind each of the 500 odd publications noted in those statistics, stands a team of ANSTO scientists and their collaborators that have discovered new information about the way the world works in scientific disciplines ranging from biology and health, through to physics and materials science.

The story behind the one line objective of 'Removal of spent fuel from the ANSTO site in line with stringent safety arrangements and community expectations' is that of a team effort, involving the high level and unique expertise of ANSTO's operational staff, appropriate communications strategies and the involvement of transport companies, local, state and federal police, security agencies and international liaison.

Similarly, new science, unique ANSTO expertise and enthusiasm in responding to our mission, lies behind each formal objective ANSTO has met this year. While it is impossible to tell every story behind the data points, we have selected a representative cross section of our work and people to report in more depth.

In looking to the future, we will focus and collaborate to ensure the best use can be

made of ANSTO's unique facilities and expertise in responding to the issues facing Australia and the world. The key platforms such as OPAL and the accelerators are providing scientists with more profound insights into issues including food, water and health. Additionally, with the challenges of climate change and associated energy concerns, an Australian source of accurate and unbiased policy advice is vital.

This year has been one of challenges and consolidation for ANSTO, but I believe the over-riding atmosphere as we enter the new financial year, is one of excitement and optimism.

I would like to thank Ron Cameron for his leadership as Acting CEO and the ANSTO community for welcoming me to Australia in this new role. The ANSTO Board has proved to be a strong custodian of ANSTO's vision and mission. I am very thankful for the key role they play.

Dr Adrian (Adi) Paterson
Chief Executive Officer

2008-2009 highlights

In 2008-2009, OPAL successfully provided neutrons for research and commercial irradiations, including for silicon irradiation and radioisotopes production.

OPAL

ANSTO's key asset, the OPAL nuclear research reactor, lived up to its promise in the 2008-2009 financial year. In December 2008, the fully operational reactor commenced the first stage of production of the most used radioisotope, technetium-99m, when irradiation of uranium plates began.

The reactor's heavy water, located in the 'reflector vessel', was replaced in November 2008 because over the previous two years, normal water from the surrounding reactor pool had slowly seeped in and diluted it. Heavy water reflects neutrons back into the reactor core to sustain the nuclear reaction. Although this is not a safety issue and does not prevent operation of the reactor, dilution reduces neutron intensity, which can affect the ability to irradiate targets for radiopharmaceutical production and silicon irradiation.

Despite the heavy water dilution, OPAL still successfully provided neutrons for research and commercial irradiations, including several radioisotopes.

Silicon irradiation restarted and is growing its export market.

Neutron beam instruments

With OPAL operating as scheduled and the issuing of ARPANSA operating licences, ANSTO's six neutron beam instruments (Echidna, Wombat, Koala, Kowari, Platypus and Quokka) produced their first research results. These instruments are available for use by domestic and international users such as universities and other research organisations.

The performance of the instruments exceeded design specifications and users noted that this performance surpassed many of their international equivalents.

Proposals for neutron beam time between January and June 2009 saw demand running at up to 300 per cent of the number of available days on some instruments.

In December the construction process for another instrument, the ultra small-angle neutron scattering instrument, to be known as Kookaburra, began. Kookaburra will help scientists study a range of materials and organic structures, from polymers and industrial coatings to viruses.

In addition, in May 2009 the Australian Government announced $37 million of new capital funding for additional OPAL neutron beam instruments in its annual Budget Statement to Parliament.

PETNET

ANSTO, through its wholly-owned subsidiary PETNET Solutions, has constructed a fluorodeoxyglucose (FDG) production facility with two cyclotrons located in the Lucas Heights Technology Park.

FDG is used in Positron Emission Tomography (PET) scanning which has produced significant advances in diagnosis of cancer and other medical conditions.

The Kowari neutron beam instrument is a residual-stress diffractometer that looks at stresses in materials such as jet engines and gas pipes, and investigates failures of wheels and rails.

2008-2009 highlights

The two PETNET mini-cyclotrons will produce a short-lived glucose radiopharmaceutical used in positron emission tomography (PET) scanning.

Two cyclotrons will provide capacity to service the rapidly growing FDG market and ensure quality and reliability of supply to hospitals, nuclear medicine centres, and ultimately patients.

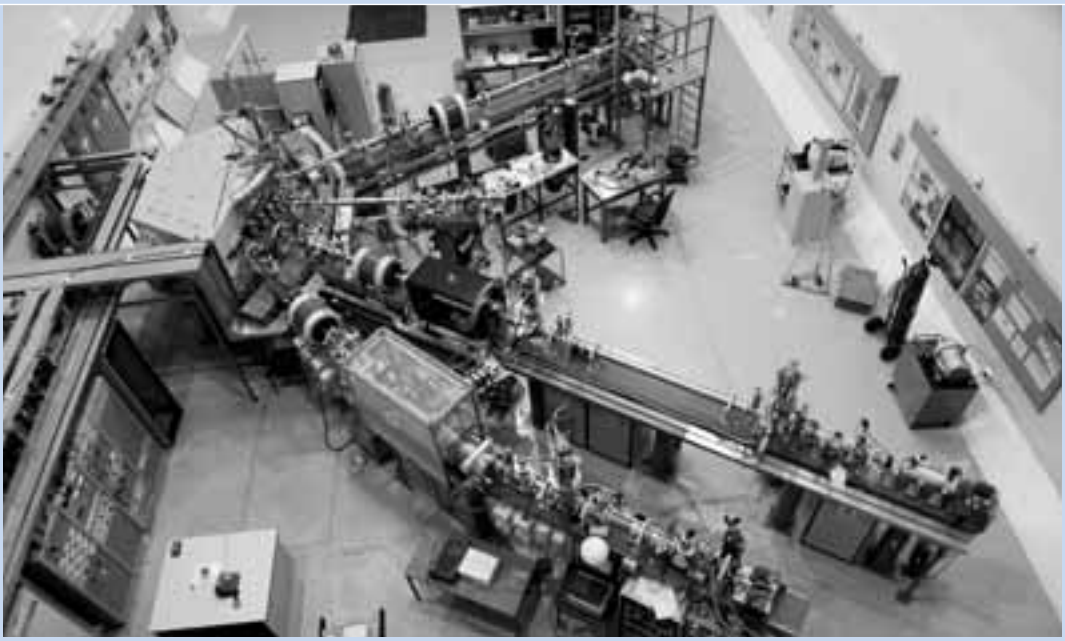
Used fuel shipment

The ninth and final shipment of HIFAR (ANSTO's shutdown reactor) used fuel left Sydney on 16 March 2009 and was received at its final destination in the United States on 21 May 2009. The shipment was completed on time and within budget, with significant information provided to the community at each stage.

Molybdenum production

In June 2009, ANSTO was working to bring fully on-line a radiopharmaceutical manufacturing plant associated with the OPAL reactor, which produces Molybdenum-99 (Mo-99).

ANSTO supplies radiopharmaceuticals to over 225 nuclear medicine centres across Australia and exports to New Zealand and South East Asia.



ANTARES is used for ion beam analysis and accelerator mass spectrometry.

Mo-99 which decays into technetium-99m (Tc-99m) is the most widely used radiopharmaceutical and used in the diagnosis of cancers, heart disease and skeletal injuries.

The plant was operable and in the final stages of commissioning by the end of the financial year. ANSTO, working closely with its regulator the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), received the required licence in September 2009.

Centre for Accelerator Science

Along with additional neutron beam instrument funding, the Federal Government also allocated $25 million in the 2009 Federal Budget to help ANSTO establish a Centre for Accelerator Science.

The Centre for Accelerator Science will enable an upgrade of current ANSTO accelerators and support ANSTO's aim of working in partnership with other research organisations in a national network of accelerators to maximise the benefits this important infrastructure can offer.

Accelerators are key tools for use in nuclear safeguards and forensics, medical physics, materials science and radiation physics ensuring Australia has top facilities for its scientists.

ANSTO Minerals

Due to a large increase in the number of projects, the organisation's mining industry consultancy group, ANSTO Minerals, increased its revenue by 51 per cent in 2008-2009 to $10.192 million.

Australian Government

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Nuclear-based science benefiting all Australians

2008-2009 report of activities

(Report of research and operations)

Australia's nuclear experts

ANSTO's international activities representing Australia

As Australia's national nuclear research organisation, ANSTO provides the principal technical interface with the IAEA. ANSTO participates in a wide range of IAEA activities and provides experts, technical consultants, training course lectures and coordinates placement and management of fellowship holders and scientific visitors undergoing specialist training in Australia.

ANSTO has nuclear representatives based in both Vienna and Washington DC. The Vienna post acts as a liaison with the IAEA and participates in global nuclear policy discussions representing Australia's interests. The Washington office provides feedback and engagement with the United States and Canada on technical and global developments in nuclear issues including advanced technology, waste and transport issues. Both representatives report on developments and provide technical advice to the respective Ambassadors and other Australian Government agencies in Europe and North America.

ANSTO actively supports Australia's obligations and duties under the Nuclear Non-Proliferation Treaty by facilitating the further development of peaceful nuclear cooperation in the Asia Pacific region through the RCA for Asia and the Pacific and the Forum for Nuclear Cooperation in Asia (FNCA).

Some examples of ANSTO's work related to the IAEA this year include:

- ANSTO participated in the 31st Meeting of National RCA Representatives (NRM) in Japan in April 2009. The meeting was attended by 43 participants from 13 member states. The meeting agreed to an Australian proposal to develop a Regional Profile for the RCA Technical Programme to facilitate the task of the national representatives in establishing priorities for the 2012-13 programme. The meeting also agreed to an extension of the Medium Term Strategy for the RCA Technical Programme to help identify priorities and new strategies in time for the 32nd NRM, when initial consideration of the 2012-2013 programme and its priorities would take place. ANSTO chaired the subsequent development of a new medium term strategy for 2011-2016.
- In 2009 ANSTO hosted an international meeting on DIDO-type reactors (of which HIFAR is one of six worldwide), meetings which were held regularly whilst the DIDO reactors were operational. Now that all DIDO reactors have been permanently shutdown, the meetings serve as fora to discuss plans to care, maintain and/or decommission the reactors. Representatives from Denmark and Germany attended the meeting in April.
- In May 2009, ANSTO, ARPANSA and the Department of Resources, Energy and Tourism (DRET) represented Australia at the third review meeting of Contracting Parties to the Joint Convention on Spent Nuclear Fuel Management and Radioactive Waste

The fountain of the Memorial Plaza in the forecourt of the Vienna International Centre, headquarters of the International Atomic Energy Agency (IAEA). Flags of all 150 member states of the IAEA, including Australia, prominently surround the fountain.

Management in Vienna. The review process consisted of the submission of national reports on compliance with the articles of the Joint Convention in accordance with the reporting requirement provisions of the Joint Convention. Australia submitted its third national report to the meeting which was attended by 44 contracting parties.

- Australia also hosted a back-to-back IAEA Consultancy Meeting and Technical Workshop in May 2009 to address the means to efficiently and effectively develop and implement an integrated system relevant to research reactors. Effective management systems help to streamline an organisation, optimise the use of resources and help ensure consistent, high standards throughout an organisation.
- In June, ANSTO chaired a meeting on the Safety and Security of Radioactive Sources. The participants discussed the challenges facing the management of disused radioactive sources and the threat they pose to safety and security (by way of use in 'dirty bombs') should they not be managed properly. The findings of the meeting have significant implications for Australian radioactive waste management policy.

The ANSTO Regional Security of Radioactive Sources Project continues to work with counterpart agencies in South East Asian countries to improve the control, safety and security of radioactive sources. For example, in April ANSTO staff assisted in raising awareness of radioactive source security issues in several pacific island countries by presentations to the Global Initiative to Combat Nuclear Terrorism's (GICNT) Workshop on Radiological Source Security and Safety in the Pacific in Vanuatu.

In May 2009 ANSTO contributed to a US sponsored workshop in Nepal on the practical issues regarding source security

and the international standards governing the safety and security of radioactive sources. The New Zealand Ministry of Foreign Affairs provided NZ$100,000 to the ANSTO project work as part of their GICNT contribution.

In January, the Organisation for Economic Co-operation and Development (OECD) Nuclear Energy Agency convened a workshop on the Security of Supply of Medical Radioisotopes in Paris in January. ANSTO participated in the workshop, which was initiated at the request of the government of Canada to address challenges to the reliable supply of technetium. The vulnerability of the global medical isotope supply chain, which depends on a number of aging nuclear research reactors for isotope production, has become evident in recent years.

In June, ANSTO participated as Vice Chair in a High Level Group meeting on the Security of Supply of Medical Radioisotopes in Toronto, Canada. The High Level Group meeting, established under the OECD Nuclear Energy Agency, discussed the current global shortage of Mo-99, made progress in coordinating reactor schedules, sought assistance from the IAEA in streamlining regulatory approvals for transport of Mo-99 and discussed ways to increase capacity in the medium and long term, including Australia's potential role.

ANSTO will make every effort to assist in the developing global nuclear medicine supply crisis once our Mo-99 process is established.

Counter terrorism

ANSTO has developed a significant research effort into counter terrorism and national security areas. In November, Australia's new Ambassador for Counter Terrorism Mr Bill Paterson visited ANSTO to familiarise himself with the research conducted by ANSTO as well as the relevant facilities and capabilities housed at ANSTO. The US State Department's Non-proliferation Bureau also visited ANSTO that month to see the relevant ANSTO expertise and capabilities in the areas of counter terrorism and non-proliferation and to discuss how ANSTO could further contribute to international non-proliferation efforts.

In October 2008 ANSTO's National Security Research group presented research findings at the 2008 Australian and New Zealand Forensic Science Society (ANZFSS) conference in Melbourne winning two awards.

ANSTO is also called upon when expertise on nuclear materials is required. ANSTO was commissioned by the Victorian Police to conduct a detailed analysis of material, suspected to be uranium, seized in a police raid at the beginning of April 2009.

ANSTO's knowledge was also called upon by the NSW Government in determining the nature and extent of radioactive material in areas of Hunters Hill in Sydney where a former uranium smelter existed.

Advice to government

ANSTO regularly provides advice to government on a wide range of issues through written advice, submissions and responses to specific enquiries; through hosting site visits for parliamentarians, and formal and informal hearings, meetings and workshops.

For example, in 2008-2009 ANSTO made submissions to the following parliamentary inquiries:

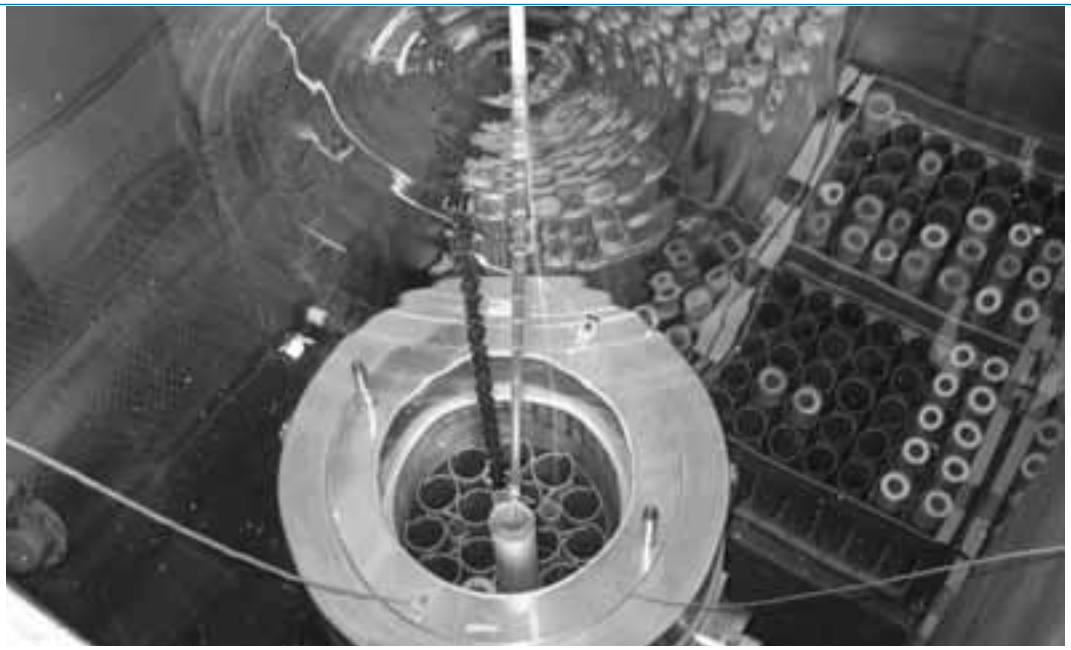
- The Senate Standing Committee on Foreign Affairs, Defence and Trade's Inquiry into the economic and security challenges facing Papua New Guinea and the island states of the southwest Pacific
- The Joint Standing Committee on Foreign Affairs, Defence and Trade's Inquiry into Australia's Relationship with ASEAN
- The Senate Standing Committee on Environment, Communications and the Arts' Inquiry into the Commonwealth Radioactive Waste Management (Repeal and Consequential Amendment) Bill 2008
- The Joint Standing Committee on Treaties' Inquiry into Nuclear Non-proliferation and Disarmament
- ANSTO provided information on the possible role of nuclear power as part of a diverse energy mix to the Department of Resources, Energy and Tourism, which is currently developing a White Paper on energy. The paper can be found on ANSTO's website, www.ansto.gov.au.

ANSTO also provided responses to a number of parliamentary questions on notice concerning the OPAL reactor and radiopharmaceutical production, and provided advice to Ministers on the used fuel shipment, the nuclear fuel cycle, the decommissioning of the Moata reactor and other matters.

ANSTO's support to nuclear powered warship visits to Australian ports

ANSTO's role as the national expert in radiation safety and security is also used when nuclear powered warships visit Australia. Visits to Australian ports is one of the most visible aspects of the defence cooperation between Australia and other countries. Some of these vessels are nuclear powered and as such are subject to stringent conditions regarding safety and environmental monitoring at Commonwealth, State and Territory level. A number of organisations work together with the Royal Australian Navy (RAN) to ensure these conditions are met.

ANSTO trains RAN and State monitoring teams to carry out radiation measurements in areas where the public could be exposed to radiation in the highly unlikely event of an incident with a nuclear powered vessel's reactor.



Used fuel is loaded into metal baskets underwater which act as a radiation barrier. The baskets are subsequently drained, vacuum dried and hermetically sealed.

Used fuel shipment

As well as logistics planning, the preparations for the March 2009 shipment of the HIFAR used nuclear fuel involved ensuring the community was well informed on all non-confidential aspects of the shipment. Letters were sent to local government and MPs, a press release was issued, and information about the upcoming shipment was publicly released in November 2008. A brochure was produced, and a video of how used fuel is packed published on the ANSTO website. Community briefings took place at Lucas Heights in December and Wollongong in March. The Wollongong event was hosted by the South Coast Labour Council.

This was the ninth overseas shipment of ANSTO used fuel. The shipment was transported from Lucas Heights to Port Kembla for shipping to the United States. All of the shipments have been conducted in compliance with applicable international and national standards to ensure maximum safety to the public and the environment. This required a high level of support from the police, harbour and maritime authorities and the associated regulatory bodies.

The shipment arrived at the United States Department of Energy's Savannah River site in May 2009. Now that the shipment is complete, all of the spent fuel elements from 49 years of HIFAR operation and 34 years of Moata operation have been removed from the Lucas Heights campus.

Health research

Breakthrough in Parkinson's disease research

ANSTO researchers have undertaken vital research which will bring scientists one step closer to finding a treatment for Parkinson's disease. When the protein alpha-synuclein behaves abnormally, it plays a role in the development of Parkinson's disease. Using ANSTO's facilities in protein purification, spectroscopy and microscopy, and using neutron scattering facilities at the National Institute of Standards and Technology (NIST) it was discovered that the abnormal behaviour can be stopped or even reversed by using a man-made polymer.

Epilepsy research

ANSTO researchers have been involved in the development of a nuclear medicine imaging agent, F-18 labelled Flumazenil which could help with diagnosis and treatment planning for epilepsy. This agent, used in PET scanners, can accurately pinpoint the area of seizure in the brain and provides superior imaging when compared to magnetic resonance imaging (MRI) scans. By knowing exactly where the seizure occurs, this allows doctors to more accurately prescribe treatments. This collaborative work was presented at the ANZ Nuclear Medicine conference in Sydney in April 2009.

Using radioisotopes to monitor cancer treatment

ANSTO scientists have developed a technology that can monitor the use of cancer medicines to see whether they are effectively treating patients. The technology binds the PET radioisotope, Copper-64 (a radioisotope with a half-life suitable for shipping across a continent) to the target agent or medication, thereby enabling doctors to see an image of where the treatment is in the body using PET cameras. This will allow doctors to assess whether the medication is reaching the tumour site in cancer and even determine if the dosage used is correct. Treatments could be personalised and clinical trials of drugs would benefit from this technology.

Research into improving imaging

ANSTO and the Brindle Laboratory at Cambridge University in the United Kingdom have entered into a three year collaboration aimed at developing sophisticated imaging methods for PET-based radiopharmaceuticals for the early detection of tumour responses to therapy. This research will develop non-invasive methods of monitoring cancer treatments, which will improve their effectiveness and contribute to the goal of personalising medicine.

Mining 12,000-year-old ice on the ice margin in Greenland. The team melted 15 tonnes of ice, collecting the ancient air trapped within and separating the methane for analysis. Photo courtesy Dr Vas Petrenko.

Environment and climate change

Dating groundwater in Western Australia

ANSTO was awarded two contracts by the Western Australian Government to date the groundwater systems in the Pilbara Region located in northern Western Australia and the Gnangara groundwater mound in the northern suburbs of Perth. Dating groundwater enables authorities to determine whether current or projected rates of extraction are sustainable.

ANSTO contributions to methane release climate research

ANSTO is involved in international, multidisciplinary climate change research aimed at profiling past periods of atmospheric methane increase. An outcome of this work is an assessment of the future impact on global warming posed by sources of the potent greenhouse gas, methane. Recent work resulted in a publication in the journal Science in April 2009. The source of methane can be sensitively determined from the use of nuclear analysis techniques in which ANSTO is a world leader in small sample preparation and analysis.

There has been much debate over whether the vast amounts of methane, several thousand times that already in the atmosphere, locked up in ice-like material on the ocean floor and in the permafrost regions of the Earth, could rapidly return to the atmosphere as a result of increased temperature or reduced pressure. By identifying the source of methane trapped in air bubbles in the Greenland ice sheet from 12,000 years ago during the last 'big freeze' and the subsequent rapid warming, the researchers have been able to determine that the source of increased methane following the 'big freeze' was not from the locked up methane, but from wetlands. This is a significant finding, because it identifies that the methane increase was a consequence of the earlier warming event rather than a trigger. Given this past precedent, the inclusion and modeling of methane release from this source during any future warming period can be better calibrated. Such a release, on balance, must be of much lower probability than previously reported.

Climate change research dating of stalagmites in Italy

Researchers from ANSTO, the Australian National University and Europe have dated the age of stalagmites that grew in submerged coastal caves in Italy to better understand the rate of sea level change through time. The research demonstrated that the lag time between changes in temperature and sea level response may not be as long as previously thought, meaning that ice sheets are capable of melting quickly in response to increasing temperature and CO_2 levels.

Glacier research could impact climate change forecasts

ANSTO research data from Mongolian glaciers could impact climate change forecasts. Major climate events during past global ice ages did not happen simultaneously or with the same intensity world-wide, new ANSTO research data has revealed. The research, which used sophisticated nuclear dating techniques on rocks from Mongolian glaciers, could impact future climate change forecasts. The research for the first time shows that Mongolian glacier advances during the last ice age were not synchronised with alpine glaciers in Europe and North America, suggesting that climate varied significantly between continents.

Materials engineering

Strengthening Defence

ANSTO is a core participant in the Defence Materials Technology Centre (DMTC). Researchers in ANSTO's Institute of Materials Engineering led by Prof Lyndon Edwards are helping the DMTC develop and deliver new materials technologies and manufacturing processes to enhance Australia's defence capability through collaborative research involving Defence, defence industries, Universities and other research agencies.

ANSTO's key capabilities utilised in DMTC work are the design characterisation and manufacture of ultra high temperature materials and the development of validated predictive finite element simulations of both product manufacturing and performance. The former is currently being used to produce innovative solutions for the production of high performances materials and systems for use in both supersonic rocket and hypersonic scramjet propulsion systems whilst our modelling capability is being to simulate the ballistic and blast modelling of armour materials, and optimise novel welding processes for the production of both land and marine defence platforms.

Toxicology of nanomaterials

ANSTO received a scientific research grant worth $1.8 million from the National Health and Medical Research Council (NHMRC) for the University of Queensland and ANSTO's Dr Suzanne Smith to investigate the toxicology of nanomaterials, a subject currently under public scrutiny. This research will help scientists understand the effects of nanoparticles once released into the surrounding environment.

synrocANSTO United Kingdom and United States work

ANSTO has been demonstrating its HIP waste form technology to a number of legacy radioactive wastes both in the US and the UK. The technology is gaining interest for its ability to offer significant volume reductions and producing a highly durable waste form for long term disposal. In addition, as countries consider full life cycle costs of the waste treatment and disposal the synrocANSTO process is showing significant potential savings.

ANSTO demonstrated its waste form process technology applicability in the UK to a number of wastes identified by Sellafield Ltd, including SIXEP Magnox sludge and SandClino wastes. ANSTO was able to successfully show; the feasibility of the process, the production of a stable monolithic glass ceramic, the retention of radionuclides and the considerable volume reduction of greater than 65 per cent.

Work has also continued with National Nuclear Laboratories related to providing information and data to allow a research glovebox line facility to be built in the UK to treat plutonium residue wastes. The work includes research into the flexibility of the glass ceramic waste form to take variations in the waste and the development of the process equipment.

ANSTO has been demonstrating its HIP process technology for the treatment of 4400 cubic metres of calcined wastes at Idaho in the US. The work funded by the US Department of Energy (USDOE) has estimated that ANSTO's process has the potential to save between $2-4 billion dollars in disposal costs alone and that it reduces the regulatory risk by being able to meet various waste acceptance criteria independent of the final disposal site.

ANSTO has been working with the Idaho National Laboratory to carry out trials on simulants and on radioactive surrogates at various scales. This work has sparked interest in the USDOE and is funding further work to determine the applicability to other challenging wastes across the nuclear research sites.

Operation of OPAL and other facilities

OPAL

Over the past year, the OPAL research reactor has operated as scheduled, and is working well. Results from performance tests are being finalised, availability and utilisation have markedly increased and OPAL's neutron beam instruments have been able to produce their first research results. The performance of the instruments is meeting and exceeding the design specifications. OPAL's operation has also allowed Australia's domestic radiopharmaceuticals supply to be re-established, as has ANSTO's multi-million dollar silicon irradiation business.

OPAL's successes over the past year have reinforced Australia's leadership, both in the region and the world, in nuclear operations generally. The experience gained in building and commissioning such a significant piece of both nuclear and scientific infrastructure is invaluable for Australia.

Neutron-beam instruments

OPAL's neutron research facilities contain neutron-beam instruments which require OPAL's neutrons for solving complex research and industrial problems in many important fields.

Neutron scattering allows scientists to see what x-rays cannot. They look at materials from the inside out, understanding their atomic structure and how materials respond to various stimuli.

ANSTO's neutron-beam instruments are:

- Echidna – a high-resolution powder diffractometer
- Koala – a laue diffractometer
- Kowari – a residual-stress diffractometer
- Platypus – a reflectometer
- Quokka – a small-angle neutron scattering instrument
- Taipan - a thermal triple-axis spectrometer
- Wombat – powder diffractometer

National Deuteration Facility

ANSTO's National Deuteration Facility offers the capability to produce molecules where all or part of the molecular hydrogen is in the form of the stable (non-radioactive) isotope of hydrogen called deuterium.

This important technique enables scientists to more effectively investigate the relationship between the structure and function of proteins, DNA, synthetic polymers and other materials known as 'soft matter'.

Radiopharmaceutical production facilities

ANSTO supplies radiopharmceuticals to over 220 nuclear medicine centres across Australia and exports to New Zealand and South East Asia.

ANSTO simultaneously produces large quantities of different isotopes, such as Mo-99 and iodine-131, used for the diagnosis and treatment of serious illnesses such as cancer.

ANSTO's low enriched uranium Mo-99 manufacturing facility is being used to meet the huge demand for this important radiopharmaceutical, which is the basis of 80 per cent of nuclear medicine procedures performed around the world.

The other two main radiopharmaceuticals produced are iodine-131, used to treat hyperthyroidism and in the diagnosis and treatment of thyroid cancer, and thallium-201, used to detect the location of damaged heart muscle.

Therapeutic Goods Administration licensed facilities at Lucas Heights and at the National Medical Cyclotron in Camperdown, New South Wales, produce more than 80 per cent of the annual diagnostic nuclear medicine for procedures in Australia.

ANTARES Accelerator

ANTARES (The Australian National Tandem Accelerator for Applied Research) is used by ANSTO scientists in dating and identification of elements.

ANTARES can be used in beam analysis where the objective is to determine what type of elements the sample is made from and how atoms are distributed throughout the sample.

ANTARES is also used for accelerator mass spectrometry, which is a technique used to detect minute quantities of radioisotopes in samples.

STAR Accelerator

STAR (Small Tandem for Applied Research) is a tandem particle accelerator used for the analysis of a diverse range of materials.

A compact accelerator, STAR has been designed specifically for dual functionality providing both ion beam analysis and accelerator mass spectrometry.

Irradiation facility

ANSTO has an irradiation facility which is used to irradiate items for medical health, industry, agriculture and research.

The facility, known as GATRI (Gamma Technology Research Irradiator), provides a comprehensive range of irradiation services including:

- Sterilisation of frozen human bone and tendons for transplants and grafting in surgery

ANSTO runs a highly successful education and tours program offering free science teaching resources and science information for students.

- Irradiation of the Queensland fruit fly to help control infestations
- Irradiation of quarantine goods
- Plant mutation studies
- Sterilisation of medical products
- Accelerating long term storage effects on products such as plastics and electronics.

The precision irradiation services, dose measurement and controlled temperature capabilities provided by GATRI are unique in Australia.

Cyclotrons

In addition to the new PETNET Solutions facilities, ANSTO operates the National Medical Cyclotron, an accelerator used to produce certain short-lived radioisotopes for nuclear medicine procedures.

Community and education

Over the last year ANSTO has welcomed over seven and a half thousand people through its gates to take a tour of its facilities and meet its people.

Visitors range from primary and high school students, university students, community organisations, businesses and politicians.

ANSTO also sponsored a range of activities including Science Exposed, Science in the City, the local Sutherland Shire Australia Day celebrations and the conferences of the Australian Science Teachers Association, the NSW Science Teachers Association and the Victorian Science Teachers Association.

Three professional development days were also held to increase the knowledge of teachers in the following areas - physics, chemistry, biology and earth and environmental science.

As part of its commitment to keeping the local community informed of its activities, ANSTO held two public Community Discussions in 2008-2009. Each forum focused on a different topic of interest.

Businesses

External earnings by ANSTO business and enterprise groups amounted to $43.509 million in 2008-2009. This was up $3.019 million from the previous year.

ARI

ARI is the commercial division of ANSTO that produces radiopharmaceuticals. It is the primary supplier of radiopharmaceuticals in Australia, operating from ANSTO's Lucas Heights campus and the National Medical Cyclotron at the Royal Prince Alfred Hospital. Each year, around 500 000 Australians benefit from nuclear medical procedures that use radioisotopes from ARI. ARI supplies over 200 public and private nuclear medicine centres in Australia, as well as exporting radiopharmaceuticals to Asia, New Zealand and other markets.

ARI's revenue earning was $ 21.367 million in 2008-2009. This was up $0.694 million from the previous year.

Molybdenum-99

In June 2009, ANSTO was working to bring fully on-line a radiopharmaceutical manufacturing plant associated with the OPAL reactor, which produces Mo-99.

The plant was operable and in the final stages of licensing in June 2009, with a full licence obtained in September 2009.

In late June, ANSTO supplied small batches of Mo-99 to overseas groups to allow verification of the product quality as part of ARPANSA approved 'proving runs'.

ANSTO's new molybdenum production facility was in the final stages of licensing in June and received a full licence in September 2009.

The worldwide shortage has again confirmed the crucial importance of an indigenous supply.

Until production is established, ANSTO will maintain regular Mo-99 importation to meet Australian patient needs.

External radiation services

ANSTO provides radiation services and advice to a wide range of Government and private stakeholders. Radiation safety services include radiation safety training, radiation protection advice, measurement and management plan development and reviews, radiation instrument calibration, and systems safety and reliability consultancy. For example, our expertise

was obtained by the NSW Government to characterise urban residential land contaminated with higher than normal levels of naturally occurring radioactive material. ANSTO also provides services and advice in the areas of high-dose irradiation and high-dose dosimetry for scientific research and the provision of irradiation services to health care, agriculture and industry.

ANSTO Minerals

ANSTO Minerals is a mining industry consultancy group that has specialised knowledge of uranium ore processing. Consulting and research work is carried out in uranium ore processing and extraction; control of naturally occurring radioactive materials in the minerals industry; and process development in hydrometallurgical processes.

ANSTO Minerals revenue earning in 2008-2009 increased by 51 per cent to $10.192 Million.

PETNET

A wholly-owned ANSTO subsidiary, PETNET Pty Ltd (trading as PETNET Solutions), has constructed an FDG production facility with two cyclotrons at the Lucas Heights campus. ANSTO plans to use the cyclotrons to resume manufacturing FDG in Sydney on a commercial basis. FDG is used in PET scanning, which has produced significant advances in diagnosis of cancer and other medical conditions.

CeramiSphere Pty Ltd

CeramiSphere Pty Ltd is an ANSTO subsidiary commercialising a patented technology that provides encapsulation and controlled release of active molecules for a variety of applications including drug delivery, cosmeceuticals and specialty chemicals.

Australian Membrane Technologies Pty Ltd

Australian Membrane Technologies Pty Ltd (AMT) has been incorporated and is a 100 per cent-owned subsidiary of ANSTO. AMT utilises a unique biological approach and the use of advanced membranes for the efficient treatment and recycling of household and industrial waste water.

Partnerships and associated organisations

AINSE

Located on ANSTO's Lucas Heights campus, AINSE is a not-for-profit association of 39 universities and GNS Science in partnership with ANSTO. Thirty-six of the universities are in Australia and three are in New Zealand (NZ). AINSE celebrated its 50th anniversary this year.

AINSE's mission is to advance research, education and training in nuclear science and engineering and related fields within Australasia by being the key link between universities, ANSTO and other member organisations and major nuclear science and associated facilities.

ANSTO has a number of cooperative projects underway with the Australian Synchrotron. Photo courtesy Peter Bennett.

Access to Major Research Facilities Program

ANSTO operates the Access to Major Research Facilities Program. For Australian science to remain at the cutting edge, and for Australia to benefit from developments in technology, our scientists must have access to the best facilities in the world. This program includes large facilities not available in Australia, such as synchrotron radiation sources, high flux neutron beam sources, high energy physics facilities and astronomical facilities.

During the 2008-2009 financial year, the program funded 89 teams to perform experiments using facilities in the USA, Europe and Asia. ANSTO lead 14 of these teams.

Australian Synchrotron

Synchrotron radiation-based techniques are vital to a wide range of research fields: physics, chemistry, materials science, structural biology, polymer research, environmental science and geophysics. Synchrotron radiation techniques are similar to neutron scattering techniques (that require a reactor such as OPAL) and the results from each are often complementary, thus there is significant overlap in the user communities. It is an extremely exciting time for Australian researchers who now have a new synchrotron as well as a world-class nuclear reactor at home.

ANSTO has been a leader in the development of synchrotron radiation

research in Australia since the early 1990's. ANSTO managed the design and construction of Australia's first synchrotron beamline, built at the Photon Factory in Japan, and was the managing agent of the Australian Synchrotron Research Program (ASRP) from 1996 to 2008. ANSTO is one of ten foundation investors in the Australian Synchrotron.

ANSTO has special access to the Australian Synchrotron averaging six days per year on each beamline. Proposals for this special access are internally reviewed by ANSTO. ANSTO has used this beamtime to perform strategic experiments which are not well suited to a strict scientific merit review; for training and familiarisation of staff on new techniques; for a small molecule crystallography service and to give increased time allocations to ANSTO proposals which have been submitted to the normal scientific merit system. To date ANSTO has received approximately 30 days of beamtime under its agreement, involving experimental teams from all four research institutes.

In addition, ANSTO has a number of cooperative projects underway with the Australian Synchrotron. The synchrotron's online proposal and user administration system was developed and continues to be maintained by the Bragg Institute under a contract from the Australian Synchrotron. This is a significant benefit to users of the synchrotron and the neutron scattering instruments at OPAL as both facilities run the same online user system.

Australian Government

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Nuclear-based science benefiting all Australians

Performance against strategic objectives

Outcome 1 – Nuclear based infrastructure

Objective

The Open Pool Australian Light-water research reactor is operational and providing improved core nuclear facilities for industrial and research and development applications during 2008-2009.

Indicators	Performance
Level of compliance with project plan and achievement of specific milestones: • On time, to the extent within ANSTO's control • Within budget, to the extent within ANSTO's control	These indicators were reported on in the last Annual Report. The project is in the operational phase.

Output 1.1

Effective management of the commissioning of the OPAL reactor.

Indicators	Performance
• Complete performance demonstration (January 2008)	• As reported in the 2007-2008 Annual Report, completion of the performance demonstration was delayed by the defects relating to the fuel assemblies and the seepage in the reflector vessel which causes degradation of the purity of the heavy water reflector. Heavy water replacement in November 2008, allowed completion of the measurements required for performance demonstration. Following this work, reactor performance levels were formally recognised by awarding Practical Completion of the relevant part of the Reactor Contract.
• Complete contract (April 2008).	• Finalisation of the contract now requires demonstration of reactor reliability over a 19 month period.

Outcome 2 – Disposition of spent fuel

Objective

Removal of spent fuel from the ANSTO site in line with stringent safety arrangements and community expectations.

Indicators	Performance
Safety procedures adhered to fully and shipment is: • On time. • On budget.	The ninth and final shipment of HIFAR spent fuel left Sydney on 16 March 2009 and was received at its final destination in the United States on 21 May 2009. The shipment was completed on time and in budget.

Outcome 3 – Science and technology solutions

Output 3.1

Management of core nuclear facilities providing Australia with nuclear capability and credibility from which socio-economic benefits flow to Australia, the research and development community and industry.

Indicators	Performance	
	2007-2008	2008-2009
• Research beamline usage – percentage of all available days, across all instruments.	Nil*	68 per cent
• Research reactor availability – percentage of actual hours at power as a proportion of total hours planned to be at power.	12 per cent*	84 per cent
• Accelerator usage – percentage of all available days, excluding maintenance, for tandem accelerators.	79 per cent	85 per cent

* OPAL reactor was not operational for most of 2007-08.

Output 3.2

Expert scientific and technical services for and on behalf of government, in support of Australia's national and international strategic and nuclear policy objectives.

Indicators	Performance	
	2007-2008	2008-2009
• Leadership role in national and international forums and networked organisations – number of such roles	25	29
• Person-years by staff on projects that have as a primary objective providing advice to government	13.5	14.1

Output 3.3

The acquisition of knowledge, through research and its utilisation, through innovation, to advance the beneficial applications of nuclear science and technology to problems of environmental, medical, social and industrial importance.

Indicators	Performance	
	2007-2008	2008-2009
• Publication and conference papers*:		
- Books, chapters & monographs	1	2
- Journal articles	261	280
- Conference papers/abstracts	242	226
Total	504	508
• Number of research collaborations	109	224
• New inventions per year		
- Invention disclosures	7	6
- Provisional patent filing	3	0

*Publications are reported by calendar year (i.e. 2008)

Output 3.4

Education and training provided to industry, universities and schools, including students undertaking studies related to nuclear science and technology and its applications.

Indicators	Performance	
	2007-2008	2008-2009
• Number of postgraduates and undergraduates supervised	100	81
• External earnings from training courses	$162,750	$152,328

Output 3.5

Regular production and sale of radiopharmaceuticals and radioisotopes for medical and industrial applications and other services, through designated business units.

Indicators	Performance	
	2007-2008	2008-2009
• Radioisotope sales (total)	$20,589,854	$22,467,627
• Export sales	$5,226,941	$4,612,442
• Radiopharmaceutical doses to patients – potential doses	2,024,741	1,967,707

Output 3.6

The exploitation of ANSTO's expertise, intellectual property and physical assets.

Indicators	Performance	
	2007-2008	2008-2009
• Intellectual property being commercialised – inventions and designs with active commercialisation plans. Intellectual property being commercialised	16	10
• External earnings from services and contract research	$12,194,216	$15,967,828
• External earnings from land management and CSIRO site support	$5,069,226	$4,068,885

Australian Government

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Nuclear-based science benefiting all Australians

Financial statements

Australian National
Audit Office

INDEPENDENT AUDITOR'S REPORT

To the Minister for Science, Industry, Innovation and Research

Scope

I have audited the accompanying financial statements of the Australian Nuclear Science and Technology Organisation (ANSTO) and the consolidated entity for the year ended 30 June 2009, which comprise: a Statement by Directors and Chief Financial Officer; Income Statement; Balance Sheet; Statement of Cash Flows; Statement of Changes in Equity; Schedule of Commitments not Recognised as Liabilities; Schedule of Contingencies, and Notes to and forming part of the Financial Statements, including a Summary of significant accounting policies.

The Responsibility of the Members of the Board for the Financial Statements

The members of the Board are responsible for the preparation and fair presentation of the financial statements in accordance with Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997*, including Australian Accounting Standards (which include Australian Accounting Interpretations). This responsibility includes establishing and maintaining internal controls relevant to the preparation and fair presentation of the financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

Auditor's Responsibility

My responsibility is to express an opinion on the financial statements based on my audit. My audit has been conducted in accordance with Australian National Audit Office Auditing Standards, which incorporate Australian Auditing Standards. These auditing standards require that I comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to ANSTO's preparation and fair presentation of the

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 ANSTO's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the members of the Board, as well as evaluating the overall presentation of the financial statements.

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

Independence

In conducting the audit, I have followed the independence requirements of the Australian National Audit Office, which incorporate the requirements of the Australian accounting profession.

Auditor's Opinion

In my opinion, the financial statements of the Australian Nuclear Science and Technology Organisation and the consolidated entity:

(a) have been prepared in accordance with Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997*, including Australian Accounting Standards; and

(b) give a true and fair view of the matters required by the Finance Minister's Orders including the Australian Nuclear Science and Technology Organisation and the consolidated entity's financial position as at 30 June 2009 and of its financial performance and cash flows for the year then ended.

Australian National Audit Office

P Hinchey
Senior Director
Delegate of the Auditor-General

Sydney
25 August 2009

Statement by Directors and Chief Financial Officer

Australian Government

Australian Nuclear Science and Technology Organisation

In our opinion, the attached financial statements for the year ended 30 June 2009 have been prepared based on properly maintained financial records and give a true and fair view of the matters required by the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997*.

In our opinion, at the date of this statement, there are reasonable grounds to believe that the Australian Nuclear Science and Technology Organisation will be able to pay its debts as and when they become due and payable.

Signed in accordance with a resolution of the members of the Board.

Ziggy Switkowski
Chairman

14 August 2009
Sydney

Adi Paterson
Chief Executive Officer

14 August 2009
Sydney

Douglas Cubbin
Chief Financial Officer

14 August 2009
Sydney

Income Statement
for the year ended 30 June 2009

	Notes	Consolidated 2009 $'000	Consolidated 2008 $'000	Parent 2009 $'000	Parent 2008 $'000
INCOME					
Revenue					
Revenues from Government	5A	**173,115**	153,314	**173,115**	153,314
Goods and services	5B	**44,667**	40,492	**44,004**	39,931
Grants	5C	**1,916**	3,840	**1,906**	3,645
Interest	5D	**8,449**	8,861	**9,167**	8,867
Total Revenue		**228,147**	206,507	**228,192**	205,757
Gains					
Net gains from sale of assets	5E	**354**	320	**354**	320
Net foreign exchange gains - non speculative	5F	**463**	10	**434**	10
Other income	5G	**188**	110	**188**	110
Total Gains		**1,005**	440	**976**	440
TOTAL INCOME		**229,152**	206,947	**229,168**	206,197
EXPENSES					
Employee expenses	6A	**86,374**	89,532	**87,094**	89,375
Suppliers expenses	6B	**74,646**	62,221	**71,633**	59,124
Depreciation and amortisation	6C	**59,085**	60,833	**59,010**	60,828
Write down and impairment of assets	6D	**1,189**	2,117	**6,849**	2,115
Grants	6E	**3,651**	2,840	**3,651**	2,840
Finance costs	6F	**8,258**	8,063	**8,258**	8,063
TOTAL EXPENSES		**233,203**	225,606	**236,495**	222,345
Deficit before income tax		**(4,051)**	(18,659)	**(7,327)**	(16,148)
Income tax benefit		**96**	75	**-**	-
Deficit after income tax		**(3,955)**	(18,584)	**(7,327)**	(16,148)

The above statement should be read in conjunction with the accompanying notes

Balance Sheet
as at 30 June 2009

	Notes	Consolidated 2009 $'000	Consolidated 2008 $'000	Parent 2009 $'000	Parent 2008 $'000
ASSETS					
Financial assets					
Cash	7A, 21	**3,752**	9,302	**3,265**	3,852
Receivables	7B, 21	**9,557**	9,844	**16,176**	14,581
Investments	7C, 21	**142,661**	127,880	**146,979**	132,880
Total financial assets		**155,970**	147,026	**166,420**	151,313
Non-financial assets					
Land and buildings	8A	**157,645**	173,608	**157,645**	173,608
Infrastructure, plant and equipment and major facilities	8B	**612,299**	632,542	**602,404**	632,086
Inventories	8C	**8,711**	7,701	**8,711**	7,701
Intangibles	8D	**5,241**	1,513	**5,241**	1,513
Other	8E	**4,404**	1,909	**3,634**	1,328
Total non-financial assets		**788,300**	817,273	**777,635**	816,236
Total assets		**944,270**	964,299	**944,055**	967,549
LIABILITIES					
Payables					
Suppliers	9E, 21	**8,263**	9,134	**8,150**	8,933
Grants	9F, 21	**575**	128	**575**	128
Other	9G, 21	**1,171**	1,194	**1,171**	1,194
Total payables		**10,009**	10,456	**9,896**	10,255
Interest bearing liabilities					
Other	9A, 21	**3,308**	3,116	**3,308**	3,116
Total interest bearing liabilities		**3,308**	3,116	**3,308**	3,116
Provisions					
Employees	9B	**24,822**	25,776	**24,795**	25,776
Decommissioning Costs	9C	**119,374**	181,757	**119,374**	181,757
Other	9D	**2,007**	4,571	**2,007**	4,571
Total provisions		**146,203**	212,104	**146,176**	212,104
Total liabilities		**159,520**	225,676	**159,380**	225,475
NET ASSETS		**784,750**	738,623	**784,675**	742,074
EQUITY	10				
Contributed equity		**447,856**	446,256	**447,856**	446,256
Reserves		**291,119**	270,133	**290,828**	270,146
Retained surpluses		**45,775**	22,234	**45,991**	25,672
Total equity		**784,750**	738,623	**784,675**	742,074
Current assets		**163,400**	153,561	**173,850**	157,848
Non-current assets		**780,870**	810,738	**770,205**	809,701
Current liabilities		**33,455**	41,420	**33,315**	41,219
Non-current liabilities		**126,065**	184,256	**126,065**	184,256

The above statement should be read in conjunction with the accompanying notes

Statement of Cash Flows
for the year ended 30 June 2009

	Notes	Consolidated 2009 $'000 Inflows (Outflows)	Consolidated 2008 $'000 Inflows (Outflows)	Parent 2009 $'000 Inflows (Outflows)	Parent 2008 $'000 Inflows (Outflows)
OPERATING ACTIVITIES					
Cash received					
Goods and services		**42,682**	42,460	**42,214**	41,714
Interest		**8,497**	7,507	**8,864**	7,513
Net GST received from Australian Taxation Office		**4,087**	4,205	**3,158**	4,205
GST receipts from Customer		**4,213**	3,886	**4,186**	3,886
Appropriations		**173,115**	153,314	**173,115**	153,314
Total cash received		**232,594**	211,372	**231,537**	210,632
Cash used					
Employees		**(79,256)**	(88,409)	**(88,075)**	(88,252)
Suppliers		**(102,103)**	(72,730)	**(90,080)**	(68,571)
Total cash used		**(181,359)**	(161,139)	**(178,155)**	(156,823)
Net cash from operating activities	11	**51,235**	50,233	**53,382**	53,809
INVESTING ACTIVITIES					
Cash received					
Proceeds from sale of property, plant and equipment		**1,564**	1,089	**1,564**	1,089
Proceeds from sale/maturity of investments		**64,189**	139,896	**64,189**	139,896
Total cash received		**65,753**	140,985	**65,753**	140,985
Cash used					
Purchase of property, plant and equipment		**(45,850)**	(34,876)	**(36,234)**	(34,412)
Loans to related parties		**-**	-	**(6,800)**	(3,734)
Purchase of investments		**(78,288)**	(183,673)	**(78,288)**	(188,673)
Total cash used		**(124,138)**	(218,549)	**(121,322)**	(226,819)
Net cash used by investing activities		**(58,385)**	(77,564)	**(55,569)**	(85,834)
FINANCING ACTIVITIES					
Cash received					
Appropriation - contributed equity		**1,600**	32,400	**1,600**	32,400
Total cash received		**1,600**	32,400	**1,600**	32,400
Net cash from financing activities		**1,600**	32,400	**1,600**	32,400
Net increase/(decrease) in cash held		**(5,550)**	5,069	**(587)**	375
Cash at 1 July		**9,302**	4,233	**3,852**	3,477
Cash at 30 June		**3,752**	9,302	**3,265**	3,852

The above statement should be read in conjunction with the accompanying notes

Statement of changes in equity
for the year ended 30 June 2009

	Consolidated					
	Retained Surpluses		Asset Revaluation Reserve		Other Reserves	
	2009 $'000	2008 $'000	**2009 $'000**	2008 $'000	**2009 $'000**	2008 $'000
Opening Balance	**22,234**	56,465	**229,248**	229,765	**40,885**	25,260
Income and Expenses						
Foreign currency translation	**-**	-	**-**	-	**19**	(22)
Revaluation increment	**-**	-	**48,463**	(517)	**-**	-
Subtotal income and expenses recognised directly in equity	**-**	-	**48,463**	(517)	**19**	(22)
Deficit for the period	**(3,955)**	(18,584)		-	**-**	-
Total income and expenses	**(3,955)**	(18,584)	**48,463**	(517)	**19**	(22)
Contributions by Owners						
Appropriation (equity injection)	**-**	-	**-**	-		-
Sub-total Transactions with Owners	**-**	**-**	**-**	**-**	**-**	**-**
Transfers between equity components	**27,496**	(15,647)	**-**	-	**(27,496)**	15,647
Closing balance as at 30 June	**45,775**	22,234	**277,711**	229,248	**13,408**	40,885

	Parent					
	Retained Surpluses		Asset Revaluation Reserve		Other Reserves	
	2009 $'000	2008 $'000	**2009 $'000**	2008 $'000	**2009 $'000**	2008 $'000
Opening Balance	**25,672**	57,467	**229,239**	229,765	**40,907**	25,260
Income and Expenses						
Revaluation increment	**-**	-	**48,328**	(526)	**-**	-
Subtotal income and expenses recognised directly in equity	**-**	-	**48,328**	(526)	**-**	-
Deficit for the period	**(7,327)**	(16,148)	**-**	-	**-**	-
Total income and expenses	**(7,327)**	(16,148)	**48,328**	(526)	**-**	-
Transaction with Owners						
Contributions by Owners						
Appropriation (equity injection)	**-**	-	**-**	-	**-**	-
Sub-total Transactions with Owners	**-**	**-**	**-**	**-**	**-**	**-**
Transfers between equity components	**27,646**	(15,647)	**-**	-	**(27,646)**	15,647
Closing balance as at 30 June	**45,991**	25,672	**277,567**	229,239	**13,261**	40,907

The above statement should be read in conjunction with the accompanying notes

Statement of changes in equity
for the year ended 30 June 2009

	Consolidated			
	Contributed Equity/Capital		Total Equity	
	2009 $'000	2008 $'000	**2009 $'000**	2008 $'000
Opening Balance	**446,256**	413,856	**738,623**	725,346
Income and Expenses				
Foreign currency translation	-	-	**19**	(22)
Revaluation increment	**-**	-	**48,463**	(517)
Subtotal income and expenses recognised directly in equity	**-**	-	**48,482**	(539)
Deficit for the period	**-**	-	**(3,955)**	(18,584)
Total income and expenses	-	-	**44,527**	(19,123)
Contributions by Owners				
Appropriation (equity injection)	**1,600**	32,400	**1,600**	32,400
Sub-total Transactions with Owners	**1,600**	32,400	**1,600**	32,400
Transfers between equity components	**-**	-	**-**	-
Closing balance as at 30 June	**447,856**	446,256	**784,750**	738,623

	Parent			
	Contributed Equity/Capital		Total Equity	
	2009 $'000	2008 $'000	**2009 $'000**	2008 $'000
Opening Balance	**446,256**	413,856	**742,074**	726,348
Income and Expenses				
Revaluation increment	**-**	-	**48,328**	(526)
Subtotal income and expenses recognised directly in equity	**-**	-	**48,328**	(526)
Deficit for the period	**-**	-	**(7,327)**	(16,148)
Total income and expenses	-	-	**41,001**	(16,674)
Transaction with Owners				
Contributions by Owners				
Appropriation (equity injection)	**1,600**	32,400	**1,600**	32,400
Sub-total Transactions with Owners	**1,600**	32,400	**1,600**	32,400
Transfers between equity components	**-**	-	**-**	-
Closing balance as at 30 June	**447,856**	446,256	**784,675**	742,074

The above statement should be read in conjunction with the accompanying notes

Schedule of Commitments not recognised as liabilities as at 30 June 2009

	Notes	Consolidated 2009 $'000	Consolidated 2008 $'000	Parent 2009 $'000	Parent 2008 $'000
BY TYPE					
CAPITAL COMMITMENTS					
Infrastructure, plant and equipment		**14,485**	5,913	**14,485**	5,913
Fuel elements purchase		**9,830**	618	**9,830**	618
Total capital commitments		**24,315**	6,531	**24,315**	6,531
By maturity					
Capital commitments payable					
One year or less		**16,509**	2,949	**16,509**	2,949
From one to five years		**7,806**	3,582	**7,806**	3,582
		24,315	6,531	**24,315**	6,531
OTHER COMMITMENTS					
Replacement Research Reactor Project (OPAL)	(b)	**9,340**	12,044	**9,340**	12,044
Disposition of spent fuel	(a)	**1,234**	19,690	**1,234**	19,690
Operating lease	(c)	**2,136**	2,274	**2,136**	2,274
Return of waste to Australia	(d)	**1,223**	-	**1,223**	-
Total other commitments		**13,933**	34,008	**13,933**	34,008
Total commitments payable		**38,248**	40,539	**38,248**	40,539
Other commitments receivable					
Replacement Research Reactor Project (OPAL)	(b)	**-**	-	**-**	-
Disposition of spent fuel	(a)	**1,234**	19,690	**1,234**	19,690
GST recoverable from Australian Taxation Office		**2,210**	594	**2,210**	594
Total other commitments receivable		**3,444**	20,284	**3,444**	20,284
Net other commitments		**10,489**	13,724	**10,489**	13,724
By maturity - other commitments					
One year or less		**9,400**	12,044	**9,400**	12,044
From one to five years		**1,163**	-	**1,163**	-
		10,563	12,044	**10,563**	12,044
By maturity - operating lease - minimum payments					
One year or less		**137**	137	**137**	137
From one to five years		**685**	685	**685**	685
Over five years		**1,314**	1,452	**1,314**	1,452
		2,136	2,274	**2,136**	2,274

(a) In 1997-1998 the Government determined to provide $99.011 million in 2009 dollars ($99.005 million in 1998 dollars) to remove spent fuel rods from the Lucas Heights Science and Technology Centre and meet the costs of reprocessing offshore. An amount of $89.394 million has been drawn down. The amount of $1.234 million is not included in the commitment by maturity figures as the commitment payable is fully offset by the commitment receivable.

(b) A contract was executed on 13 July 2000 between ANSTO and INVAP SE for the design, construction and commissioning of a replacement research reactor at Lucas Heights. The amount of $9.340 million (2008: $12.044 million) is included in the commitment by maturity.

(c) ANSTO has a twenty five year lease contract with Central Sydney Area Health Services with an annual rental payable of $137,000. The annual rental is subject to review every three years.

(d) ANSTO has a commitment relating to the return to Australia of the processed waste from HIFAR fuel rods as follows:
• From 22 Dec 2010, ANSTO is commited to pay an annual combined storage and management fee of AUD 120,165 to Nuclear Decommissioning Authority (NDA) of the UK until the return of the waste to Australia in 2015/2016.
• In 2013, ANSTO is commited to providing a "performance bond" to Cogema of France of a sum equivalent to $1.5 miilion French Francs in 1999 terms or AUD 501,836 in 2009 dollars.

The timing of the other commitments payable is matched to the receipt of other commitments receivable.

The amounts reported as commitments payable includes GST where relevant. Recoveries due from the Australian Taxation Office in relation to commitments payable are disclosed as commitments receivable.

The above schedule should be read in conjunction with the accompanying notes.

Schedule of Contingencies as at 30 June 2009

	Consolidated		Parent	
	2009	2008	**2009**	2008
	$'000	$'000	**$'000**	$'000
Contingent Liabilities				
Guarantee (a)	**1,480**	1,480	**1,480**	1,480
Waste return to Australia (b)	**11,710**	-	**11,710**	-
	13,190	1,480	**13,190**	1,480

(a) Unused overdraft facility.

(b) ANSTO has a contingent liability with COGEMA relating to the waste return services amounting to 35 million French Francs in 1999 terms. The contract contains a formula for escalation and it is equivalent to be AUD$11.7 million in 2009 dollars.

ANSTO still has the likelihood of claims in relation to asbestos related diseases, as such claims are however covered by the Department of Finance and Deregulation provision dealing with asbestos related claims against any Commonwealth Authorities including ANSTO in the event of any litigation or claim for compensation.

The above schedule should be read in conjunction with the accompanying notes.

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

1 Economic dependency

The continued existence and operations of the Australian Nuclear Science and Technology Organisation (ANSTO) and its present programs is dependent on Government policy and on continuing funding by the Commonwealth Government for ANSTO's administration and programs.

2 Summary of significant accounting policies

(a) Basis of preparation of the Financial Report

The financial statements and notes are required by clause 1(b) of Schedule 1 to the *Commonwealth Authorities and Companies Act 1997 (CAC Act)* and are a General Purpose Financial Report.

They have been prepared:

i. having regard to the provisions of the Australian Nuclear Science and Technology Organisation (*ANSTO)* Act 1987 (*as amended)*

ii. in accordance with:

- Finance Minister's Orders (FMOs) for reporting periods ending on or after 1 July 2008; and
- Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board (AASB) that apply for the reporting period.

The financial report has been prepared on an accruals basis and is in accordance with the historical cost convention, except for certain assets which are stated at fair value.

The financial report is presented in Australian dollars and values are rounded to the nearest thousand dollars unless otherwise specified.

Unless an alternative treatment is specifically required by an Accounting Standard or the FMOs, assets and liabilities are recognised in the Balance Sheet when and only when it is probable that future economic benefits will flow to ANSTO and the amounts of the assets or liabilities can be reliably measured. However, assets and liabilities arising under agreements equally proportionately unperformed are not recognised unless required by an Accounting Standard. Liabilities and assets that are unrecognised are reported in the Schedule of Commitments and the Schedule of Contingencies.

Unless alternative treatment is specifically required by an Accounting Standard or the FMOs, revenues and expenses are recognised in the Income Statement when and only when the flow, consumption or loss of economic benefits has occurred and can be reliably measured.

(b) Significant Accounting Judgements and Estimates

In the process of applying the accounting policies listed in this note, ANSTO has made the following judgements that have the most significant impact on the amounts recorded in the financial statements.

The fair value of land and buildings has been taken to be the market value of similar properties as determined by an independent valuer.

Apart from assumptions and estimates relating to the Decommissioning provision, no other accounting assumptions or estimates have been identified that have a significant risk of causing a material adjustment to carrying amounts of assets and liabilities within the next accounting period.

(c) Statement of Compliance

Australian Accounting Standards require a statement of compliance with International Financial Reporting Standards (IFRSs) to be made where the financial report complies with these standards. Some Australian equivalents to IFRSs and other Australian Accounting Standards contain requirements specific to not-for-profit entities that are inconsistent with IFRS requirements. ANSTO is a not-for-profit entity and has applied these requirements, so while this financial report complies with Australian Accounting Standards including Australian Equivalents to International Financial Reporting Standards (AEIFRSs) it does not comply with IFRS.

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

(d) Adoption of new Australian Accounting Standard requirements

No accounting standard has been adopted earlier than the application date as stated in the standard.

ANSTO is required to disclose Australian Accounting Standards and Interpretations which have been issued but are not yet effective that have not been early adopted by ANSTO. There are no such standards that have resulted in a change to ANSTO's accounting policies or that have affected the amounts reported in the current or prior periods or are estimated to have a financial affect in future reporting periods.

Other effective requirement changes

The following amendments, revised standards or interpretations have become effective but have had no financial impact or do not apply to the operations of ANSTO.

Amendments:
- 2007-2 Amendments to Australian Accounting Standards [AASB Interpretation 12]
- 2007-9 Amendments to Australian Accounting Standards [AASs 27, 29 and 31]
- 2008-10 Amendments to Australian Accounting Standards [AASB 7, 12 and 127]
- 2008-12 Amendments to Australian Accounting Standards [AASB 7, 12, 127 and Interpretation 113]
- 2009-3 Amendments to Australian Accounting Standards [AASB 139 and Interpretation 9]
- Restriction of the fair value option under AASB139

Interpretations:
- AASB Interpretation 4 *Determining whether an Arrangement contains a Lease*
- AASB Interpretation 12 *Service Concession Arrangement* (Feb 2007)
- AASB Interpretation 13 *Customer Loyalty Programmes*
- AASB Interpretation 14 AASB 119 - T*he Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction*
- AASB Interpretation 129 *Service Concession Arrangements: Disclosures*
- AASB Interpretation 1038 *Contributions by Owners Made to Wholly-Owned Public Sector Entities*

Future Australian Accounting Standard requirements

The following new standards, amendments to standards or interpretations have been issued by the Australian Accounting Standards Board but are effective for future reporting periods. It is estimated that the impact of adopting these pronouncements when effective will have no material financial impact on future reporting periods.

- AASB 2007-3 Amendments to Australian Accounting Standards [AASB 8]
- AASB 2007-6 Amendments to Australian Accounting Standards [AASB 123]
- AASB 2007-8 Amendments to Australian Accounting Standards [AASB 101]
- AASB 2007-10 Amendments to Australian Accounting Standards [AASB 101]
- AASB 2008-3 Amendments to Australian Accounting Standards [AASB 3 and 127]
- AASB 2008-7 Amendments to Australian Accounting Standards [AASB 1, 118, 121, 127 and 136]
- AASB 2008-11 Amendments to Australian Accounting Standards [AASB 3]
- AASB 2009-1 Amendments to Australian Accounting Standards [AASB 1, 111 and 123]
- AASB 2009-2 Amendments to Australian Accounting Standards [AASB 4, 7, 1023 and 1038]
- AASB Interpretation 1 *Changes in Existing Decommissioning, Restoration and Similar Liabilities*

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

(e) Reporting by outcomes

A comparison of current and prior years' figures by outcome as specified in the Portfolio Budget Statements relevant to ANSTO, is presented in Note 4.

(f) Revenue recognition

Revenue from Government

Funding received or receivable from Department of Innovation, Industry, Science and Research (DIISR) (appropriated to ANSTO as a CAC Act body) is recognised as Revenue from Government unless it is in the nature of an equity injection.

Equity injections

Amounts that are designated as equity injections for a year are recognised directly in contributed equity in that year.

Operating revenue from goods and services
Revenue from the sale of goods is recognised when:
- The risks and rewards of ownership have been transferred to the buyer;
- The seller retains no managerial involvement nor effective control over the goods;
- The revenue and transaction costs incurred can be reliably measured; and
- It is probable that the economic benefits associated with the transaction will flow to ANSTO.

Receivables for goods and services are recognised at the nominal amounts due less any provision for doubtful debts. Collectibility of debts is reviewed at balance date. Provision is made when collectibility of the debt is no longer probable.

Revenue received in advance
Revenue received in advance is initially brought to account as "unearned revenue" and subsequently recognised as revenue when earned.

Contract revenue
Revenue from the rendering of a service is recognised by reference to the stage of completion of each contract. The stage of completion is determined by reference to the proportion that the completed physical contract work bears to the estimated total physical contract work.

Interest revenue
Interest revenue is recognised as the interest is received or is entitled to be received.

Revenue from sale of assets
Revenue is recognised when control of the asset has passed to the buyer.

Core operations
All material revenues described in this note are revenues relating to the core operating activities of ANSTO.
Details of revenue amounts are given in Note 5.

Resources Received Free of Charge

Resources received free of charge are recognised as revenue when and only when a fair value can be reliably determined and the services would have been purchased if they had not been donated. Use of those resources is recognised as an expense.

Resources received free of charge are recorded as either revenue or gains depending on their nature i.e. whether they have been generated in the course of the ordinary activities of ANSTO.

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

(g) Employee benefits

Benefits

Liabilities for services rendered by employees are recognised at the reporting date to the extent that they have not been settled.

Liabilities for wages and salaries and annual leave are measured at their nominal amounts. Other employees benefits expected to be settled within 12 months of their reporting date are also measured at their nominal amounts.

The provision for employee entitlements encompasses annual leave and long service leave that ANSTO has a present obligation to pay resulting from employee services provided up to balance date. The leave liabilities are calculated on the basis of employees' remuneration, including employer superannuation contribution rates to the extent that the leave is likely to be taken during service rather than paid out on termination. The estimate of the present value of the liability takes into account attrition rates and pay increases through promotion and inflation.

The nominal amount is calculated with regard to the rates expected to be paid on settlement of the liability. The current Enterprise Agreement pay rates applicable on 28 December 2009 are considered in the calculation. The financial effect of this was an additional accrual of $0.305 million (2008: $0.306 million).

General leave

The Enterprise Agreement provides under the heading General Leave for an employee entitlement which combines sick leave, carer's leave and leave for other prescribed purposes. No provision has been made for general leave as all such leave is non-vesting and the average general leave taken by employees is less than the annual entitlement.

Separation and redundancy

Provision is made for separation and redundancy benefits payments. ANSTO recognises a provision for termination when it has developed a detailed formal plan for the termination and has informed those employees affected that it will carry out the termination. The total provision in the accounts for 2 staff (2008: 39) amounted to $ 0.237 million (2008: $2.6 million).

(h) Superannuation

ANSTO contributes to the Commonwealth Superannuation (CSS) and the Public Sector (PSS) superannuation schemes or PSS accumulation plan (PSSap) which provide retirement, death and disability benefits to employees. The CSS and PSS are defined benefit schemes for the Commonwealth while the PSSap is a defined contribution scheme. Contributions to the schemes are at rates calculated to cover existing and emerging obligations. Current contribution rates in 2009 were 12.5% (2008 10.9%) of salary (PSS), 25.7% (2008 25.3%) of salary (CSS), and 15.4% (2008 15.4%) of salary (PSSap). An additional 3% is contributed to PSS and CSS for employer productivity benefits. For those staff who do not contribute to any of these schemes, ANSTO contributes 9% of salary to the Australian Government Employees Superannuation Trust fund or to the complying fund nominated by the employee. The Enterprise Agreement signed in April 2009 provided that all ANSTO employees under the agreement that contributed to other than the Commonwealth superannuation schemes received contribution of 15.4% of salary.

Contributions during the year are detailed in Note 6A. No liability is shown for superannuation in the Balance Sheet as the employer contributions fully extinguish the accruing liability which is assumed by the Commonwealth.

(i) Leases

Operating leases are expensed on a basis which is representative of the pattern of benefits derived from the leased assets.

(j) Cash

Cash and cash equivalents includes notes and coins held and any deposits held at call with a bank or financial institution. Cash is recognised at its nominal amount.

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

(k) Financial instruments

ANSTO classifies its financial assets in the following categories:
- 'financial assets as 'at fair value through profit or loss'
- 'held-to-maturity investments'
- 'loans and receivables'.

The classification depends on the nature and purpose of the financial assets and is determined at the time of initial recognition.

Financial assets are recognised and derecognised upon 'trade date'.

Effective interest method

The effective interest method is a method of calculating the amortised cost of a financial asset and of allocating interest income over the relevant period. The effective interest rate is the rate that discounts estimated future cash receipts through the expected life of the financial asset, or, where appropriate, a shorter period.

Income is recognised on an effective interest rate basis except for financial assets 'at fair value through profit or loss'.

Financial assets at fair value through profit or loss

Financial assets are classified as financial assets at fair value through profit or loss where the financial assets have been acquired principally for the purpose of selling in the near future.

Assets in this category are classified as current assets.

Financial assets at fair value through profit or loss are stated at fair value, with any resultant gain or loss recognised in the profit or loss. The net gain or loss recognised in the profit or loss incorporates any interest earned on the financial assets.

Where a reliable fair value cannot be established for unlisted investments in equity instruments, cost is used.

ANSTO has no such instruments.

Held-to-maturity investments

Non-derivative financial assets with fixed or determinable payments and fixed maturity dates that the group has the positive intent and ability to hold to maturity are classified as held-to-maturity investments. Held-to-maturity investments are recorded at amortised cost using the effective interest method less impairment, with revenue recognised on an effective yield basis.

Loans and receivables

Trade receivables, loans and other receivables that have fixed or determinable payments that are not quoted in an active market are classified as 'loans and receivables'. They are included in current assets, except those with for maturities greater than 12 months after the balance sheet date. These are classified as non current assets. Loans and receivables are measured at amortised cost using the effective interest method less impairment. Interest is recognised by applying the effective interest rate.

Impairment of financial assets

Financial assets are assessed for impairment at each balance date.

Financial Liabilities

Financial liabilities are recognised and derecognised upon 'trade date'.

Other financial liabilities

Other financial liabilities, including borrowings, are initially measured at fair value, net of transaction costs.

Other financial liabilities are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis.

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period.

Supplier and other payables

Supplier and other payables are recognised at amortised cost. Liabilities are recognised to the extent that the goods or services have been received (and irrespective of having been invoiced).

(l) Bad and doubtful debts

Bad debts are written off during the period in which they are identified. Provision for doubtful debts is made when collection of the debt is judged to be less rather than more likely.

(m) Buildings, infrastructure, plant and equipment and major facilities

Asset recognition threshold

Items of buildings, infrastructure, plant and equipment and major facilities are recorded at cost of acquisition and depreciated as outlined below. Items of plant and equipment with a cost of less than $3,000 are expensed in the year of acquisition.

The initial cost of an asset includes an estimate of the cost of dismantling and removing the item and restoring the site on which it is located at the end of its useful life. This is particularly relevant to 'make good' provisions in buildings, infrastructure, plant and equipment and major facilities, taken up by ANSTO where there exists an obligation to restore the property to its original condition. These costs are included in the value of the asset it relates to with a corresponding provision for the 'make good' taken up.

The cost of assets constructed by the entity includes the cost of materials, direct labour and an appropriate proportion of fixed and variable overheads.

Revaluations

Fair values for each class of asset are determined as shown below:

Asset Class	Fair value measured at
Land	Market Value
Buildings	Market Value
Site infrastructure	Market Value
Electrical infrastructure	Market Value
Plant and equipment	Market Value
National and major facilities	Market Value

Land, buildings, plant and equipment are carried at fair value, and will be valued every five years such that the carrying amount of each asset is not materially different, at reporting date, from its fair value.

. Freehold land was revalued as at 30 June 2007
. Buildings on freehold land were revalued at 30 June 2007
. Plant and equipment were revalued at 30 June 2007
. Infrastructure was revalued at 30 June 2007
. Other national and major facilities were revalued at 30 June 2007 with the exception of OPAL and Neutron Beam Instruments (NBI) .
. OPAL and NBI facilities were revalued at 30 June 2009
. The HIFAR reactor including instrumentation was written off following its closure during the 2006-07 year. A provision for the cost of decommissioning of HIFAR over an extended period remains in the accounts.

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

Following initial recognition at cost, buildings, infrastructure, plant and equipment and major facilities are carried at fair value less accumulated depreciation and accumulated impairment losses. Valuations are conducted with sufficient frequency to ensure that the carrying amounts of assets do not differ materially from the assets' fair values as at the reporting date. The regularity of independent valuations depends upon the volatility of movements in market values for the relevant assets.

Revaluation adjustments are made on a class basis. Any revaluation increment is credited to equity under the heading of asset revaluation reserve except to the extent that it reverses a previous revaluation decrement of the same asset class that was previously recognised through profit and loss. Revaluation decrements for a class of assets are recognised directly through profit and loss except to the extent that they reverse a previous revaluation increment for that class.

Any accumulated depreciation as at the revaluation date is eliminated against the gross carrying amount of the asset and the asset restated to the revalued amount.

The valuation of land, buildings, infrastructure, plant and equipment including national and other major facilities were performed by independent valuers of the Australian Valuation Office (AVO), Mr. Frank Andreatta and Mr. Simon O'Leary (registered Valuer Nos. 2388 and 1128 respectively) at 30 June 2007, based on the asset list at 28 February 2007.

Certain assets (Note 8B) are valued at Board Valuation effective 30 June 2007.

The OPAL and NBI valuations were performed by Mr. Simon O'Leary (registered Valuer No. 1128) of AVO based on the asset list at 31 May 2009.

Depreciation and amortisation
Items of buildings, infrastructure, plant and equipment and major facilities, but excluding freehold land, are depreciated over their estimated useful lives to ANSTO using the straight line method.

Depreciation and amortisation rates applying to each class of depreciable asset are based on the following useful lives:

	2009	2008
Buildings on freehold land	5 to 50 years	5 to 50 years
Plant and equipment	2 to 30 years	2 to 30 years
Infrastructure	20 years	20 years
National and major facilities	5 to 40 years	5 to 40 years

The depreciation rates (useful lives) of ANSTO's buildings, infrastructure, plant and equipment and major facilities have been reviewed during the year and found to be appropriate.

The aggregate amount of depreciation allocated for each class of asset during the reporting period is disclosed in Note 6C.

Impairment
All assets were assessed for impairment at 30 June 2009. Where indications of impairment exist, the asset's recoverable amount is estimated and an impairment adjustment made if the asset's recoverable amount is less than its carrying amount.

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

(n) Inventories

Stores are valued at purchase cost on a first-in-first-out basis. Provision is made for obsolete inventory and diminution in value.

Inventories of Cobalt-60 and enriched, natural and depleted uranium are valued on the basis of net realisable value.

Stocks of reactor fuel are valued at average purchase price.

Heavy water is valued at net realisable value.

Finished goods and work in progress are valued at cost of direct materials and labour plus attributable costs that are capable of being allocated on a reasonable basis.

(o) Intangibles

Software
Items of software are recorded at cost and amortised as outlined below. Items with a cost of less than $3,000 are expensed in the year of acquisition.

There is no material internal software development.

Software and licences are reported at deemed cost.

Amortisation
Intangibles are amortised over their estimated useful lives to ANSTO using the straight line method.

Amortisation rates applying to intangibles are as follows:

	2009	2008
Purchased software	**2 - 7 years**	2 - 7 years
Licences	**3 years**	3 years

The amortisation rates (useful lives) of ANSTO's software and licences have been reviewed during the year and found to be appropriate.

The aggregate amount of amortisation allocated for each class of asset during the reporting period is disclosed in Note 6C.

Impairment
All assets were assessed for impairment at 30 June 2009. Where indications of impairment exist, the asset's recoverable amount is estimated and an impairment adjustment made if the asset's recoverable amount is less than its carrying amount

(p) Patents

Due to the uncertain commercial value of patents, trademarks, designs and applications, and because benefits extending beyond one accounting period cannot be assured, the costs associated with the development and registration of patents are expensed in the year in which they are incurred, unless recoverability is assured beyond any reasonable doubt. At 30 June 2009 there were 208 patents, trademarks, design and applications (90 at 30 June 2008) registered to ANSTO and no associated costs are recognised as an asset (nil at 30 June 2008).

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

(q) Foreign currency

Transactions denominated in a foreign currency are converted to Australian currency at the rate of exchange prevailing at the date of the transaction. At balance date, amounts receivable and payable in foreign currency are translated to Australian currency at the exchange rate prevailing at that date and any exchange differences are brought to account in the Income Statement. ANSTO did not enter into specific forward exchange contracts during the reporting period.

(r) Taxation

ANSTO is exempt from all forms of taxation in Australia except fringe benefits tax (FBT) and the goods and services tax (GST).
ANSTO is not subject to exemption from any foreign taxation laws relative to its overseas operations.
ANSTO's subsidiaries are subject to normal taxation.
ANSTO Inc, a USA company, has recognised a Deferred Tax Asset of USD $251,000 or AUD $318,000
(2008: USD $175,000 or AUD $178,000).

Unbooked deferred tax assets in relation to tax losses in the subsidiaries is $778,192 (2008:$921,090).

In respect of the subsidiaries, current tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered from or paid to the taxation authorities based on the current period's taxable income. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted by the balance sheet date.

Deferred income tax is provided on all temporary differences at the balance sheet date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

Deferred income tax liabilities are recognised for all taxable temporary differences except:
• when the deferred income tax liability arises from the initial recognition of goodwill or of an asset or liability in a transaction that is not a business combination and that, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; or
• when the taxable temporary difference is associated with investments in subsidiaries, associates or interests in joint ventures, and the timing of the reversal of the temporary difference can be controlled and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred income tax assets are recognised for all deductible temporary differences, carry forward of unused tax credits and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences and the carry forward of unused tax credits and unused tax losses can be utilised, except:
• when the deferred income tax asset relating to the deductible temporary difference 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 the accounting profit nor taxable profit or loss; or
• when the deductible temporary difference is associated with investments in subsidiaries, associates or interests in joint ventures, in which case a deferred tax asset is only recognised to the extent that it is probable that the temporary difference will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilised.

Unrecognised deferred income tax assets are reassessed at each balance sheet date and are recognised to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered.
Deferred income tax assets and liabilities are measured at the tax rates that are expected to apply to the year when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the balance sheet date.

Deferred tax assets and deferred tax liabilities are offset only if a legally enforceable right exists to set off current tax assets against current tax liabilities and the deferred tax assets and liabilities relate to the same taxable entity and the same taxation authority.

(s) Assets received free of charge

The acquisition of assets free of charge or for a nominal amount are recognised at fair value.

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

(t) Principles of consolidation

ANSTO has investments in a number of companies (refer Note 7D) over which it has control. These companies have been established for the purpose of (i) commercialisation of ANSTO's intellectual property or (ii) a requirement for ANSTO to operate in the industry as in the case of ANSTO Inc., the US operation.

(u) Comparatives

Where necessary, comparative information for the preceding financial year has been reclassified to achieve consistency in disclosure with current financial year amounts and other disclosures.

(v) Rounding

Amounts are rounded to the nearest one thousand dollars except in relation to:
- remuneration of members of the Board
- remuneration of executives
- remuneration of auditors
- financial information about the subsidiary companies and their balances

3 Events subsequent to reporting

On 21 July 2009, both AMT and CeramiSphere's Board resolved to issue shares to ANSTO equivalent to the amount of the convertible notes and outstanding interest as at 30 June 2009.

On 24 July 2009, AMT and ANSTO mutually agreed to terminate the Licence Agreement that gave AMT rights to develop and commercialise the technology.
Subsequently ANSTO assigned an exclusive licence to Avant Garde Pty Ltd to commercialise the technology through their newly created company called Bio-Gill Environmental Pty Ltd.

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

4 Segment and outcomes reporting

Reporting by segments for Parent Entity

ANSTO operates in a single industry, nuclear scientific research industry mainly within Australia.

Reporting by outcomes:

ANSTO has three outcomes and each have one output.

Outcome 1: Replacement Research Reactor Project (OPAL)
Outcome 2: Disposal of spent fuel
Outcome 3: Core business: science and technology

Major Classes of Departmental Revenues and Expenses by Output Groups and Output - Parent Entity

	Outcome 1		Outcome 2		Outcome 3		Total	
	Output 1		Output 2		Output 3			
	2009	2008	**2009**	2008	**2009**	2008	**2009**	2008
	$'000	$'000	**$'000**	$'000	**$'000**	$'000	**$'000**	$'000
Operating revenues								
Revenue from Government			**10,079**	798	**163,036**	152,516	**173,115**	153,314
Sale of goods and services					**44,004**	39,931	**44,004**	39,931
Interest					**9,167**	8,867	**9,167**	8,867
Net gain from sale of assets					**354**	320	**354**	320
Other					**2,528**	3,765	**2,528**	3,765
Total operating revenues	**0**	0	**10,079**	798	**219,089**	205,399	**229,168**	206,197
Operating expenses								
Employees			**561**	66	**86,533**	89,309	**87,094**	89,375
Suppliers			**8,569**	28	**63,064**	59,096	**71,633**	59,124
Depreciation and amortisation					**59,010**	60,828	**59,010**	60,828
Finance costs					**8,258**	8,063	**8,258**	8,063
Write-down and impairment of assets					**6,849**	2,115	**6,849**	2,115
Other					**3,651**	2,840	**3,651**	2,840
Total operating expenses	**0**	0	**9,130**	94	**227,365**	222,251	**236,495**	222,345

Notes:
The net costs include intra - government costs that would be eliminated in calculating the actual Budget outcome.

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

		Notes	Consolidated 2009 $'000	Consolidated 2008 $'000	Parent 2009 $'000	Parent 2008 $'000
5	**Income**					
5A.	**Revenues from Government**					
	CAC Act payments from DIISR		**173,115**	153,314	**173,115**	153,314
5B.	**Goods and services**					
	Radioisotope sales		**21,367**	20,673	**21,367**	20,673
	Services and contract research		**15,905**	11,724	**15,153**	11,163
	Silicon irradiation		**1,271**	387	**1,271**	387
	CSIRO site support		**1,025**	1,169	**1,025**	1,169
	Training courses		**152**	163	**156**	163
	Land management		**3,044**	3,923	**3,129**	3,923
	Australian Synchrotron Research Project		**1,030**	1,107	**1,030**	1,107
	AINSE interactions		**873**	1,346	**873**	1,346
	Total sales of goods and services		**44,667**	40,492	**44,004**	39,931
5C.	**Grants**		**1,916**	3,840	**1,906**	3,645
5D.	**Interest**		**8,449**	8,861	**9,167**	8,867
5E.	**Net gain from sale of assets**					
	Infrastructure, plant and equipment:					
	Revenue from sale of assets		**1,248**	977	**1,248**	977
	Net book value of assets sold		**(894)**	(657)	**(894)**	(657)
	Net gain from disposal of infrastructure, plant and equipment		**354**	320	**354**	320
5F.	**Net foreign exchange gains - non speculative**		**463**	10	**434**	10
5G.	**Other income:**					
	Other		**188**	110	**188**	110
	Total other income		**188**	110	**188**	110
	Total operating revenue from independent sources		**56,037**	53,633	**56,053**	52,883
	Total revenues from ordinary activities		**229,152**	206,947	**229,168**	206,197
5H.	**Sales of goods and services**					
	Goods		**21,367**	20,673	**21,367**	20,673
	Services		**23,300**	19,819	**22,637**	19,258
	Total sales of goods and services	5B	**44,667**	40,492	**44,004**	39,931
	Provision of goods to:					
	External entities		**21,367**	20,673	**21,367**	20,673
	Total sales of goods		**21,367**	20,673	**21,367**	20,673
	Rendering of services to:					
	Related entities		**1,158**	-	**1,158**	2,522
	External entities		**22,142**	19,819	**21,479**	16,736
	Total rendering of services		**23,300**	19,819	**22,637**	19,258

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

			FINANCIAL YEAR			
			Consolidated		Parent	
			2009	2008	2009	2008
6	**Expenses**	**Notes**	**$'000**	$'000	**$'000**	$'000
	The breakdown of operating expenses is:					
6A.	**Employee expenses:**					
	Salaries		**64,787**	65,025	**65,507**	64,866
	Superannuation		**10,845**	11,749	**10,845**	11,751
	Annual leave		**5,888**	6,421	**5,888**	6,421
	Long service leave		**2,105**	2,783	**2,105**	2,783
	Separation and redundancy		**2,749**	3,554	**2,749**	3,554
	Total employee expenses		**86,374**	89,532	**87,094**	89,375
6B.	**Supplier expenses:**					
	Goods from related entities		**-**	**-**	**-**	**-**
	Goods from external entities		**29,755**	19,323	**29,694**	19,353
	Services from related entities		**16,882**	12,342	**16,882**	13,266
	Workers compensation premiums		**1,027**	431	**1,017**	431
	Services from external entities		**26,671**	30,003	**23,725**	25,952
	Operating lease rentals		**311**	122	**315**	122
	Total supplier expenses		**74,646**	62,221	**71,633**	59,124
6C.	**Depreciation and amortisation**					
	Depreciation of property, plant and equipment (a)	8B	**58,009**	60,242	**57,934**	60,237
	Amortisation of intangible assets - licence	8D	**3**	3	**3**	3
	Amortisation of intangible assets - software	8D	**1,073**	588	**1,073**	588
	Total depreciation and amortisation		**59,085**	60,833	**59,010**	60,828
6D.	**Writedown and impairment of assets**					
	Financial assets:					
	Provision for doubtful debts (no longer required)		**2**	(48)	**2**	(48)
	Receivables for goods and services		**-**	40	**-**	40
	Foreign exchange (gain)/ loss - non speculative					
	-realised		**528**	33	**508**	31
	-unrealised		**(121)**	29	**(121)**	29
	Writedown of investment in subsidiaries		**-**	-	**5,786**	-
	Non financial assets:					
	Materials - Write off obsolete stock		**-**	1,543	**-**	1,543
	Loss from sale of assets		**339**	143	**339**	143
	Fixed Assets Revaluation Writedown/Impairment		**106**		**-**	-
	Nuclear material stock devaluation		**335**	377	**335**	377
	Total writedown of assets		**1,189**	2,117	**6,849**	2,115
6E.	**Grants**		**3,651**	2,840	**3,651**	2,840
6F.	**Finance costs**					
	Unwinding of discount on Decommissioning Costs		**8,072**	7,887	**8,072**	7,887
	Interest		**186**	176	**186**	176
			8,258	8,063	**8,258**	8,063
	Total operating expenses		**233,203**	**225,606**	**236,495**	**222,345**

(a)	Depreciation of property, plant and equipment:				
	The aggregate amounts of depreciation expensed during the reporting period for each depreciable class of property, plant and equipment are as follows:				
	Buildings on freehold land	**6,899**	6,928	**6,899**	6,928
	Plant and equipment	**21,012**	23,587	**20,937**	23,582
	Infrastructure	**2,488**	2,454	**2,488**	2,454
	National and major facilities	**27,610**	27,273	**27,610**	27,273
	Total allocated	**58,009**	60,242	**57,934**	60,237

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

			FINANCIAL YEAR			
			Consolidated		Parent	
			2009	2008	2009	2008
			$'000	$'000	$'000	$'000
7	**Financial assets**					
7A.	**Cash**					
	Cash at bank for operating needs		**3,752**	9,302	**3,265**	3,852
	Total cash		**3,752**	9,302	**3,265**	3,852
7B.	**Receivables**					
	Goods and services	(a)	**6,193**	5,554	**6,338**	5,768
	Less provision for doubtful debts	(b)	**36**	34	**36**	34
			6,157	5,520	**6,302**	5,734
	Interest accrued		**1,364**	1,413	**1,985**	1,413
	Other		**1,095**	2,150	**1,115**	2,155
	Loans to related parties		**-**	-	**5,977**	4,568
	GST receivable		**941**	761	**797**	711
	Total receivables (net)		**9,557**	9,844	**16,176**	14,581
(a)	Goods and services (trade debtors)					
	Age analysis of trade debtors					
	Current		**3,698**	3,597	**3,781**	3,844
	Overdue:					
	Less than 30 days		**1,678**	1,304	**1,749**	1,304
	30 to 60 days; and		**623**	211	**617**	211
	60 to 90 days		**46**	90	**43**	57
	More than 90 days		**148**	352	**148**	352
			6,193	5,554	**6,338**	5,768

(b) The provision for doubtful debts represents debts aged more than 90 days (2008: aged more than 90 days).

7C.	**Investments**			
	Bank bills	**88,000**	83,000	**88,000**	83,000
	Treasury Bonds	**39,979**	39,880	**39,979**	39,880
	Term deposit	**9,682**	-	**9,000**	-
	Investment in Australian Synchrotron	**5,000**	5,000	**5,000**	5,000
	Investment in PETNET Australia Pty Limited	**-**	-	**5,000**	5,000
	Total investments	**142,661**	127,880	**146,979**	132,880

7D. Investment in subsidiaries

The details of the subsidiaries of ANSTO are:

Name	Place of Incorporation	% Owned	Investment		Loans/Convertible Notes	
			2009	2008	2009	2008
			$	$	$	$
CeramiSphere Pty Limited	Australia	100%	**1**	1	**-**	2,650,000
Australian Membrane Technologies Pty. Limited	Australia	100%	**1**	1	**-**	700,000
PETNET Australia Pty Limited	Australia	100%	**5,000,000**	5,000,000	**5,000,000**	303,178
ANSTO Inc.	Delaware U.S.A.	100%	**-**	-	**976,812**	914,593
			5,000,002	5,000,002	**5,976,812**	4,567,771

ANSTO Inc. was incorporated in Delaware, USA on 27 October 1999. At 30 June 2009: US$100 (2008: US$100) of capital has been invested in this wholly owned subsidiary. This investment has been written off in prior periods.

In November 2004, the Board decided to utilise ANSTO Inc to promote the commercialisation of ANSTO Technology in the USA.

The loan to ANSTO Inc. is denominated in US dollars, $US770,118 (2008: $US770,118).

The Investment (including loans) in Australian Membrane Technology Pty. Ltd and CeramiSphere Pty. Ltd was considered impaired and hence fully provided as at 30 June 2009.

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

		Notes	FINANCIAL YEAR Consolidated 2009 $'000	Consolidated 2008 $'000	Parent 2009 $'000	Parent 2008 $'000
8	**Non-financial assets**					
8A.	**Land and buildings**					
	Land - at independent valuation - 30 June 2007 (fair value)	(a), (b)	**78,700**	78,700	**78,700**	78,700
			78,700	78,700	**78,700**	78,700
	Buildings - at cost		**21,054**	24,634	**21,054**	24,634
	Less accumulated depreciation		**14,961**	7,442	**14,961**	7,442
			6,093	17,192	**6,093**	17,192
	Buildings - at independent valuation - 30 June 2007 (fair value)	(a), (b)	**83,316**	83,316	**83,316**	83,316
	Less accumulated depreciation	(a), (b)	**10,464**	5,600	**10,464**	5,600
			72,852	77,716	**72,852**	77,716
	Total buildings		**78,945**	94,908	**78,945**	94,908
	Total land and buildings		**157,645**	173,608	**157,645**	173,608
8B.	**Infrastructure, plant, equipment and major facilities**					
	8B(i). Plant and equipment					
	Plant and equipment - at cost		**101,789**	115,239	**101,328**	114,777
	Less accumulated depreciation		**52,111**	47,361	**52,040**	47,351
			49,678	67,878	**49,288**	67,426
	Plant and equipment - at independent valuation - 30 June 2007 (fair value)	(a), (b)	**62,697**	66,681	**62,697**	66,681
	Less accumulated depreciation	(a), (b)	**26,053**	14,583	**26,053**	14,583
			36,644	52,098	**36,644**	52,098
	Plant and equipment - at Directors valuation - 30 June 2007 (fair value)	(c)	**1,029**	1,029	**1,029**	1,029
	Less accumulated depreciation		**428**	225	**428**	225
			601	804	**601**	804
	Plant and equipment under construction		**41,539**	23,565	**32,034**	23,561
	Total plant and equipment		**128,462**	144,345	**118,567**	143,889
	8B(ii). Infrastructure					
	Electrical/site services facilities - at cost		**1,411**	629	**1,411**	629
	Less accumulated depreciation		**155**	22	**155**	22
			1,256	607	**1,256**	607
	Electrical/site services facilities at independent valuation - 30 June 2007 (fair value)	(a), (b)	**28,014**	28,014	**28,014**	28,014
	Less accumulated depreciation	(a), (b)	**4,783**	2,432	**4,783**	2,432
			23,231	25,582	**23,231**	25,582
	Total infrastructure		**24,487**	26,189	**24,487**	26,189

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

Non-financial assets (continued)

		FINANCIAL YEAR			
		Consolidated		Parent	
	Notes	**2009 $'000**	2008 $'000	**2009 $'000**	**2008** $'000
8B(iii). Major national and major research facilities					
Major national research facilities - at cost		**830**	249	**830**	249
Less accumulated depreciation		**60**	2	**60**	2
		770	247	**770**	247
Major national research facilities at independent valuation - 30 June 2007 (fair value)	(a), (b)	**5,645**	5,645	**5,645**	5,645
Less accumulated depreciation	(a), (b)	**2,699**	1,368	**2,699**	1,368
		2,946	4,277	**2,946**	4,277
Major research facilities at cost		**73**	50	**73**	50
Less accumulated depreciation		**16**	6	**16**	6
		57	44	**57**	44
Major research facilities at independent valuation - 30 June 2007 (fair value)	(a), (b)	**6,257**	6,257	**6,257**	6,257
Less accumulated depreciation	(a), (b)	**1,388**	696	**1,388**	696
		4,869	5,561	**4,869**	5,561
OPAL nuclear research reactor at cost		**594**	479,040	**594**	479,040
Less accumulated depreciation		**7**	27,161	**7**	27,161
		587	451,879	**587**	451,879
OPAL nuclear research reactor at independent valuation - 30 June 2009 (fair value)	(d)	**450,121**	-	**450,121**	-
Less accumulated depreciation		**-**	-	**-**	-
		450,121	-	**450,121**	-
Total major national and major research facilities		**459,350**	462,008	**459,350**	462,008
Total infrastructure, plant, equipment and major facilities		**612,299**	632,542	**602,404**	632,086
Total land, buildings, infrastructure, plant, equipment and major facilities		**769,944**	806,150	**760,049**	805,694

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

Movement summary 2008-2009 for all consolidated assets irrespective of valuation basis (excluding intangibles)

	Land	Buildings	Total Land and Buildings	Infrastructure, plant, equipment national and major facilities	Total
	$'000	$'000	$'000	$'000	$'000
Gross value as at 1 July 2008	**78,700**	**107,951**	**186,651**	**726,401**	**913,052**
Additions - new assets	-	695	695	41,611	42,306
Net revaluation increment	-	-	-	48,332	48,332
Decommissioning Cost	-	-	-	(65,919)	(65,919)
Transfers/reclassifications	-	(4,276)	(4,276)	3,004	(1,272)
Disposals	-	-	-	(2,320)	(2,320)
Gross value as at 30 June 2009	**78,700**	**104,370**	**183,070**	**751,108**	**934,178**
Accumulated depreciation/ amortisation 1 July 2008	-	13,043	13,043	93,859	106,902
Depreciation/amortisation	-	6,899	6,899	51,110	58,009
Transfers/reclassifications		5,483	5,483	(5,495)	(12)
Adjustment for disposals	-	-	-	(664)	(664)
Accumulated depreciation/ amortisation 30 June 2009	-	25,425	25,425	138,810	164,235
Net book value as at 30 June 2009	**78,700**	**78,945**	**157,645**	**612,299**	**769,944**

Movement summary 2007-2008 for all consolidated assets irrespective of valuation basis (excluding intangibles)

	Land	Buildings	Total Land and Buildings	Infrastructure, plant, equipment national and major facilities	Total
	$'000	$'000	$'000	$'000	$'000
Gross value as at 1 July 2007	78,700	105,403	184,103	745,062	929,165
Additions - new assets	-	1,858	1,858	31,690	33,548
Recoverable Amount write downs					-
Net revaluation decrement	-	-	-	(517)	(517)
Transfers/reclassifications	-	690	690	(48,680)	(47,990)
Disposals	-	-	-	(1,154)	(1,154)
Gross value as at 30 June 2008	78,700	107,951	186,651	726,401	913,052
Accumulated depreciation/ amortisation 1 July 2007	-	5,991	5,991	40,911	46,902
Depreciation/amortisation	-	7,052	7,052	53,190	60,242
Recoverable Amount write downs			-		-
Net revaluation decrement			-		-
Adjustment for disposals	-	-	-	(242)	(242)
Accumulated depreciation/ amortisation 30 June 2008	-	13,043	13,043	93,859	106,902
Net book value as at 30 June 2008	78,700	94,908	173,608	632,542	806,150

Note:
(a) In 2006-2007, an independent valuation of land, buildings, plant & equipment and infrastructure was performed by Mr. Frank Andreatta and Mr. Simon B O'Leary (registered valuer Nos. 3775 and 1128 respectively) of the Australian Valuation Office. The valuation performed was for all assets owned at February 2007.

(b) In accordance with the requirements of Schedule 1 of the Commonwealth Authorities and Companies Act 1997 (Financial Statements 2008-2009) Orders, all revalued assets are shown on a gross basis: asset values are at fair value and accumulated depreciation has been written back. The resulting adjustment has been transferred directly to the asset revaluation reserve and/or Income Statement if the reserve is insufficient.

(c) The Board resolved to value these assets as of 30 June 2007 at Directors Valuation.

(d) OPAL was commissioned in April 2007 and has been revalued as at 30 June 2009 by Mr. Simon B O'Leary (registered valuer No. 1128) of the Australian Valuation Office using asset lists as at 31 May 2009.

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

	FINANCIAL YEAR			
	Consolidated		Parent	
	2009	2008	**2009**	2008
	$'000	$'000	**$'000**	$'000
8C. Inventories				
Raw materials and stores-not held for resale				
Stores - at cost	**1,855**	1,693	**1,855**	1,693
Cobalt-60 sources - at net realisable value	**279**	318	**279**	318
Reactor fuel and heavy water - at average purchase price	**5,765**	4,963	**5,765**	4,963
Nuclear materials - at net realisable value	**221**	233	**221**	233
Provision for stock diminution	**(86)**	(342)	**(86)**	(342)
	8,034	6,865	**8,034**	6,865
Work in progress - at cost	**477**	639	**477**	639
Finished goods - at cost	**200**	197	**200**	197
Total inventories	**8,711**	7,701	**8,711**	7,701
8D. Intangibles				
Licences at deemed cost	**1,009**	1,009	**1,009**	1,009
Less accumulated amortisation	**1,009**	1,007	**1,009**	1,007
	-	2	**-**	2
Software at cost	**12,430**	9,671	**12,430**	9,671
Less accumulated amortisation	**9,232**	8,507	**9,232**	8,507
	3,198	1,164	**3,198**	1,164
Software at deemed cost	**2,348**	2,348	**2,348**	2,348
Less accumulated amortisation	**2,348**	2,001	**2,348**	2,001
	-	347	**-**	347
Software under construction	**2,043**	-	**2,043**	-
Total intangibles	**5,241**	1,513	**5,241**	1,513

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

8D. Intangibles (continued)

Movement summary 2008-2009 for all consolidated intangibles irrespective of valuation basis

	Licenses $'000	Software $'000	Total $'000
Gross value as at 1 July 2008	**1,009**	**12,018**	**13,027**
Additions - new assets		**3,544**	**3,544**
Transfer/Reclassification		**1,272**	**1,272**
Gross value as at 30 June 2009	**1,009**	**16,834**	**17,843**
Accumulated depreciation/ amortisation 1 July 2008	**1,006**	**10,508**	**11,514**
Depreciation/amortisation	**3**	**1,073**	**1,076**
Transfer/Reclassification		**12**	**12**
Accumulated depreciation/ amortisation 30 June 2009	**1,009**	**11,593**	**12,602**
Net book value as at 30 June 2009	**-**	**5,241**	**5,241**

Movement summary 2007-2008 for all consolidated intangibles irrespective of valuation basis

	Licenses $'000	Software $'000	Total $'000
Gross value as at 1 July 2007	1,009	10,690	11,699
Additions - new assets	-	1,328	1,328
Gross value as at 30 June 2008	1,009	12,018	13,027
Accumulated depreciation/ amortisation 1 July 2007	1,003	9,920	10,923
Depreciation/amortisation	3	588	591
Accumulated depreciation/ amortisation 30 June 2008	1,006	10,508	11,514
Net book value as at 30 June 2008	3	1,510	1,513

	FINANCIAL YEAR			
	Consolidated		Parent	
	2009 $'000	2008 $'000	**2009 $'000**	2008 $'000
8E. Other				
Deferred tax asset	**318**	178	**-**	-
Prepayments	**4,086**	1,731	**3,634**	1,328
	4,404	1,909	**3,634**	1,328
Total non-financial assets	**788,300**	817,273	**777,635**	816,236

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

		FINANCIAL YEAR			
		Consolidated		Parent	
9	**Liabilities**	**2009**	2008	**2009**	2008
		$'000	$'000	**$'000**	$'000
9A.	**Interest bearing liabilities**				
	Other - (a)	**3,308**	3,116	**3,308**	3,116
	Total interest bearing liabilities	**3,308**	3,116	**3,308**	3,116
	Provision and payables				
9B.	**Employees**				
	Accrued salaries and wages	**1,609**	909	**1,603**	909
	Annual leave	**8,666**	9,244	**8,645**	9,244
	Long service leave	**14,547**	15,623	**14,547**	15,623
	Aggregate employee entitlement liability	**24,822**	25,776	**24,795**	25,776
9C	**Decommissioning Cost**				
	Decommissioning Cost	**119,374**	181,757	**119,374**	181,757
		119,374	181,757	**119,374**	181,757
9D	**Other**				
	Waste management cost (b)	**1,605**	1,605	**1,605**	1,605
	Other claims (c)	**402**	2,966	**402**	2,966
		2,007	4,571	**2,007**	4,571
9E	**Suppliers**				
	Trade creditors	**8,263**	9,134	**8,150**	8,933
		8,263	9,134	**8,150**	8,933
9F	**Grants**				
	Non-profit entities	**575**	128	**575**	128
		575	128	**575**	128
9G	**Other**				
	Revenue received in advance	**1,171**	1,194	**1,171**	1,194
		1,171	1,194	**1,171**	1,194
	Total provisions and payables	**156,212**	222,560	**156,072**	222,359
	Total liabilities	**159,520**	225,676	**159,380**	225,475

Notes:
(a) Relates to prepaid revenue under a lease of property.

(b) A specific appropriation to cover costs associated with the movement of low level waste to a repository yet to be established.

(c) Provision includes cost to cover for redundancy due to restructuring and incentive payment.

9H Provision movement reconciliation

	Provision for Decommissioning Costs	Provision for Waste Management Costs	Provision for Other Claims
	$'000	$'000	$'000
Carrying amount 1 July 2008	**181,757**	**1,605**	**2,966**
Amounts used	**(4,536)**	-	**(2,564)**
Change in assumptions	**(65,919)**	-	**-**
Unwinding discount	**8,072**	-	-
Closing balance 30 June 2009	**119,374**	**1,605**	**402**

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

	FINANCIAL YEAR			
	Consolidated		Parent	
	2009	2008	**2009**	2008
	$'000	$'000	**$'000**	$'000
10 Equity				
Contributed equity				
Replacement research reactor equity injections				
Balance 1 July	**385,836**	385,836	**385,836**	385,836
Balance 30 June	**385,836**	385,836	**385,836**	385,836
Other equity injections				
Balance 1 July	**60,420**	28,020	**60,420**	28,020
Equity injections from Government - Other	**1,600**	32,400	**1,600**	32,400
Balance 30 June	**62,020**	60,420	**62,020**	60,420
Total contributed equity	**447,856**	446,256	**447,856**	446,256
Reserves, including movements				
Asset revaluation reserve				
Balance 1 July	**229,248**	229,765	**229,239**	229,765
Revaluation adjustment	**48,463**	(517)	**48,328**	(526)
Balance 30 June	**277,711**	229,248	**277,567**	229,239
Fuel elements reserve				
Balance 1 July	-	7,700	**-**	7,700
Transferred to retained surpluses	**-**	(7,700)	**-**	(7,700)
Balance 30 June - (a)	**-**	**-**	**-**	**-**
Instrumentation reserve				
Balance 1 July	-	6,200	**-**	6,200
Transferred to accumulated surpluses	**-**	(6,200)	**-**	(6,200)
Balance 30 June - (b)	-	**-**	**-**	**-**
OPAL depreciation reserve				
Balance 1 July	**35,258**	8,000	**35,258**	8,000
Transferred (to)/from retained surpluses (c)	**(26,197)**	27,258	**(26,197)**	27,258
Balance 30 June	**9,061**	35,258	**9,061**	35,258
Reactor licensing reserve				
Balance 1 July	**1,500**	1,500	**1,500**	1,500
Transferred to retained surpluses - (d)	**(1,500)**	-	**(1,500)**	-
Balance 30 June	**-**	1,500	**-**	1,500
Regional security of radioactive reserve				
Balance 1 July	**757**	1,600	**757**	1,600
Transferred (to) retained surpluses (e)	**(128)**	(843)	**(128)**	(843)
Balance 30 June	**629**	757	**629**	757
Nuclear & radiological security reserve				
Balance 1 July	**360**	260	**360**	260
Transferred from retained surpluses (f)	**179**	100	**179**	100
Balance 30 June	**539**	360	**539**	360

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

		FINANCIAL YEAR			
		Consolidated		Parent	
		2009	2008	**2009**	2008
		$'000	$'000	**$'000**	$'000
Low dose nuclear waste repository reserve					
Balance 1 July		**3,032**	-	**3,032**	-
Transferred from retained surpluses (g)		**-**	3,032	**-**	3,032
Balance 30 June		**3,032**	3,032	**3,032**	3,032
Foreign currency reserve					
Balance 1 July		**(22)**	-	**-**	-
Transferred from retained surpluses		**19**	(22)	**-**	-
Balance 30 June		**(3)**	(22)	**-**	-
Other reserve					
Balance 1 July		**-**	-	**-**	-
Transferred from retained surpluses		**150**	-	**-**	-
Balance 30 June		**150**	-	**-**	-
Total reserves		**291,119**	270,133	**290,828**	270,146
Retained surpluses					
Retained surpluses 1 July		**22,234**	56,465	**25,672**	57,467
Transfer from fuel element reserve	(a)	**-**	7,700	**-**	7,700
Transfer from instrumentation reserve	(b)	**-**	6,200	**-**	6,200
Transfer (to)/from OPAL depreciation reserve	(c)	**26,197**	(27,258)	**26,197**	(27,258)
Transfer from reactor licensing reserve	(d)	**1,500**	-	**1,500**	-
Transfer from regional security of radioactive reserve	(e)	**128**	843	**128**	843
Transfer to nuclear & radiological security reserve	(f)	**(179)**	(100)	**(179)**	(100)
Transfer to low dose nuclear waste repository reserve	(g)	**-**	(3,032)	**-**	(3,032)
Transfer to other reserve		**(150)**	-	**-**	-
(Deficit)/Surplus		**(3,955)**	(18,584)	**(7,327)**	(16,148)
Retained surpluses 30 June		**45,775**	22,234	**45,991**	25,672
Total equity		**784,750**	738,623	**784,675**	742,074

(a) Fuel elements reserve
This reserve was established to fund the purchase of core fuel and development cost for the first few years of the replacement research reactor operation. This reserve has now been fully utilised.

(b) Instrumentation reserve
In addition to the 1997 Government decision to fund the construction of a replacement research reactor at Lucas Heights, ANSTO has identified a planned future capital investment for the development of instrumentation associated with the replacement research reactor. This reserve has now been fully utilised.

(c) OPAL depreciation reserve
This reserve represents unused funding for OPAL depreciation. This was due to a delay in final commissioning of OPAL.

(d) Reactor licensing reserve
This reserve is to meet future licensing costs for decommissioning the HIFAR reactor and MOATA. This reserve has now been fully utilised.

(e) Regional security of radioactive materials reserve
This represents unused funding from prior years. This is due to delays in participation by some regional countries.

(f) Nuclear and radiological security reserve
This reserve relates to funding which will be utilised on a new project which is planned to run through to 2009-10.

(g) Low dose nuclear waste repository reserve
This reserve relates to funding for low level waste facility at ANSTO for its own use and use by other Commonwealth agencies.

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

11 Cash flow reconciliation

	FINANCIAL YEAR			
	Consolidated		Parent	
	2009 $'000	2008 $'000	**2009 $'000**	2008 $'000
Reconciliation of Operating Loss to Net Cash from Operating Activities:				
Operating surplus / (loss)	**(4,051)**	(18,659)	**(7,327)**	(16,148)
Non-cash items				
Depreciation/amortisation	**59,085**	60,833	**59,010**	60,828
Net writedown of Investment	**-**	-	**5,786**	-
Net gain from sale of assets	**(354)**	(320)	**(354)**	(320)
Write off obsolete stock		1,543		1,543
Nuclear materials (revaluation) devaluation	**335**	(377)	**335**	(377)
Unrealised foreign exchange variances	**(121)**	-	**(121)**	-
Net loss from sale of assets	**458**	143	**339**	143
Unwinding of Discount - Decommissioning Costs	**8,072**	7,888	**8,072**	7,888
Changes in assets and liabilities				
(Increase)/Decrease in receivables	**(637)**	2,061	**(568)**	1,814
(Increase)/Decrease in other receivables	**904**	(282)	**(539)**	(54)
(Increase) /Decrease in GST receivables	**(180)**	(53)	**(86)**	(8)
(Increase) in accrued interest	**(937)**	(1,355)	**64**	(1,355)
(Increase)/Decrease in prepayments	**(2,355)**	294	**(2,306)**	697
(Increase) in inventories	**(675)**	(2,859)	**(675)**	(2,859)
Increase/(Decrease) in creditors	**(871)**	1,308	**(783)**	1,949
Increase in employee entitlements	**(954)**	1,123	**(981)**	1,123
Increase/(Decrease) in revenue received in advance	**424**	(1,187)	**424**	(1,187)
(Decrease) in non employee provisions	**(7,100)**	(46)	**(7,100)**	(46)
Increase in interest bearing liabilities	**192**	178	**192**	178
Net cash from operating activities	**51,235**	50,233	**53,382**	53,809

12 Government funding

Revenue from Government	**173,115**	151,668	**173,115**	151,668
Government Equity injection	**1,600**	32,400	**1,600**	32,400
	174,715	184,068	**174,715**	184,068

In 2009 ANSTO was not directly appropriated as it is a CAC Act body. Appropriations are made to the Department of Innovation, Industry, Science and Research (DIISR) which are then paid to ANSTO.

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

13 Board membership

The members of the Board during the financial year and to the date of the report on the statements were:

Member	Appointed	Term Concluded	Term Concludes
T Pretty (a)	26 September 2007		25 September 2011
R Cameron	17 May 2008	29 February 2009	
Z Switkowski	1 January 2006		31 December 2010
W Scales	1 July 2007		30 June 2010
P Greenfield	25 July 2007		24 July 2010
A Scott	26 September 2007		25 September 2011
D Copolov	1 May 2008		30 April 2012
J Hearn	1 May 2008		30 April 2012
E Smyth	12 December 2008		11 December 2012
A Paterson	1 March 2009		28 February 2014
C McLoughin	13 March 2009		12 March 2013

(a) T. Pretty resigned from the Board effective 16 November 2008.

For the 2008-2009 financial year the aggregate remuneration paid to members of the Board is disclosed in Note 14.

14 Remuneration of members of the Board

	FINANCIAL YEAR			
	Consolidated		Parent	
	2009 $	2008 $	**2009 $**	2008 $
Members' remuneration is determined by the Remuneration Tribunal and payment is made in accordance with Section 12 of the ANSTO Act 1987 (as amended).				
Included in operating expenses (Note 6) are:				
Aggregate amounts of superannuation payments in connection with the members of the Board	**62,791**	30,173	**62,791**	30,173
Other remuneration received, or due and receivable by members of the Board including the Chief Executive Officer.	**683,033**	612,373	**683,033**	612,373
	745,824	642,546	**745,824**	642,546
The number of members included in these figures is shown below in each relevant remuneration band:				
Remuneration between	**Number**	Number	**Number**	Number
$Nil and $14,999	**2**	2	**2**	2
$15,000 and $29,999	**1**	5	**1**	5
$30,000 and $44,999	**5**	3	**5**	3
$45,000 and $59,999	**1**	1	**1**	1
$105,000 and $119,999	**1**	-	**1**	-
$345,000 and $359,999 (a)	**1**	-	**1**	-
$375,000 and $389,999	**-**	1	**-**	1
	11	12	**11**	12

(a) Includes incentives payment

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

15 Remuneration of executives

	FINANCIAL YEAR			
	Consolidated		Parent	
	2009 $	2008 $	2009 $	2008 $
Executive remuneration is determined by ANSTO, with the senior executive salaries approved by the Chief Executive Office (CEO). Included in operating expenses (Note 6) is total remuneration received or due and receivable, by executives (excluding the CEO who is included in Note 14) who earn $130,000 or more in connection with the management of ANSTO.	**3,773,202**	3,637,274	**3,351,963**	3,144,570

The number of executives included in these figures is shown below in each relevant remuneration band:

Remuneration between		Number	Number	Number	Number
$130,000 and $144,999	(a)	**2**	-	**1**	-
$145,000 and $159,999		**1**	1	**1**	1
$160,000 and $174,999	(b)	**3**	2	**3**	2
$175,000 and $189,999		**-**	2	**-**	2
$190,000 and $204,999		**3**	3	**3**	3
$205,000 and $219,999		**3**	2	**3**	1
$220,000 and $234,999		**-**	1	**-**	1
$235,000 and $249,999		**1**	3	**1**	3
$250,000 and $264,999		**1**	1	**1**	1
$265,000 and $279,999		**3**	1	**2**	1
$280,000 and $294,999		**1**	1	**1**	-
		18	17	**16**	15

(a) Includes incentive payment
(b) Includes termination payment

16 OPAL Nuclear Research Reactor

The OPAL nuclear research reactor operated for approximately 70% of the calendar days in the financial year. This was equivalent to 84% of the days planned for operation during the year to 30 June 2009. Contract Performance Demonstration Tests were successfully completed during the year. Analysis of the results from those tests indicated that the OPAL's performance complies with the performance levels specified in the Reactor Contract for both neutron beams and irradiation facilities.

Utilisation of the reactor steadily increased throughout the year, with the main outputs being production of radioisotopes for radiopharmaceuticals, irradiation of silicon ingots for industrial customers, and irradiation of materials for research and commercial customers.

ANSTO continues to work with INVAP on the resolution of a small number of defects, which have been prioritised. Progress on achieving acceptable disposition of all defects is being monitored and has been acceptable to date.

An independent valuation, by AVO of OPAL and Neutron Beam Instruments was undertaken as at 30 June 2009. This was in accordance with the FMO's and Australian Accounting Standards. The outcome was a fair value of $450 million resulting in an increase of $48 million.

17 Insurances

Insurance risks, including professional indemnity, general liability, industrial special risk for property used substantially for commercial purposes, directors and officers, and travel, are placed through Comcover, the Government's insurable risk managed fund.

Workers compensation is insured through Comcare Australia and by virtue of statute under the *Safety Rehabilitation and Compensation Act 1988.*

A Deed of Indemnity between the Commonwealth Government and ANSTO, under which the government has formally agreed to indemnify ANSTO and ANSTO Officers from any loss or liability arising from claims caused by ionising radiation, remains in place.

18 Remuneration of auditors

	FINANCIAL YEAR			
	Consolidated		Parent	
	2009 $'000	2008 $'000	2009 $'000	2008 $'000
Remuneration to the Auditor-General for auditing the financial statements for the reporting period	**158,500**	145,000	**140,000**	130,000

No other services were provided by the Auditor-General during the reporting period.

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

19 Related party disclosures

Several ANSTO Board Members were associated with entities with which ANSTO had commercial transactions during the year as part of their role in hospitals or universities. All such transactions were in accordance with ANSTO's normal commercial terms conditions. None of those transactions led to any conflict of interest.

20 Trust money

ANSTO receives monies from trade creditors as security deposits for contracts to be performed. These monies are held in a Trust Account and refunded to the respective trade creditors on satisfactory completion of the contract.

	Consolidated		Parent	
	2009 $'000	2008 $'000	**2009 $'000**	2008 $'000
Balance 1 July	**20**	19	**20**	19
Add: receipts	**-**	-	**-**	-
Add: interest received	**-**	1	**-**	1
Balance 30 June	**20**	20	**20**	20

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

21 Financial Instruments (cont.)

(a) Fair value of financial instruments

Financial Instruments	Notes	Consolidated				Parent			
		Carrying Amount 2009 $'000	Fair Value 2009 $'000	Carrying Amount 2008 $'000	Fair Value 2008 $'000	Carrying Amount 2009 $'000	Fair Value 2009 $'000	Carrying Amount 2008 $'000	Fair Value 2008 $'000
Financial assets									
Cash at bank	7A	**3,752**	**3,752**	9,302	9,302	**3,265**	**3,265**	3,852	3,852
Investment held to maturity	7C	**137,661**	**137,661**	122,880	122,880	**136,979**	**136,979**	122,880	122,880
Investment at fair value through Profit and Loss	7C	**5,000**	**5,000**	5,000	5,000	**10,000**	**10,000**	10,000	10,000
Receivables for goods and services	7B	**7,098**	**7,098**	6,281	6,281	**7,099**	**7,099**	6,445	6,445
Loans	7B	**-**	**-**	-	-	**5,977**	**5,977**	4,568	4,788
Interest accrued	7B	**1,364**	**1,364**	1,413	1,413	**1,985**	**1,985**	1,413	1,413
Other	7B	**1,095**	**1,095**	2,150	2,150	**1,115**	**1,115**	2,155	1,935
Total financial assets (recognised)		**155,970**	**155,970**	147,026	147,026	**166,420**	**166,420**	151,313	151,313
Total financial liabilities									
Trade creditors	9E	**8,263**	**8,263**	9,134	9,134	**8,150**	**8,150**	8,933	8,933
Grant received in advance	9F	**575**	**575**	128	128	**575**	**575**	128	128
Interest bearing liabilities	9A	**3,308**	**3,308**	3,116	3,116	**3,308**	**3,308**	3,116	3,116
Other	9G	**1,171**	**1,171**	1,194	1,194	**1,171**	**1,171**	1,194	1,194
Total financial liabilities (recognised)		**13,317**	**13,317**	13,572	13,572	**13,204**	**13,204**	13,371	13,371

(b) Net income from financial assets

Financial Instruments	Notes	Consolidated		Parent	
		2009 $'000	2008 $'000	2009 $'000	2008 $'000
Financial assets					
Cash at bank	7A	**636**	937	**367**	937
Investment held to maturity	7C	**7,813**	7,924	**7,814**	7,664
Loans	7B	**-**	-	**986**	266
Net income from financial assets		**8,449**	8,861	**9,167**	8,867

(c) Net expenses from financial liabilities

Financial liabilities					
Interest bearing liabilities	9A	**186**	176	**186**	176
Net expenses from financial liabilities		**186**	176	**186**	176

Financial assets

The net fair values of cash, deposits on call and non-interest-bearing monetary financial assets are in accord with their carrying amounts.

Loans receivable are carried at cost, which is above their net fair value, because it is intended to hold them to maturity.

Financial liabilities

The net fair values for trade creditors and revenue received in advance, all of which are short-term in nature, are in accord with their carrying amounts.

(d) Credit risk exposures

ANSTO is exposed to minimal credit risk as the majority of loans and receivables are cash or amounts owed by the Australian Tax Office in the form of a Goods and Services Tax refund.

The maximum exposure to credit risk is the risk that arises from potential default of a debtor. This is equal to the total amount of trade and other receivables as per note 7B. ANSTO has assessed the risk of the default on payment and has provided for doubtful debts account as per note 7B(b).

ANSTO manages its credit risk by undertaking background and credit checks prior to allowing a debtor relationship. In addition, the Organisation has policies and procedures that guide employees to apply debt recovery techniques. The Organisation holds no collateral to mitigate against credit risk.

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

21 Financial Instruments (cont.)

(e) Liquidity risk

ANSTO financial liabilities are payables, finance leases and other interest bearing liabilities. The exposure to liquidity risk is based on the notion that the Organisation will encounter difficulty in meeting its obligations associated with financial liabilities. This is highly unlikely due to Australian Government Appropriation funding and mechanism available to the Organisation and internal policies and procedures put in place to ensure there are appropriate resources to meet its financial obligations.

Consolidated

Financial Instruments	Notes	Consolidated					
2009		**Carrying Amount**	**On Demand**	**1 Year or Less**	**1 to 5 Years**	**More than 5 years**	**Total Contractual Cash Flows**
		$'000	**$'000**	**$'000**	**$'000**	**$'000**	**$'000**
Financial liabilities							
Trade creditors	9E	**8,263**		**8,263**			**8,263**
Grant received in advance	9F	**575**		**575**			**575**
Interest bearing liabilities	9A	**3,308**			**3,308**		**3,308**
Other	9G	**1,171**		**1,171**			**1,171**
Total financial liabilities (recognised)		**13,317**	**-**	**10,009**	**3,308**	**-**	**13,317**
		Consolidated					
2008		Carrying Amount	On Demand	1 Year or Less	1 to 5 Years	More than 5 years	Total Contractual Cash Flows
		$'000	$'000	$'000	$'000	$'000	$'000
Financial liabilities							
Trade creditors	9E	9,134		9,134			9,134
Grant received in advance	9F	128		128			128
Interest bearing liabilities	9A	3,116			3,116		3,116
Other	9G	1,194		1,194			1,194
Total financial liabilities (recognised)		13,572	-	10,456	3,116	-	13,572

Parent

Financial Instruments	Notes	Parent					
2009		**Carrying Amount**	**On Demand**	**1 Year or Less**	**1 to 5 Years**	**More than 5 years**	**Total Contractual Cash Flows**
		$'000	**$'000**	**$'000**	**$'000**	**$'000**	**$'000**
Financial liabilities							
Trade creditors	9E	**8,150**		**8,150**			**8,150**
Grant received in advance	9F	**575**		**575**			**575**
Interest bearing liabilities	9A	**3,308**			**3,308**		**3,308**
Other	9G	**1,171**		**1,171**			**1,171**
Total financial liabilities (recognised)		**13,204**	**-**	**9,896**	**3,308**	**-**	**13,204**
		Parent					
2008		Carrying Amount	On Demand	1 Year or Less	1 to 5 Years	More than 5 years	Total Contractual Cash Flows
		$'000	$'000	$'000	$'000	$'000	$'000
Financial liabilities							
Trade creditors	9E	9,134		9,134			9,134
Grant received in advance	9F	128		128			128
Interest bearing liabilities	9A	3,116			3,116		3,116
Other	9G	1,194		1,194			1,194
Total financial liabilities (recognised)		13,572	-	10,456	3,116	-	13,572

Notes to and forming part of the Financial Statements for the year ended 30 June 2009

21 Financial Instruments (cont.)

(f) Market risk - consolidated

(i) Interest rate risk

This refers to the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The impact only relates to assets and not profit and loss or equity.

Risk variable	Consolidated					
	Change in variable		Effect on		Effect on	
	2009	2008	0.75%	-0.75%	-0.25%	-0.25%
			Profit or loss 2009 $'000	Equity 2009 $'000	Profit or loss 2008 $'000	Equity 2008 $'000
Investment held to maturity	137,661	127,880				
Interest	0.75%	0.25%	1,032	1,032	208	208
Interest	-0.75%	-0.25%	(1,032)	(1,032)	(208)	(208)

Interest rate sensitivity analysis has been calculated on a 'reasonably possible' change basis. A 'reasonably possible' change has been estimated using both statistical and non-statistical analyses. The statistical analysis has been based on the cash rate for the past five years issued by the Reserve Bank of Australia (RBA) as the underlying dataset. This information is then revised and adjusted for reasonableness under the current economic circumstances.

As a result of the analyses above, a standard rate of 75 basis points shock level was selected as a 'reasonably possible' change in market interest rate.

75 basis points is considered reasonable because it is reasonably possible that there will be greater volatility compared to that which has been experienced in recent years, however, not to the extent of the extraordinary volatility experienced in 2008-09.

(ii) Foreign currency rate risk

This refers to the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign currency rates. ANSTO is exposed to foreign currency rate risk primarily from trade creditors. The impact only relates to assets and not profit and loss or equity.

The method used to arrive at the possible risk of 12% was based on both statistical and non-statistical analyses. The statistical analysis has been based on main currencies movement for the last five years. The two main currencies ANSTO has exposure to are USD and EURO currencies. This information is then revised and adjusted for reasonableness under the current economic circumstances.

A standard rate of 12% is considered reasonable because it is reasonably possible that there will be greater volatility compared to that which has been experienced in recent years, however, not to the extent of the extraordinary volatility experienced in 2008-09.

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Governance and performance

Compliance

ANSTO is subject to the provisions of various Commonwealth Acts, Regulations made under these various Acts and Commonwealth Awards.

The principal Act is the *Australian Nuclear Science and Technology Organisation Act 1987 (ANSTO Act)*.

The principal Award is the Australian Nuclear Science and Technology Organisation (General) Award 1990.

Amendments to governance parts of the ANSTO Act

There were no changes to the governance part of the ANSTO Act during 2008-2009 reporting period.

Nuclear liability

The Minister executed a fresh Deed of Indemnity on 27 August 2008 following the expiry of the existing Deed on that day. The new Deed extends the indemnity for a further ten-year period. The Indemnity commits the government to meeting any damages awarded against ANSTO, its employees and its contractors for damage caused by ionising radiation whilst providing comfort to the local community and to ANSTO's suppliers, who cannot be covered by ANSTO's normal insurance arrangements and are not accustomed to being exposed to risks of this nature. Any claim would first attach to the general $50 million cover that ANSTO has with COMCOVER to the extent that it was insured under that policy, with the remainder covered by this indemnity agreement.

The functions of the Board

A Board established under Section 8 of the *Australian Nuclear Science and Technology Organisation Act 1987* governs ANSTO. The general functions of the Board, as set out in Section 10 of the ANSTO Act, are to ensure the proper and efficient performance of the functions of the organisation and to determine the policy of the organisation with respect to any matter, having regard to the current policies of the Commonwealth Government.

In particular, it has responsibility for:

- approval of organisational strategy and the annual business plan and budget
- monitoring financial performance
- monitoring managerial performance
- ensuring that the significant risks facing the organisation have been identified, and that appropriate control, monitoring and reporting mechanisms are in place.

The *Commonwealth Authorities and Companies Act* (CAC Act) requires the Board to comply with certain accountability and corporate governance principles, including:

- the maintenance of an Audit Committee
- specific financial and reporting provisions
- disclosure of all Board members' personal interests
- provision of indemnities and indemnity insurance in certain circumstances.

All CAC Act requirements are currently being met.

Processes are in place for performance assessment of both the Board and its Audit Committee and individual members thereof.

The Board has established an Audit Committee and a Remuneration Committee. All matters considered by those Committees are submitted to the Board for information and, where appropriate, ratification.

Board Charter

ANSTO has an established Board Charter, setting out the respective rights and responsibilities, functions and powers of Board members and ANSTO executives. It is made available internally on the ANSTO internet site.

Board membership

During the 2008-2009 financial year, the Board comprised eight non-executive members, drawn from the broader community, who are not involved in the day-to-day running of the organisation, and a Chief Executive Officer.

The ANSTO Act provides that the Chief Executive Officer shall manage the affairs of the organisation, subject to the directions of, and in accordance with, policies determined by the Board. Senior management attend Board meetings as required to report on matters relevant to their individual areas of responsibility.

Each member brings complementary skills and experience to the Board. Its members during the 2008-2009 financial year had experience in areas that included industry, information and communication technology, mining, scientific research, medicine and the commercialisation of research.

The Board meets regularly in accordance with a formally approved timetable and agenda.

Eight Board meetings were held during the 2008-2009 financial year. Details of the number of Board meetings attended by each member during the period in which each member held office during the financial year are shown below.

Board remuneration and allowances

The remuneration and allowances of members of the Board, including the Chief Executive Officer, are determined by the Remuneration Tribunal.

Remuneration of Board members is disclosed in the Financial Statements.

Disclosure of interests of Board Members

Sections 27F-27K of the CAC Act provides for the disclosure of material personal interests in a matter that is being considered by the Board, and prohibits participation, deliberation and decision making by any member on such matters. All these requirements were met during the year.

Meetings – Board

Member	Eligible to attend	Attended
Dr Zygmunt Switkowski (Chair)	8	8
Professor David Copolov	8	8
Professor Paul Greenfield AO	8	6
Professor John Hearn	8	5
Ms Christine McLoughlin	2	2
Ms Erica Smyth	3	3
Mr William Scales AO	8	6
Professor Andrew M Scott	8	8
Mr Edward N Pretty	3	1
Dr Adrian Paterson (Chief Executive Officer from 1 March 2009)	2	2
Dr Ronald Cameron (Acting Chief Executive Officer to 28 February 2009)	5	5

Board member access to independent professional advice

The Board has established procedures by which members, in the interests of their duties, may seek independent professional advice at ANSTO's expense. In brief, members must first seek permission from the ANSTO Chairman.

Report of operations

Section 9, Schedule 1 of the CAC Act requires that the Organisation's Annual Report include a report of operations. The Commonwealth Authorities and Companies (Report of Operations) Orders 2005 set out the requirements for such a report.

The Board reports that:

- ANSTO's mission and strategic directions are being actioned
- Actual performance is reported against approved performance indicators
- There have been no significant changes in ANSTO's state of affairs or principal activities during the year
- ANSTO has continued to manage both the risks and opportunities it faces.

The Board reports that, in the opinion of senior management and the Board, at the time of making this report, adequate cash resources are, and will continue to be,

Meetings – Audit Committee

Member	Eligible to attend	Attended
Mr William Scales AO (Chair)	5	4
Professor David Copolov	5	5
Professor Paul Greenfield AO	5	4
Professor John Hearn	5	3
Ms Christine McLoughlin	1	1
Professor Andrew M Scott	5	5
Ms Erica Smyth	2	2
Mr Warren Wilton (External Member)	5	5
Mr Edward N Pretty	2	0

available to cover ANSTO's requirement for working capital, to pay existing debts, and meet obligations during the next financial year.

The Board states that a risk oversight and management policy and supporting processes are in place and that adequate systems are in place to ensure compliance with this policy.

Health, safety and environmental protection

The Board places primary importance on the safe performance of all ANSTO activities. The monitoring of health, safety and environmental protection in general, and compliance with relevant legislation in particular, is designated as a responsibility of the whole Board. During 2008-2009, ANSTO management commenced a project to integrate all ANSTO's management systems and deliver a site wide database that would provide comprehensive auditing records and enhanced reporting of OHSE issues.

Audit Committee

The Audit Committee, a formal sub-committee of the Board, comprised during the year Mr W Scales AO, Professor P Greenfield AO, Mr EN Pretty, Professor AM Scott, Professor D Copolov, Professor J Hearn, Ms E Smyth, Ms C McLoughlin and a member external to ANSTO, Mr W Wilton. Mr Wilton is a Chartered Accountant. The Chief Executive Officer, the Chief Financial Officer, representatives of the Australian National Audit Office and the Chief Internal Auditor attended all meetings or relevant parts of all meetings by invitation.

In accordance with good practice, all Board members receive copies of Audit Committee papers and meeting minutes, and can attend Committee meetings as a right. This Committee was established by the Board under a formal written Charter to oversee the organisation's risk management policies, practices and controls in relation to financial and commercial activities, including the financial reporting process, legislative and regulatory conformance, corporate governance and asset protection. Its Charter extends to the review of safety and environmental systems and performance. Additionally in accordance with the provisions of the CAC Act, the Committee is responsible for assisting Board members to fulfil their specific responsibilities under that Act.

The Committee has unlimited access to both the internal and external auditors and to senior management.

The Committee scrutinises the annual financial statements of ANSTO and considers the appropriateness of accounting practices reflected therein. It receives a signed recommendation from the Chief Executive Officer, and the Chief Financial Officer, as to the veracity of the financial statements signed by the Board.

Five Audit Committee meetings were held during the financial year. Details of the number of Committee meetings held and attended during the period in which each member held office during the financial year are provided in the table above.

The remuneration and allowances of Board members who are members of the Audit Committee are determined by the Remuneration Tribunal.

Remuneration Committee

The Remuneration Committee, a formal subcommittee of the Board, comprised during the year Dr Z Switkowski (Chair) and Mr W Scales. The Chief Executive Officer, attends all meetings or relevant parts of all meetings by invitation. Others attend meetings, as appropriate, at the invitation of the Committee.

This Committee was established by the Board under a formal written Charter to oversee:

- The overall remuneration policy and strategy for the organisation
- The performance and remuneration policies for the Chief Executive Officer
- The compliance of remuneration policies and practices with statutory and regulatory requirements.

Meetings – Remuneration Committee

Member	Eligible to attend	Attended
Dr Ziggy Switkowski (Chair)	1	1
Mr William Scales AO	1	1

Technical Advisory Committee

The Technical Advisory Committee, formally established in accordance with a Board decision, comprises four members, all of whom are external to ANSTO. Members are chosen on the basis of internationally recognised scientific expertise and experience. The current members (as at 30 June 2009) of the Committee are Emeritus Professor Peter Robinson, Professor William Stirling, Dr David Macfarlane and Professor Jonathan Overpeck.

This Committee operates under written terms of reference and was established by the ANSTO Board to advise it on the quality and relevance of the portfolio of research projects being undertaken at ANSTO

Specifically the TAC provides an expert overview of research and addresses the following matters:

- To provide strategic advice to the Board concerning the research project portfolio
- To provide the Board with an overview of the quality of research within ANSTO's portfolio
- To advise on any matters affecting the quality of research outputs

The Committee was formally constituted in October 1996 and is required to meet at least once per year. The TAC did not meet during 2008-2009 as the role of this Committee is being reassessed.

The remuneration and allowances of members of the TAC are determined by the Remuneration Tribunal.

Induction and continuing professional development of ANSTO executives

Processes are in place for induction and ongoing education to inform executives of their responsibilities and rights. New executives have access to appropriate induction documents and processes (including those relating to safety and security) and to ANSTO officers.

Performance review for ANSTO executives

All executives have performance objectives and targets and during the 2008-2009 financial year performance reviews were conducted of the Chief Executive Officer and all other members of the Senior Management team.

Risk management

The Board recognises that developing and implementing ANSTO's strategies requires careful assessment and balancing of both risk and opportunity.

The Board is charged with the responsibility of ensuring that appropriate policies are in place to cover identified risks, and management is required to develop appropriate procedures to manage these risks.

The Board endorses the risk management framework implemented by management.

As part of this framework, ANSTO undertakes a systematic program of risk assessments designed to identify, evaluate and prioritise high and significant risks, utilising a methodology consistent with the Australian Risk Management Standard AS/NZS 4360/2004. The Audit Committee and the Australian National Audit Office (ANAO) receive summaries of all risk assessment reports. ANSTO has an Enterprise Risk Management Register, supported by individual operational level risk registers which are regularly reviewed by the ANSTO Risk Management Committee comprising of Senior Executives of the Organisation.

ANSTO's risk management policy provides that it is the responsibility of the operational management of ANSTO to develop and implement risk mitigation strategies. The overall risk framework is actively applied in ANSTO's operations and to new initiatives in particular. Project risk management remains a significant area of focus in particular capital works projects.

In appropriate circumstances, insurance is used as a method to transfer the financial impact of risk.

The Board, supported by the Audit Committee, oversees the development and operation of business continuity planning and other emerging risk issues.

Ethical standards

ANSTO's ethics policy is set out in a document entitled Code of Ethics – A Code for ANSTO Staff. The Code provides a reference point for ethical behaviour and applies to members of the Board, management and all staff. The Code sets out the standards for ethical behaviour and conduct and provides guidance by defining the expected values and standards of workplace behaviour and performance.

Fraud control

The organisation has an established fraud control policy and plan, in line with the Fraud Control Policy of the Commonwealth and guidelines set out by the Attorney General's Department, Criminal Justice Division.

External audit

Under Section 8 of the CAC Act the Commonwealth Auditor-General, through the ANAO, is the external auditor for ANSTO.

The ANAO, as a matter of policy, provides only audit services to ANSTO.

The Audit Committee reviews the ANAO audit plan and reports and meets with ANAO representatives prior to recommending to the Board that the annual financial statements be accepted and the Statement by Directors signed.

Internal audit

The ANSTO Internal Audit function has a dual reporting line to the Audit Committee and the Chief Executive Officer. Its responsibility is to provide an independent, risk-based review function, as set out in a formal Charter periodically reviewed by the Audit Committee and endorsed by the Board. The Audit Committee approves the

annual Internal Audit plan and receives regular reports on progress against that plan.

Internal control

The Board is responsible for ensuring that appropriate policies and internal controls are in place and operating.

Compliance and review are monitored through the Audit Committee and the Internal Audit function.

Service Charter

ANSTO's Service Charter sets out a statement of what ANSTO does and the standards of product and service that customers, stakeholders and the community can expect from the organisation.

Judicial decisions and reviews by outside bodies

There were no judicial decisions or decisions of administrative tribunals that had a significant impact on the operations of ANSTO during the reporting year.

There were no specific reports issued by the Commonwealth Auditor-General, other than that issued in relation to the 2008-2009 financial statements.

There were no reports on the operations of ANSTO by a Parliamentary Committee or the Commonwealth Ombudsman during the reporting year.

Ministerial directions

In August 2008, the Minister for Innovation, Industry, Science and Research directed ANSTO under Section 11 of the ANSTO Act, to implement and comply with the Bargaining Framework in relation to ANSTO employees, including the redeployment, relocation and retrenchment provisions of the Bargaining Framework. There were no other ministerial directions to ANSTO made under either the ANSTO Act or the CAC Act during the reporting year.

Public Research Agency Charter

The ANSTO Board and the Minister signed the charter above during the financial year. The charter recognises that the primary functions of ANSTO are to conduct scientific research and development in relation to the applications of nuclear science and technology, to deliver specialised advice, scientific services and products to government, universities, other research organisations, international organisations and businesses, and to operate unique nuclear facilities.

To provide clear guidance to ANSTO and its individual researchers engaging in public debate the Minister and the Board of ANSTO agree to the following principles.

1. Open communication and dissemination of the findings of research and factual information.
2. Encouragement of debate on issues of public interest.
3. Recognition of the role of ANSTO and its researchers in public communication and debate.
4. The contestability of ideas.

5. Independence and integrity of public research institutions in their research activities.

6. Government is accountable to Parliament and the people, and remains responsible for policy formulation and implementation.

Indemnities and insurance premiums for officers

ANSTO's insurance coverage includes professional indemnity and directors' and officers' liability. Certain sections of the CAC Act contain prohibitions against ANSTO giving indemnities and paying insurance premiums relating to liabilities arising from conduct involving a lack of good faith by officers. There have been no exceptions to these provisions and no claims were made against ANSTO in respect of such liability that required a claim on ANSTO's insurer, Comcover.

Business continuity planning

Continuity of ANSTO business is a critical issue that has been considered and planned for by the Board, the Chief Executive Officer and senior management. Many services delivered by ANSTO are critical to the economic and social well-being of our society. A failure to deliver these could have significant consequences for those concerned. As a consequence, ANSTO regularly reviews all aspects of its business continuity management to ensure a constant state of readiness. In 2007-2008 ANSTO's crisis management plan was updated. Throughout 2008-2009 ANSTO has worked to complete development of a complete set of plans. As of July 2009, 9 of 11 plans have been fully developed and for the remaining 2, initial plans have been developed and tested. A test schedule has been developed and is progressively being implemented. In light of recent developments and consistent with advice from both Federal and State Government agencies, ANSTO has developed and tested a Pandemic Business Continuity Plan. This has been integrated into the ANSTO Business Continuity and Disaster Recovery Planning management framework.

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Appendices

Appendix 1

Equality of Employment Opportunity

Objectives

1. To ensure that Equal Employment Opportunity (EEO) principles and practices are actively incorporated into all people management practices.
2. To ensure that the structures and processes used to implement EEO adjust to changing employment needs.
3. To confirm and communicate the vision that ANSTO's employment activities reflect ANSTO's values.

ANSTO actively seeks to implement EEO and diversity principles in its management practices. Human resource processes operate within the ISO 9001 framework.

Equality of employment opportunity

	Number employed		% of total staff		Average salary	
	2007-2008	**2008-2009**	2007-2008	**2008-2009**	2007-2008	**2008-2009**
Female	289	250	28%	27%	$63,330	$66,030
Male	739	676	72%	73%	$74,940	$81,107

	Number employed		% of total staff		Average salary	
	2007-2008	**2008-2009**	2007-2008	**2008-2009**	2007-2008	**2008-2009**
People with disabilities	19	11	1.80%	1%	$68,514	$69,847
Aboriginal & Torres Straight Islander	13	9	1.30%	1%	$63,877	$74,294
Non-English speaking background	59	195	5.70%	21%	$74,490	$81,233

Appendix 2

Functions and powers of the Organisation under the ANSTO Act

This appendix describes the functions and powers of the organisation under the *Australian Nuclear Science and Technology Organisation Act 1987* (ANSTO Act), which is ANSTO's enabling legislation. In the text below, 'Organisation' means the Australian Nuclear Science and Technology Organisation.

Section 5: Functions of the Organisation

(1) The functions of the Organisation are:

(a) to undertake research and development in relation to:

(i) nuclear science and nuclear technology; and

(ia) the application and use of nuclear science and nuclear technology; and

(ii) the production and use of radioisotopes, and the use of isotopic techniques and nuclear radiation, for medicine, science, industry, commerce and agriculture; and

(iii) such other matters as the Minister directs; and

(b) to encourage and facilitate the application and use of the results of such research and development; and

(ba) to condition, manage and store radioactive materials and radioactive waste, arising from:

(i) the Organisation's activities (including the production of radioactive materials for other persons); or

(ii) the activities of companies in which the Organisation holds a controlling interest (including the production of radioactive materials for other persons); or

(iii) the use by other persons of radioactive materials produced by the Organisation or such companies; or

(iv) the activities of other persons who are specified in the regulations; and

(bb) to condition, manage and store radioactive materials and radioactive waste generated, possessed or controlled by the Commonwealth or a Commonwealth entity; and

(bc) to condition, manage and store radioactive materials and radioactive waste at the request of:

(i) a law enforcement agency; or

(ii) a Commonwealth, State or Territory agency responsible for the management of emergencies or disasters;

Appendix 2

Functions and powers of the Organisation under the ANSTO Act

including, but not limited to, radioactive materials or radioactive waste involved in, or arising out of, a radiological incident or a radiological emergency; and

(bd) to condition, manage and store radioactive waste that has been, or is to be, sent to Australia under contractual arrangements relating to the conditioning or reprocessing of ANSTO spent nuclear fuel; and

(c) to produce, acquire, provide and sell goods, and to provide services, that are:

(i) in connection with the production and use of radioisotopes, and the use of isotopic techniques and nuclear radiation, for medicine, science, industry, commerce and agriculture; or

(ia) in connection with the conditioning, management and storage of radioactive materials or radioactive waste; or

(ib) in connection with nuclear science and nuclear technology; or

(ic) in connection with the application and use of nuclear science and nuclear technology; or

(ii) otherwise in connection with matters related to its activities; and

(d) to act as a means of liaison between Australia and other countries in matters related to its activities; and

(e) to provide advice on aspects of:

(i) nuclear science and nuclear technology; and

(ii) the application and use of nuclear science and nuclear technology; and

(iii) other matters related to its activities; and

(ea) to make available to other persons, on a commercial basis, the knowledge, expertise, equipment, facilities, resources and property of the Organisation by:

(i) providing training and management expertise; or

(ii) selling or leasing equipment; or

(iii) leasing land, buildings and facilities; or

(iv) taking any other action that the Organisation thinks appropriate; and

(f) to cooperate with appropriate authorities of the Commonwealth, the States and the Territories, and with other organisations and institutions in Australia or elsewhere, in matters related to its activities; and

Appendix 2

Functions and powers of the Organisation under the ANSTO Act

(g) to publish scientific and technical reports, periodicals and papers on matters related to its activities; and

(h) to collect and sell or distribute, as appropriate, information and advice on matters related to its activities; and

(j) to arrange for training, and the establishment and award of scientific research studentships and fellowships, in matters related to its activities; and

(k) to make grants in aid of research into matters related to its activities; and

(m) to make arrangements with universities and other educational research institutions, professional bodies and other persons for the conduct of research or of other activities in matters related to its activities.

(1A) A regulation made for the purposes of subparagraph (1)(ba)(iv) must not have the effect of authorising the premises on which the Lucas Heights Research Laboratories are situated to become a national nuclear waste repository.

(1B) In subsection (1A):

national nuclear waste repository means a site chosen by the Commonwealth, after the commencement of this subsection, for the storage of nuclear waste with a view to it never being moved to another site.

(1C) Without limiting paragraph 5(1)(bb):

(a) radioactive materials and radioactive waste generated by a Commonwealth contractor under a contract between the Commonwealth contractor and the Commonwealth or a Commonwealth entity are taken to be generated by the Commonwealth or the Commonwealth entity, as the case requires; and

(b) radioactive materials and radioactive waste possessed or controlled by a Commonwealth contractor under a contract between the Commonwealth contractor and the Commonwealth or a Commonwealth entity are taken to be possessed or controlled by the Commonwealth or the Commonwealth entity, as the case requires.

(2) The Organisation shall not undertake research or development into the design or production of nuclear weapons or other nuclear explosive devices.

(3) In undertaking its functions, the Organisation is to have regard to:

(a) the Commonwealth Government's national science, technology and energy policy objectives; and

(b) the Commonwealth Government's commercialisation objectives for public research institutions.

Appendix 2

Functions and powers of the Organisation under the ANSTO Act

(4) The Minister shall not give a direction under subparagraph (1)(a)(iii) to the Organisation to undertake research or development in relation to a matter unless the Minister is satisfied that research or development by the Organisation in relation to that matter would be an effective use of the staff of the Organisation, and would not duplicate unnecessarily any activity being carried on, or proposed to be carried on, by any other agency or authority of the Commonwealth.

(5) The Organisation may perform its functions to the extent only that they are not in excess of the functions that may be conferred on it by virtue of any of the legislative powers of the Parliament, and, in particular, may perform its functions:

(a) in so far as it is appropriate for those functions to be performed by the Organisation on behalf of the Government of the Commonwealth as the national Government of Australia; and

(b) for purposes for which it is appropriate for the Parliament as the national Parliament of Australia to authorise the Organisation to perform functions; and

(c) by way of expenditure of money that is available for the purposes of the Organisation in accordance with an appropriation made by the Parliament; and

(d) in the course of, or in relation to, trade and commerce with other countries, among the States, between Territories or between a Territory and a State; and

(e) for purposes related to external affairs; and

(f) for purposes in or in relation to a Territory; and

(g) for purposes related to the defence of the Commonwealth.

Section 6: General powers of Organisation

(1) Subject to this Act, the Organisation has power to do all things necessary or convenient to be done for or in connection with the performance of its functions and, in particular, has power:

(a) to enter into contracts;

(b) to acquire, hold and dispose of real or personal property;

(c) to occupy, use and control any land or building owned or held under lease by the Commonwealth and made available for the purposes of the Organisation;

(d) to erect buildings and structures and carry out works;

(e) to form, or participate in the formation of, a company or partnership;

(f) to appoint agents and attorneys, and to act as an agent for other persons;

(g) to engage persons to perform services for the Organisation;

(h) to design, produce, construct and operate equipment and facilities; and

(j) to do anything incidental to any of its powers.

(2) The powers of the Organisation may be exercised within or outside Australia.

(3) To avoid doubt, the Organisation has the power to construct buildings and facilities for the sole purpose of performing the function referred to in paragraph 5(1)(ea).

Appendix 3

Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act), section 516A

Environmental Protection

ANSTO is committed to operating in a manner that protects the environment and is consistent with Australian and international standards. Environmental awareness is promoted throughout the organisation that strives for continual improvement in environmental performance.

Environmental management system

To provide assurance that ANSTO is maintaining sound environmental protection practices, we maintain an environmental management system (EMS) that is certified to the International Standard ISO 14001. This standard requires that environmental risks and legal requirements are understood and managed, an appropriate measurement and review system is in operation, and that there is an organisational commitment to continual improvement. In addition all parts of our environmental monitoring program operate within a quality system certified to the ISO 9001:2000 standard for Quality Management Systems.

Environmental performance

Accurate measurements with independent verification

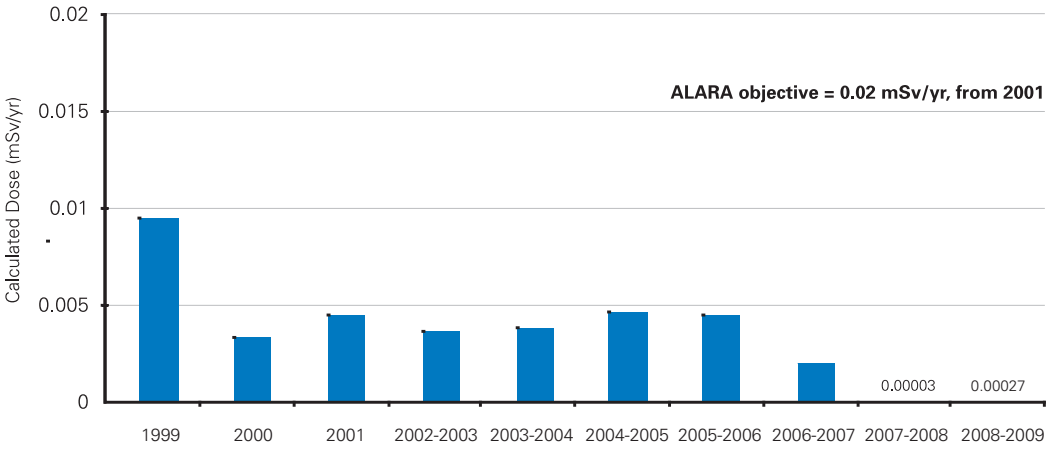
ANSTO's environmental monitoring program includes measuring radioactivity and some key non-radioactive materials in air and liquid emissions and in samples of air, surface- and ground-waters, sediment and biota from the local environment. General environmental radiation is also monitored and local weather patterns reported. Many monitoring capabilities are independently verified.

Environmental monitoring in 2008-2009 confirmed that ANSTO's authorised releases of radioactive material to the air and sewer have minimal impact on the environment, and that the modern OPAL reactor has significantly reduced the contribution made by ANSTO's research reactor to the already tiny potential public dose from airborne emissions.

Air

Since the levels of radioactivity released to air are low, computer modelling is used to estimate the potential radiation doses to people at various distances from the site. The maximum public dose estimated for ANSTO's airborne emissions in 2008-2009 was 0.00027 mSv. This corresponds to less than 0.03 per cent of the annual public dose limit of 1.0 mSv, established by ARPANSA and continues the trend of decreased dose estimates over the previous ten years (see graph on following page).

For our closest neighbours, ANSTO's activities added less than 0.002 per cent to the 1.5 mSv dose that every Australian receives from natural background radiation each year.



Maximum annual effective dose from LHSTC airborne discharges at the 1.6 km boundary of ANSTO's buffer zone, 1999 to 2009

Liquid effluent discharges within limits

Effluent discharged from ANSTO into the sewer complied with all limits for radioactive discharges, in accordance with the Trade Waste Agreement with Sydney Water. Compliance with these limits ensures that water at the Cronulla sewage treatment plant meets World Health Organisation drinking water standards for radioactivity. Concentration limits for non-radioactive materials such as ammonia, zinc and total dissolved solids were also met. Sydney Water conducts independent testing of liquid effluent discharges to sewer and the Trade Waste Agreement is periodically reviewed to provide assurance that ANSTO's discharges remain within authorised limits and pose no threat to the environment.

Effluent from the Sutherland Shire undergoes tertiary treatment at the Cronulla sewage treatment plant and is ultimately discharged to the ocean at Potter Point. In 2008 a radiological risk assessment carried out for marine biota in the receiving environment confirmed that there is negligible risk to marine life from ANSTO's liquid effluent discharges.

Good water quality

ANSTO regularly monitors stormwater leaving the site, as well as sampling the nearby Woronora River. Results show that concentrations of tritiated water in the environment are decreasing since the HIFAR reactor's closure in January 2007, and are well below the level considered safe for Australian drinking water. Gross alpha and beta measurements were also below the levels required for stormwater/surface waters, following the *NSW Protection of the Environment Operations Act 1997*. In fact, most measurements were below the stricter

Appendix 3

Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act), section 516A

screening levels from the Australian Drinking Water Guidelines (ADWG). ANSTO's stormwater does not contribute to any public water supply, however referring to the ADWG provides a useful context for understanding our data. Monitoring of groundwater at the Lucas Heights site showed no detectable ANSTO-produced radionuclides apart from very low levels of tritium.

Detailed reporting

The results and findings from our environmental monitoring program are available to the public in the annual report series Environmental and Effluent Monitoring at ANSTO Sites, available on the ANSTO website.

ANSTO also reports annually to the Department of Environment and Heritage about any of its activities that fall under the National Environmental Protection Measures. Overall, ANSTO commits significant resources to effectively monitor, manage and report on its environmental impacts and responsibilities

Ecologically sustainable development (ESD)

ANSTO's commitment to environmental protection and sustainability principles is embedded at the highest level. The organisation has defined strategic directions which inform its social, economic and environmental core values. These priorities are integral to ANSTO's Business Management System – the framework that defines how business is conducted to deliver outcomes to our customers and stakeholders in a safe, consistent and environmentally responsible manner. Specific local arrangements and objectives for protecting human health, safeguarding our operations and minimising our environmental footprint derive from these overarching documents.

ANSTO activities that contribute to ESD include our research into significant environmental issues such as dryland salinity, water management, human impacts on climate variability and purification of waste water. This research enhances scientific knowledge and improves environmental outcomes. ANSTO's active support of nuclear non-proliferation ideals and the development of nuclear safeguards through its collaborative research with bodies such as the International Atomic Energy Agency and the Comprehensive Test Ban Treaty Organisation, also accords with ESD principles.

Finally, ANSTO's commitment to sound environmental management and ecologically sustainable development means that special emphasis is placed on reducing the environmental footprint by minimising waste production and the consumption of resources such as paper, electricity and water, and by recycling consumables. It also ensures that we manage our past and current waste in a manner that protects human health and the environment, now and in the future.

Appendix 4

Occupational Health and Safety (Commonwealth Employment) Act 1991, section 74

Safety arrangements

ANSTO is committed to ensuring a safe and healthy environment for employees, visitors, contractors and the external community. All ANSTO activities are governed by a "safety first" philosophy that means work is planned and will only be performed if it is judged to be safe.

Safety and environmental principles, values and commitments are set out in the ANSTO Health, Safety and Environment Policy which is supported by a framework of documents that constitutes our safety management system. Key elements of the safety system are:

- documented requirements and guidance,
- formal review and approval of potentially hazardous work,
- auditing and evaluation of safety performance
- communication of safety issues and performance to workers and the community.

Accidents and incidents

An important part of ANSTO's safety management system is the capturing of information on all safety-related events including accidents and 'near misses'. This ensures the proper investigation of all such events and the implementation of safety improvements. It also gives us data to drive improvements in ANSTO's safety performance. One key indicator of safety performance is the percentage of near miss events reported. 2008/09 saw a slight increase in the number of near miss events reported with 69.5 per cent of events reported offering an opportunity for improvement before an injury occurred.

ANSTO also works with its regulators to improve OHS across site. In 2008-2009 ANSTO informed Comcare of 19 notifiable incidents. Five of these were serious injuries – one of which related to a sporting injury and 14 dangerous occurrences. The increase over the number of notifiable events recorded in 2007-08 is largely attributable to Comcare applying a stricter interpretation of the events requiring notification.

Australian Radiation Protection and Nuclear Safety Regulations 1999, Statutory Rules 1999 No. 37 as amended.

Occupational Radiation Exposure

Everyone is exposed to ionising radiation from natural sources. People may also be exposed to radiation from non-natural sources, including nuclear medical procedures for diagnosis and treatment of certain illnesses. Personal radiation exposure ("dose") is measured in sieverts (Sv), however, typical annual exposures are so small that they are usually expressed in units of one thousandth of a sievert, known as a millisievert (mSv). According to the most recent data from ARPANSA, the average dose an Australian receives from natural background radiation (excluding medical sources) is 1.5 mSv per year.

Federal and State regulations require that a member of the public should receive no more than 1 mSv per year from radiation

Appendix 4

Occupational Health and Safety (Commonwealth Employment) Act 1991, section 74

sources other than background radiation and medical procedures. The regulatory limit for radiation workers is 20 mSv per year, averaged over five years, with no more than 50 mSv in any one year. This is derived from recommendations made by the International Commission on Radiation Protection (ICRP), who have specified three basic principles for radiation protection, which are applied at ANSTO:

- All exposures to ionising radiation shall have a positive net benefit
- All exposures shall be maintained As Low As Reasonably Achievable (ALARA), accounting for social and economic factors.
- All exposures shall be less than the relevant statutory limit.

The application of these principles, requires us to ensure that our occupational exposures are not just less than the statutory dose limit(s), but are as far below them as we can reasonably achieve. To this end ANSTO has imposed its own annual dose constraint of 15 mSv to any member of staff, visitor or contractor.

The radiation exposure of ANSTO's workers who are routinely engaged in working with ionising radiation, is monitored by our specialist dosimetry service, with records of all exposures maintained. Monitoring results for 2008-2009 show that the radiation doses received by ANSTO workers remain significantly below regulatory limits.

Table 1 shows the maximum, average and collective effective doses for the past five years. Collective effective dose is the total cumulative dose to an exposed group, in this case all ANSTO personnel registered with our radiation dosimetry service.

Table 1: Effective dose

	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
Maximum effective dose mSv	10.2	10.2	9.4	8.9	8.6
Average effective dose mSv	0.8	0.8	0.6	0.6	0.6
Collective effective dose person-mSv	697	690	545	531	542

Table 2: Distribution of individual effective dose

dose ranges (mSv)	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
0 to < 2	807	751	926	914	907
2 to < 5	66	61	41	36	37
5 to < 10	20	28	13	13	12
10 to < 15	1	1	0	0	0
> 15	0	1	0	0	0

Appendix 4

Occupational Health and Safety (Commonwealth Employment) Act 1991, section 74

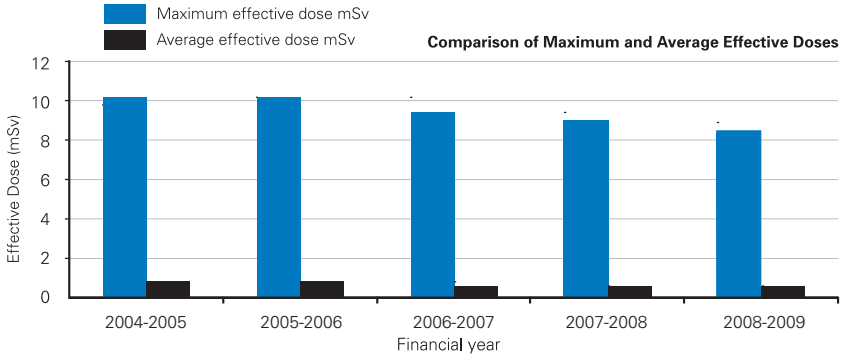


Table 2 shows the distribution of individual effective doses over the same period. The graph in Figure 1 compares maximum and average effective doses. Regulations give annual dose limits for radiation workers for the whole body (effective dose), for the skin (shallow dose) and for extremities such as hands or feet. The dose limits are:

- whole body 20 mSv, averaged over five years
- shallow (skin) 500 mSv
- extremities 500 mSv.

Emergency preparedness and responses

ANSTO and emergency services organisations jointly maintain a 24-hour emergency response capability to deal with incidents at Lucas Heights. The Response Plan for Accidents and Incidents describes how an emergency response will be coordinated and identifies who is responsible for which actions. Each organisation has standing procedures detailing each individual response. NSW emergency services manage responses to emergencies with potential significant offsite radiological consequences at state-level according to the Lucas Heights Emergency Sub Plan. There is also a district-level Lucas Heights Emergency Evacuation Sub Plan supporting these arrangements. In the event of an emergency, ANSTO staff would give technical assistance and practical support to emergency service organisations.

ANSTO maintains a close working relationship with emergency service organisations through the Local Liaison Working Party. The working party includes ANSTO specialists and representatives of emergency service organisations, local government, and support organisations, including NSW Health. ARPANSA is an observer.

An ongoing program of emergency training and evacuation drills is in place for all of site. Staff in each work area undergo training in the local emergency response protocols and are familiarised with the appropriate muster points. This training is supplemented with evacuation drills that are run with the respective Building Wardens.

ANSTO staff continued to run the Radiological Awareness Program for local emergency service organisations and functional groups in cooperation with ARPANSA. Specific radiological training is also provided to the NSW Fire Brigade members as part of their HAZMAT training.

Appendix 5

Freedom of Information Act 1982, subsection 8(1)

In compliance with Section 8 of the *Freedom of Information Act 1982* (FOI Act), the following is the annual statement on consultative arrangements, categories of documents maintained, and facilities and procedures for access to documents relating to ANSTO. Details of the functions of the organisation, membership of the Board and decision-making powers of the Board and the Executive are provided elsewhere in the annual report.

Arrangements for external participation

Liaison groups

A technical advisory committee advises the ANSTO Board on the research projects being undertaken at ANSTO. Details of its role and composition can be found on pages 88 of this annual report.

The Local Liaison Working Party (LLWP), established in 1967, comprises representatives from the NSW Police, Ambulance, Fire Brigades, Rural Fire Service, the NSW Department of Environment and Conservation, the NSW Department of Health, the Australian Federal Police, the Georges River District Emergency Management Officer, the State Emergency Management Committee, the State Emergency Service, Sutherland Shire Council and ANSTO, as well as an observer from ARPANSA. The LLWP is a communication forum for all parties which play a role in emergency preparedness and response at the Lucas Heights Science and Technology Centre (where ANSTO is located).

ANSTO state government arrangements

Given that ANSTO is located in New South Wales, it liaises with a range of NSW departments and authorities responsible for safety, environmental planning and related matters.

Associated organisations

The Australian Institute of Nuclear Science and Engineering, an association of ANSTO, the Institute of Geological and Nuclear Science (New Zealand) and 39 universities, arrange access by staff and students of Australasian universities to the major facilities at ANSTO.

Other arrangements

Less formal arrangements exist for promoting discussions, the exchange of views and/or collaboration with organisations outside the Commonwealth administration. These organisations include local government authorities, universities, standards bodies, professional societies, unions and staff associations, industrial groups and international nuclear agencies.

Categories of documents held

Computer software packages, computer printouts, technical books and reports, and International Nuclear Information System documents are available for purchase. Single copies of the annual report, Nuclear Matters, strategic plans, ANSTO emergency plans, environmental monitoring reports, general information

Appendix 5

Freedom of Information Act 1982, subsection 8(1)

literature, videos and DVDs (under loan arrangements) are available on request.

Documents relating to decision-making processes include Cabinet documents about matters in which ANSTO has an interest; ministerial correspondence and directions; ANSTO Board agenda, memoranda and decisions; deeds, legal contracts and formal agreements; minutes and submissions; employment, delegations, security, finance and accounting handbooks and manuals. General correspondence includes ministerial briefs; speeches; conference papers for national and international meetings; parliamentary questions and answers; cables, telexes and facsimiles; and general records files.

Technical documents held include scientific and technical reports and laboratory notes comprising patents and inventions; computer media; plant and equipment operating manuals; maintenance, quality assurance and safety manuals; reactor operating authorisations, records and log books; radioisotope quality control procedures manuals; radioisotope catalogues and price lists; engineering service general records; nuclear material movement vouchers and accounting records; photographs; and radiographs.

Health and safety documents include staff medical records; safety-related survey records; film badge and radiological records; accident reports; and emergency response procedures.

Administration documents held include personnel records such as staff promotion files; ANSTO awards; organisation and establishment reports; compensation files; computer media with administrative instructions and information storage; staff lists and classifications; mailing lists; visitor and contractor records; Freedom of Information requests; accounting records; pay-roll, flexitime and overtime records; tender and contract documents; building plans, specifications and instructions; directives; orders; memoranda; bulletins; notices; and information.

Other documents held include drawing office records such as plans, microfilm, drawings, maps and photographs.

Facilities for access

By arrangement, FOI inquirers can peruse information in the Reception Centre at the entrance to the Lucas Heights Science and Technology Centre. FOI requests and other arrangements for access to documents may be made by contacting the FOI Coordinator, ANSTO, Private Mail Bag 1, Menai, NSW 2234, Australia (email: government.liaison@ansto.gov.au).

ANSTO also has a free enquiry service for members of the public requiring information about the Organisation and its research. This service is outlined in the Community Right to Know Charter available at www.ansto.gov.au.

Interested parties are encouraged to contact enquiries@ansto.gov.au for any information.

Appendix 5

Freedom of Information Act 1982, subsection 8(1)

Information about ANSTO is available on the internet through the organisation's homepage at www.ansto.gov.au.

The ANSTO Senior Adviser, Government Liaison and General Manager, Government and Public Affairs, have been appointed as authorised officers under Section 23 of the FOI Act.

Appendix 6
Index of compliance with reporting guidelines

Index of compliance with reporting guidelines under various Acts, Regulations and Orders applicable to ANSTO as a Commonwealth authority

***ANSTO Act 1987* (As amended)**	
Functions and Powers	94
Commonwealth Authorities and Companies Orders (Financial statements for reporting periods ending on or after 30 June 2005) under the *Commonwealth Authorities and Companies Act 1997* (As amended)	
Financial statements and reports	40
Commonwealth Authorities and Companies (Report of Operations) Orders 2005 under the *Commonwealth Authorities and Companies Act 1997* (As amended)	
Certification of report of operations	ii
Enabling legislation	1, 83
Responsible minister	2
Board members Names, qualifications, experience and special responsibilities, meeting attendance	5-6, 84-85
Organisational structure and location of major activities and facilities	1, 3-4
Review of operations for year and future prospects	16-33, 85
Judicial decisions and reviews by outside bodies	90
Statement on governance	82-91
Effects of ministerial directions	90
Indemnities and insurance premiums for officers	91
Requirements under other guidelines and legislation	
Service charter	90
Ecologically sustainable development and environmental performance	99-101
Freedom of information	105-107
Occupational health and safety	102-104
Fraud control	89
Equality of employment opportunity	93

Acronyms

ADWG	Australian Drinking Water Guidelines
AEIFRS	Australian Equivalents to International Financial Reporting Standards
AFP	Australian Federal Police
AIMS	Australian Institute of Marine Science
AINSE	Australian Institute of Nuclear Science and Engineering
AIP	Australian Institute of Physics
AMT	Australian Membrane Technologies
ANAO	Australian National Audit Office
ANSN	Asian Nuclear Safety Network
ANSTO	Australian Nuclear Science and Technology Organisation
ANTARES	Australian National Tandem for Applied Research
AOFSRR	Asia-Oceania Forum for Synchrotron Radiation Research
ARI	ANSTO Radiopharmaceuticals and Industrials
ARPANSA	Australian Radiation Protection and Nuclear Safety Agency
ASIO	Australian Security Intelligence Organisation
ASNO	Australian Safeguards and Non-Proliferation Office
ASRP	Australian Synchrotron Research Program
ATLAS	ANSTO Technologies, Leaders in Analytical Science
AVO	Australian Valuation Office
CAC Act	Commonwealth Authorities and Companies Act 1997
CcASH	Cosmogenic climate Archives of the Southern Hemisphere
COMET	Commercialising Emerging Technologies
CRC	Cooperative Research Centre
CRC-BID	Cooperative Research Centre – Biomedical Imaging Development
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CSS	Commonwealth Superannuation Scheme
CT	Computed Tomography
DEST	Department of Education Science and Training
DSTO	Defence Science and Technology Organisation
EEO	Equal Employment Opportunity
EMS	Environmental Management System
ESD	Ecologically Sustainable Development
FMOs	Finance Minister's Orders
FDG	Fluorodeoxyglucose
FMOs	Finance Minister's Orders
FNCA	Forum for Nuclear Cooperation in Asia

Acronyms

FOI	Freedom of Information
GIF	Generation IV International Forum
HIFAR	High Flux Australian Reactor
HIP	hot isostatic pressing
IAEA	International Atomic Energy Agency
IFRS	International Financial Reporting Standards
ISO	International Organisation for Standardisation
IsoTrans	Isotopic Tracers in Atmospheric Transport
ISL	International Science Linkages
IYPE	International Year of Planet Earth
LLWP	Local Liaison Working Party
MDU	Minerals Down Under
mSv	millisieverts
NEA	Nuclear Energy Agency
NCRIS	National Collaborative Research Infrastructure Strategy
NMAC	Nuclear Materials Accountancy and Control
NMB	Nanoparticulate Membrane Bioreactor
NORM	Naturally-occurring radioactive materials
NRP	National Research Priorities
NUPP	Nuclear and Particle Physics group
OECD	Organisation for Economic Cooperation and Development
OPAL	Open Pool Australian Light-water reactor
OSMR	NSW Office for Science and Medical Research
PBR	Peripheral-type Benzodiazepine Receptor
PET	Positron Emission Tomography
PSS	Public Sector Superannuation Scheme
QFA	Quadrennium Funding Agreement
RCA	Regional Cooperative Agreement
RIP	Resin in pulp
RRI	Radiopharmaceutical Research Institute
SAR	Safety Analysis Report
SPECT	Single Photon Emission Computed Tomography
STAR	Small Tandem for Applied Research
Sv	Sieverts
UNESCO	United Nations Educational, Scientific and Cultural Organisation

Index

Index

Index

Index

Index

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Public information
ANSTO produces regular updates on its science and technology, has available a range of publications and conducts free tours of its site. For bookings, information or to get on our database, call +61 2 9717 3111 or email enquiries@ansto.gov.au

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