



Australian Government

**Australian Radiation Protection
and Nuclear Safety Agency**

**QUARTERLY REPORT
OF THE
CHIEF EXECUTIVE OFFICER
OF ARPANSA
FOR THE PERIOD 1 JULY 2007 TO 30 SEPTEMBER 2007**



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and Nuclear Safety Agency**

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If you would like to know more about the content of this publication please contact ARPANSA's Manager Policy and Security of Sources on 1800 022 333 or e-mail at info@arpansa.gov.au. Further information about ARPANSA can be found on the Agency's website at www.arpansa.gov.au.

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Letter of Transmittal

20 December 2007

Senator the Hon Jan McLucas
Parliamentary Secretary to the Minister
for Health and Ageing
Parliament House
Canberra ACT 2600

Dear Parliamentary Secretary

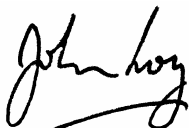
The *Australian Radiation Protection and Nuclear Safety Act 1998* (the Act) requires the Chief Executive Officer of the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) to submit to the Minister, at the end of each quarter, a report on:

- the operations during the quarter of the CEO, ARPANSA, the Radiation Health and Safety Advisory Council (the Council), the Nuclear Safety Committee (the NSC) and the Radiation Health Committee (the RHC);
- details of any direction given by the Minister to the CEO under Section 16 of the Act;
- any breach of licence conditions by a licensee, of which the CEO is aware;
- all reports received by the CEO from the Council and the NSC under paragraph 20(f) or 26(1)(d) of the Act; and
- a list of facilities licensed under Part 5 of the Act.

I am pleased to provide you with a report, meeting the requirements of the Act, covering the period 1 July 2007 to 1 September 2007.

As you would be aware, Section 60(6) of the Act requires you to cause a copy of the report to be laid before each House of the Parliament within 15 sitting days of the day on which this report was given to you.

Yours sincerely



John Loy
CEO of ARPANSA

Report on the operations of the CEO and ARPANSA

The report on the operations of the CEO and ARPANSA is based on the agency's three output groups:

- knowledge, information and services;
- national leadership in radiation protection and nuclear safety; and
- regulation.

Knowledge, information and services

Non-ionizing radiation

ULTRAVIOLET RADIATION (UVR)

ARPANSA UV measurement data has been further expanded and now provides real time data on the internet for Melbourne, Sydney, Darwin, Adelaide, Brisbane, Townsville and Newcastle, with Kingston outside Hobart to come on line in October. It is planned to add Perth and Alice Springs during the summer. A new spectral measurement system has been purchased to be used in Melbourne to regularly calibrate the UV detectors used in the Australia wide network. The spectral system has been setup and initial work has commenced. The establishment of a Memorandum of Understanding between ARPANSA and the Bureau of Meteorology (BOM) for the BOM to continue to host ARPANSA UV dataloggers at a number of its sites has progressed. ARPANSA staff attended the first Ozone Science Group committee, a joint meeting organized by the BOM, BMRC, CSIRO, AAD, DEW ARPANSA and the University of Melbourne. The committee discussed climate change and ozone trends over Antarctica and Australia, in order to improve Australia's contribution to global ozone science.

Initial drafts analysing the large amount of data collected in the collaborative international project examining the UVR exposures of parents, children and lifeguards while at swimming pools in the US in the summer of 2006 have been finalised. The project, with the University of Hawaii and Emory University in the US, is looking at validation of diary entries made by the subjects against independent measures such as UVR dose measured using UVR sensitive polysulphone film dosimeters and sunscreen swabs of the subjects skin to measure the presence of sunscreen. Two manuscripts, covering various aspects of behaviour, such as sun protection practices and awareness and their inter-relation with UVR exposure and sunscreen use have been submitted to journals for publication.

The possible regulation of solaria has recently become an issue in Australia. Subsequently the Standards Australia Committee on Solaria, of which ARPANSA is a member, met in Melbourne in September to re-examine the current standard and revise it as necessary. The ARPANSA and its Radiation Health Committee (RHC) have also contracted the Queensland Institute of Medical Research to undertake a rigorous health impact assessment on the effects of solaria. The report should be completed for the November RHC meeting and will be a key input into the discussion on possible regulation.

The study on measurements of the effectiveness of various species of trees in Australia in providing protection against solar UVR, done in collaboration with the Waite Institute of the University of Adelaide and the Cancer Council South Australia, has been posted on the internet site of the journal Photochemistry and Photobiology and will appear in the next printed issue.

The Ultraviolet Protection Factor (UPF) Testing Service at ARPANSA, which tests the ultraviolet radiation (UVR) protection provided by clothing, has undertaken a large international intercomparison of UPF testing with 14 different organisations: 4 from within Australia and 10 from overseas. The study, which commenced in July and will finish in October, is examining the instrument performance and measurement uncertainties. Analysis should be completed by early 2008 and a paper will be prepared for submission to a scientific journal. The UPF Testing Service has also redesigned the UPF swing tags. The messages on Sun Protection from the Australian Cancer Society and the New Zealand Cancer Society have been updated and additional ARPANSA related activities and information have been added. To date 37 million tags have been issued. The UPF Testing Service has also commenced issuing reports indicating the amount of UVR protection provided by shade cloth.

A hazard assessment of a UVR source was done for Melrose Health.

ARPANSA staff continued to participate in meetings of the newly formed Cancer Council Victoria Advisory Group on Outdoor Workers and Solar UVR, with a seminar/Open day planned in November.

Enquiries were received regarding solarium regulations, importing SPF 130 sunscreen from China, compact fluorescent lamps and the use of ARPANSA UVR computer models.

ELECTROMAGNETIC RADIATION (EMR)

EMR section staff continued to provide information to State and Australian Government agencies and to the public and media regarding EMR and health. The majority of enquires were in regard to possible health effects of magnetic fields from electricity distribution, particularly high-voltage transmission lines and sub-stations or transformers. Calls concerning mobile phone base stations were the next most numerous with calls concerning wireless devices, satellite dishes and household appliances being in the minority.

The measurements of 50 Hz magnetic fields in Melbourne homes as part of a residential survey have been completed. Measurements from inside 296 homes were obtained together with measurements in the street outside another 586. Detailed analysis of the results is underway.

An ARPANSA officer attended and chaired a meeting of the Standards Australia TE/7 committee (Human Exposure to Electromagnetic Fields) in Sydney on the 17 July.

A meeting of the working group preparing the standard on exposure on Extremely Low Frequency Electric and Magnetic fields was held at ARPANSA on 13 August. The meeting continued consideration of the public submissions received following the release of a draft for public consultation. Further meetings are planned.

ARPANSA scientific officers carried out investigations and measurements of radiofrequency (RF) and EMR levels in the vicinity of six mobile phone base stations in order to assist in planning for the survey of a small, selected, number of base stations throughout Australia. Measurements at two sites were carried out by National Association of Testing Authorities (NATA) registered consultants and contracts have been let for further measurements.

Medical radiation

PERSONAL RADIATION MONITORING SERVICE (PRMS)

The ARPANSA PRMS has continued to offer a comprehensive radiation monitoring service for persons who may be exposed to ionizing radiation as a consequence of their occupation. A service is also provided for the measurement of radon and natural background radiation levels.

The warranty period for the PRMS Application Development Project expired on August 27 and version 1.2 incorporating all warranty changes was installed on August 29. Negotiations are underway on a contract for maintenance of the software and a second procurement process covering enhancements to the software is in an initial scoping phase.

Further samples of the prototype of the new monitor holder to be used in the PRMS were received in July and underwent an extensive test program. A plan to address the remaining deficiencies was agreed at a meeting between representatives of the supplier and of the PRMS.

The PRMS received a visit from representatives of the current supplier of its main dosimetry equipment. Future options to replace or upgrade the current equipment were discussed and the supplier was afforded the opportunity of observing our current operations with a view to incorporating our needs in their current and future product line.

IONIZING RADIATION STANDARDS (IRS) – CALIBRATION SERVICES

In the therapy dosimetry audit program, 8 photon beams from 3 treatment centres have been audited. The results have been within the 3-5% criterion. A further two centres are scheduled for exposures in the 1-2 months and have been sent preliminary material. A centre in New Zealand is also likely to participate.

As previously noted, progress has been made towards refurbishing the therapy level Cobalt-60 source. In July, a meeting occurred with ANSTO to resolve issues of shipment of a third party source to Melbourne. A feasibility study is underway to resolve the condition of the appropriate transfer flask and its transport re-certification requirements.

On the research linac facility, CSIRO completed their feasibility study of the analysis of mineral samples by photo-activation. A total of 53 beam hours in July were spent on the project with the development of intense mega-voltage x-ray beams with well characterised spectra on the energy-analysed beam line. Dose rates of up to 10 Gy/min at 2 metres were achieved. Earlier in May (and June) the unanalysed electron

beam was used to produce more intense photon beams but the results were difficult to interpret.

Two of the dosimeters received for calibration showed signs of instability and the respective centres were notified. In one case a replacement was provided for calibration.

MEDICAL PHYSICS

A survey of radiation doses from Computed Tomography (CT) is continuing. A major aim of the survey is to measure the impact of new technologies and procedures on patient doses in CT.

RADIOPHARMACEUTICAL

A new Memorandum of Understanding (MoU) between ARPANSA and the Therapeutic Goods Administration (TGA) is currently being negotiated in relation to the testing and evaluation of radiopharmaceutical medicines for human therapeutic use.

Environmental Radiation

An ARPANSA officer in collaboration with an officer from Environmental Research Institute of the Supervising Scientist (eriss) successfully ran a training workshop (2nd Australian workshop on Radiochemical Techniques) in Darwin in August. This enabled ARPANSA's field measurement capabilities to be tested. A number of ARPANSA staff attended the training course/workshop and field trip. The training course focussed on the use of Liquid Scintillation Counting in Radiochemistry.

All gamma-detectors have been calibrated for 500 ml and 1 litre samples – necessary for NATA accreditation of food measurement services and essential for analyses following any accidental or malicious dispersal of radioactive materials.

The analysis of samples as part of a proficiency testing program ((tritium and gamma emitting radionuclides) was completed. All results were acceptable. The next samples to be analysed under this program will be for uranium and plutonium by alpha spectrometry.

The validation of methods for radon-222 and lead-210, uranium and strontium-90 in water is continuing. Development of methods for polonium-210 is continuing.

HEALTH PHYSICS

Monitoring and Surveillance Group

A program proposal was generated to establish a National Radiation Dose Register that will provide a single physical database framework to manage the permanent records of the radiological dose history of uranium industry and other related workers. This program would engage and consult with industry and the Commonwealth, States and Territories regulators to establish a uniform framework and a nationally agreed set of protocols to assess occupational doses to uranium workers. A continuous audit, validation and review program will provide tools to assess and evaluate dose estimate practices, and to improve practices and data quality.

An audit was conducted by DEST (Department of Education, Science & Training) to verify the completeness of all Lung Monitoring personal records collected from 1994 to 2001 related to the clean-up of the British Nuclear Weapons test site at Maralinga, South Australia. The records are stored and maintained at ARPANSA. Records for about 200 personnel and over 1000 lung monitoring results were supplied for the audit. The audit demonstrated that ARPANSA can provide on request the related personnel files for staff who participated in the Maralinga clean-up. The audit discovered that two personnel files were not made available. The audit recommended the relabelling of results to be correlated with personnel files, but suggested that this should be considered as part of the overall Maralinga record management planning.

The Health Physics Section provided comment and advice regarding the potential health impacts of a lost Ni-63 source (3.7×10^8 Bq) in a gas chromatograph. The Ni-63 source, considered as a sealed form, was not considered a health hazard under an accident or malicious use scenario.

The Radon Calibration Laboratory provided 13 radon-222 standard exposures for calibration of the ARPANSA radon dosimetry service (PRMS).

SERVICES

Statistics on the outputs of ARPANSA's Radioanalytical Services are at Appendix B.

Public communications activities

In the reporting period there were 166,428 visitors to the ARPANSA website. The most popular web pages were radiation and health information sheets. The most frequently downloaded single page was our factsheet about measuring magnetic fields http://www.arpansa.gov.au/pubs/factsheets/mag_fields.pdf.

Visitors downloaded 46,174 documents predominantly from the ARPANSA Radiation Protection series which can be found at <http://www.arpansa.gov.au/Publications/codes/rps.cfm> and the Radiation Health Series which can be found at <http://www.arpansa.gov.au/Publications/codes/rhs.cfm>.

National leadership in radiation protection and nuclear safety

Comprehensive Test Ban Treaty – air sampling monitoring systems

As part of Australia's commitment to the Comprehensive Nuclear-Test-Ban Treaty, ARPANSA continued to operate and maintain radionuclide air monitoring stations at Melbourne, Perth, Townsville, Darwin, and the Cocos Islands, Australia. The two remaining stations to be installed are located at Macquarie Island and Mawson, Antarctica.

ARPANSA had responded to a Request for Proposal from Comprehensive Nuclear-Test-Ban Treaty Organisation (CTBTO) for the installation of a radionuclide air monitoring stations on Macquarie Island. Several key issues are still to be resolved, and negotiations between ARPANSA and CTBTO are continuing.

Initially, due to the uncertainty surrounding the long term future of Mawson base, Davis station was considered as a possible alternative location. Consequently, in collaboration with Geoscience Australia (GA), ARPANSA and GA had responded to a request from the CTBTO for a contractor to carry out an infrastructure review and radiological measurements in Davis, Antarctica. Consequently, a Davis site survey report was prepared by ARPANSA and submitted to CTBTO in July 2007. Although this report was officially accepted by the CTBTO, they still preferred the Mawson site due to the installation cost for a Davis RN station. Consequently, discussions have recommenced with the Australian Antarctic Division for a Mawson installation.

In November 2006, the SAUNA II Noble Gas analysing system was installed in Darwin by Gammadat Instruments AB, which forms part of the CTBT International Monitoring System. ARPANSA has submitted to CTBTO a budget for the testing and evaluation of Phase III of the Noble Gas experiment. A contract for this activity is still to be negotiated.

In addition to operating the stations, ARPANSA also operates the Australian Radionuclide Laboratory, which has the role of testing samples obtained by other monitoring stations. The Laboratory was formally certified by the CTBTO in December 2006. A contract for the provision of ongoing RN Laboratory services has been finalised.

ARPANSA continues to maintain a National Data Centre that provides advice to the Australian Safeguards and Non-Proliferation Office (ASNO) on any event detected by the CTBT radionuclide network that may be indicative of a nuclear weapon test explosion. ARPANSA is in the process of negotiating an MOU with ASNO with regard to the provision of limited NDC services that are both timely and effective.

National Uniformity

The Regulatory Impact Statement on the 2nd edition of the National Directory was reviewed by the Office of Best Practice Regulation (OBPR) in August. OBPR advised that additional analysis was required particularly in relation to the sections on lasers and intense pulsed light sources (IPL), before the RIS could be cleared for public consultation.

Radiation Emergency Planning

RADIATION EMERGENCY OPERATIONS GROUP

The ARPANSA Radiation Emergency Operations Unit (REOU) provided training workshop to visiting fellows from Thailand on Emergency Preparedness and Counter Terrorism activities as part of the ARPANSA input to the project on *Nuclear and Radiological Security Enhancement for Asia and the Pacific*.

The REOU conducted specialist training for the Melbourne and Metropolitan Fire Brigade's Hazardous Materials Technicians Course at the Yallambie site.

The REOU conducted activities in support of Australian Federal Police and NSW Police during APEC Leaders Week Meetings.

EMERGENCY PREPAREDNESS

ARPANSA provided End User advice to the Chemical, Biological, Radiological and Nuclear Working Group Publicly Funded Research Agencies Committee on Counter Terrorism (PACCT) for future R & D projects of interest to end user communities. The outputs of this meeting provided research agencies with an insight of research themes or topics of interest to end user and response agencies.

During the IAEA Integrated Regulatory Review Service (IRRS) mission, ARPANSA provided briefings and capability demonstration to an IRRS expert on emergency preparedness.

In July, an ARPANSA officer attended the meeting of Representatives of the National Competent Authorities for the Notification and Assistance Conventions at the IAEA in Vienna. ARPANSA is the designated Competent Authority for Radiation Emergencies (NCA) for Australia. The meeting reviewed the progress achieved in implementation of the *International Action Plan for Strengthening the International Preparedness and Response System for Nuclear and Radiological Emergencies*.

In July 2007, as part of the ARPANSA Regional Project on Strengthening Regional Radiological Emergency Response, an ARPANSA officer participated in the IAEA Regional Coordination Meeting on the Establishment of National Capabilities for Response to Radiological and Nuclear Emergencies. The purpose of the meeting was to review and develop country-specific action plans to strengthen planning and response to a radiological and/or nuclear emergency in each of the 24 participating countries within the Asian region.

The software system, ARGOS (Accident Reporting and Guidance Operational System) is a decision support system for Chemical, Biological, Radiological and Nuclear (CBRN) emergencies. ARPANSA is coordinating a national project to evaluate the suitability ARGOS for Australian CBRN emergency planning. ARPANSA has installed and is testing the ARGOS software on its own servers and on other selected sites. In August, the Section provided a preliminary report on the application to Australian Nuclear Powered Warship (NPW) visit planning for at the biennial NPW Seminar.

International Activities

The Manager of the Electromagnetic Radiation Section attended, as an observer, a meeting of the New Zealand Ministry of Health Interagency Meeting on Health Effects of Electromagnetic Fields in Wellington on 19th September.

The CEO of ARPANSA attended the 50th General Conference of the IAEA from 17-21 September. During the General Conference, he also took part in a senior regulators' meeting where he reported on the Integrated Regulatory Review Service (IRRS) mission to the Commonwealth of Australia (discussed in the June 2007 Quarterly Report). Subsequently, the CEO visited Spain for the preparatory visit for the IRRS mission to that country in January – February 2008. The CEO is the deputy team leader for the mission.

Regulation

Regulation of the Commonwealth's uses of radioactive material, apparatus and facilities

The CEO of ARPANSA is responsible for regulating all radiation and nuclear activities undertaken by Australian Government entities and contractors who undertake such activities for or on behalf of Australian Government entities (Commonwealth contractors).

ARPANSA staff assist the CEO to implement the regulatory scheme set out in the ARPANS legislation in particular by providing assessments and advice in connection with applications for source and facility licences under the ARPANS Act, including whether or not a licence should be issued, authorising dealings with radiation sources and conduct undertaken in relation to facilities, both prescribed radiation facilities and nuclear installations.

Monitoring compliance with the ARPANS legislative scheme for regulation, including by undertaking inspections and providing advice to the CEO on findings of breach of the Act and any subsequent recommendation as to enforcement action, is a major output of ARPANSA. Compliance monitoring includes the review of compliance reports submitted by licence holders.

Inspections for compliance monitoring

ARPANSA continues an active program of inspections to determine compliance with licences issued under the *ARPANS Act 1998*.

Inspections of nuclear safety focused on:

- OPAL research reactor (FO 0157)
- HIFAR (Hi-flux Australian Reactor)
- ANSTO Radiopharmaceutical Industries, Radiopharmaceutical Manufacturing Facility (Building 23A)

ARPANSA Response to the ANAO Audit No 30: Regulation of Commonwealth Radiation and Nuclear Activities

REGULATORY AND POLICY BRANCH BUSINESS PLAN AND MONITORING OF KEY PERFORMANCE INDICATORS (KPI)

The Regulatory and Policy Branch Business plan for the year 2007/2008 was prepared collaboratively by all Branch staff at planning days on 30 and 31 January 2007.

The planning process involved initially describing the regulatory role and vision in the context of ARPANSA's total role and 2005-2008 Corporate Plan. Regulatory values were then prepared to enable agreement on some important principles to work to.

In consideration of the objectives of the Corporate Plan and the interests of the stakeholders, key regulatory initiatives were then developed for 2007-2008 to

encapsulate the important tasks for the financial year. Achievement of these initiatives will result in the completion of key projects, will significantly improve the regulatory processes and address the remaining tasks arising out of the 2004-2005 ANAO audit report on the Regulation of the Commonwealth Nuclear and Radiation Activities.

The main regulatory objectives were then prepared for the Branch from the Corporate Plan. Various categories of action were identified and associated targets were developed. These targets set specific goals in key areas in relation to each objective and provide a means to monitor and measure performance. As well as providing a useful management tool, these measures also enable ready demonstration of achievements.

The Regulatory and Policy Branch Business Plan for 2007/2008, described above, is at Annex C.

THE NEW REGULATORY INFORMATION MANAGEMENT SYSTEM

A regulatory information management system has been developed and has been operational since 1 July 2007. It uses the records management software TRIM 6 and it is a key tool to assist the achievement of the objectives of the Business Plan.

The software provides an effective and accredited means of managing and recording regulatory documents and information and managing and monitoring of regulatory processes. It includes a means of real time work tracking and control and monitoring and reporting of the key performance indicators of the regulatory functions.

It is a key system for the management and monitoring of ARPANSA's regulatory processes and it will assist in meeting the performance measures of ARPANSA's Corporate Plan and in detail, those of the Regulatory and Policy Branch Business Plan.

With the assistance of consultants, the system was installed in mid-June 2007 and was fully operational according to target by 1 July 2007.

The consultants provided the initial configuration of the software including a number of key regulatory workflow processes and a structure which would allow the collection of relevant data for the monitoring of performance against the KPI's in the Branch Business Plan. They also provided training for the staff at various levels as required. This provided sufficient knowledge and skills for all staff to effectively use the software and for certain staff to progressively develop and expand the configuration as required.

The software has been well accepted and utilised by staff largely due to the fact that it was configured specifically according to the needs of the Branch, its structure was kept as simple and as easy to use as possible and the introductory training was well conducted and well received.

In the intervening period much work has already been done on further configuring the system in light of the experience to date with its use and continual operational assistance has been provided to staff.

The following statistics indicate the degree of use so far in the quarter.

The numbers of records created in the quarter since introduction, by up to 20 staff are:-

| | |
|----------------|--------|
| July 2007 | - 1025 |
| August 2007 | - 894 |
| September 2007 | - 711 |

In summary, the software provides for the following functions within the Branch:-

- Records management
- Workflow management
- Data collection to monitor compliance with KPI's
- Collaborative working
- Customer relationship management
- Assistance with procedural/quality compliance
- Support for project management and meeting of timeliness targets

The September 2007 quarter progress against the KPI's has been extracted from the system as follows.

PROGRESS AGAINST KPI'S – 1 July 2007 to 30 September 2007

| Measure | Activity | Annual Target |
|---|----------|---------------|
| Effectiveness | | |
| 1. Accidents that must be reported within 24hours | 0 | < 5 |
| 2 Incidents | 12 | < 40 |
| 3. Percentage incidents reported by licence holders | 100% | > 80% |
| 4. Non-compliances | 0 | < 40 |
| 5. Percentage non-compliances reported by licence holders | Note a | > 80% |
| 6. Applications for Licence | 3 | - |
| 7. Percentage licence applications accepted as valid | 100% | > 80% |
| 8. Percentage assessment reports for applications for licence | 100% | 100% |
| 9. Percentage correct decisions for licence applications | 100% | 100% |
| 10. Requests for Approval (Regs 51,53,54,55) | 10 | - |
| 11. Assessment Reports | 6 | - |
| 12. Percentage positive decisions for requests for approval | 100% | >80% |

| Measure | Activity | Annual Target |
|---|-----------------|--|
| 13. Inspection Reports | 9 | > 80 |
| 14. Licence Holder Compliance Reports | 86 | - |
| 15. Percentage licence Holder Compliance Reports received on or before due date | 53% | > 80% |
| Efficiency | | |
| 16. Percentage of ministerial responses meet target date set in agreement with Department | 100% | > 80% |
| 17. Number of inspection and assessment reports per staff member | 1 | > 10 |
| 18. Expenditure/budget | < 100% | < 100% |
| 19. Revenue/budget | Note b | 100% |
| 20. Percentage staff training completed (%) | >80% | > 80% |
| 21. Time to provide requested information to stakeholders | Note b | < 30 days |
| 22. Time to report inspections | 38 days | < 30 days |
| 23. Time to review Licence Holder Reports | Note b | < 30 days |
| 24. Time to review Applications for Licence | Note c | < 60 days |
| 25. Time to review requests for approval (Regs 53, 54, 55) | 22 days | < 30 days |
| 26. Time to review requests for approval (Reg 51) | 55 days | < 60 days |
| 27. Time to complete investigation of incidents/accidents | Note b | < 60 days |
| 28. Time to complete investigation of non-compliances | Note a | < 60 days |
| Stakeholder Satisfaction | | |
| 29. Satisfaction Surveys | Note d | > 80% satisfied with services provided |
| 30. Complaints | 0 | < 20 |
| 31. Compliments/commendations | 0 | > 5 |

| Measure | Activity | Annual Target |
|--|-----------------|----------------------|
| 32. Reports to ARPANSA Executive as planned | 1 | 100% |
| Enforcement | | |
| 33. Educational and awareness information sessions and short presentations for licence holders | 0 | > 3 |
| 34. Corrective measures | 0 | > 40 |
| 35. Formal Directions | 0 | > 0 |
| 36. Percentage suspensions and cancellation of licences | 0 | > 0% |

Notes

- a. No non-compliances were officially determined during the September 2007 quarter.
- b. Regulatory Processes being further developed to capture these measures.
- c. There are applications in progress but none were finalised during the September 2007 quarter.
- d. No surveys were carried out during the September 2007 quarter. A survey is planned for June 2008.

The annual targets were derived based by estimation only. They will be progressively refined over time as actual data is collected and trends can be determined.

Details of Regulatory Activities

Further details of regulatory activities including a list of all licensed facilities, installations and sources are at Annex A.

Report on the operations of the Radiation Health and Safety Advisory Council, the Radiation Health Committee and the Nuclear Safety Committee

Radiation Health and Safety Advisory Council

The Council met on 3 August in Brisbane, and on 2 August undertook a tour and had briefings at the Royal Brisbane and Womens Hospital nuclear medicine and security departments. A summary of Council's meeting is available on the ARPANSA web site at <http://www.arpansa.gov.au/AboutUs/Committees/rhsacmt.cfm>.

The main issues discussed at the meeting were:

- a request from the CEO for Council to provide high level advice and discussion on the assessment of safety of nuclear power plants. Dr Sam Harbison, former Chief Nuclear Inspector in the UK, and current member of INSAG, joined the meeting by teleconference. Dr Harbison had been contracted to assist Council with this task. Council agreed to undertake the project aiming for a final draft at the December 2007 Council meeting.
- the report of the Review Meeting of the Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management as background for a proposed review next year by Council of this subject area.
- the application by ANSTO for a licence to possess and control HIFAR, and the circumstances relating to the 8-week shutdown of the OPAL Reactor.
- a Workplan for the review of the Efficiency and Effectiveness of the National Directory for Radiation Protection, edition 1.
- current issues and directions in radiation protection in Queensland. Mr Paul Carroll, Senior Director Radiology Support, Clinical and Statewide Division, Queensland Health, gave a presentation on the radiology reform project being undertaken in Queensland.

Other matters considered were:

- reports from the CEO on ARPANSA activities and Committee Reports.
- a briefing on the IAEA Integrated Regulatory Review Service review of ARPANSA's regulatory functions.
- recent international developments, including the IAEA revision of the Basic Safety Standards and finalising of ICRP's new recommendations.

Radiation Health Committee

The Committee met on 18 and 19 July 2007 at ARPANSA's Yallambie offices. A summary of the meeting is available at http://www.arpansa.gov.au/rhc_mt.htm.

At the meeting the following matters were considered:

- the draft regulatory impact statement (RIS) on Edition 2 of the National Directory for Radiation Protection (NDRP), which had been sent to the Office of Best

Practice Regulation. The Radiation Health and Safety Advisory Council had agreed at its April 2007 meeting to undertake a review of the effectiveness and efficiency of NDRP Edition 1. A paper was to be prepared for the next meeting reviewing the structure and criteria for additions to future editions of the NDRP, defining the issues and problems in the current environment, and identifying a process for development of the NDRP.

- a revised draft of the Code of Practice for Radiation Protection in the Medical Applications of Ionizing Radiation, in which responses to the main issues raised in the submissions had been incorporated. The Committee noted that a few submissions remain to be reviewed. The Committee discussed the process to finalise the Code and the accompanying Safety Guides.
- a paper on solaria, which had been revised following discussion at the October 2006 meeting to include additional information. The Committee asked for the data to be reviewed and verified by epidemiologists with expertise in the area for the November 2007 meeting. The Committee proposed that a national forum on the regulation of solaria be organised and held before the end of the year.
- a document development plan (DDP) proposing that a safety guide for the use of radiation in schools be developed as an ARPANSA Radiation Protection Series publication. The proposed publication would combine the subject matter of RHS 19, *Code of Practice for the Safe Use of Ionizing Radiation in Secondary Schools (1986)*, with that of RHS 36, *Code of Practice for the Safe use of Lasers in Schools (1995)*.
- a document development plan (DDP) proposing that a safety guide containing examples and schedules to assist stakeholders in meeting the requirements of the *Code of Practice for the Safe Transport of Radioactive Material (2001)* (ARPANSA RPS 2) be developed as an ARPANSA Radiation Protection Series publication. The Committee approved the DDP for the draft Transport Safety Guide.
- a draft RHC Statement on *The Application of the Occupational Exposure Limits for First Responders in Emergencies Involving Radiation*. The Statement had been prepared in response to a letter requesting the RHC's interpretation of the meaning of "radiation occupational exposure" and the application of the occupational exposure limits, particularly in the case of first responders in emergencies. The Committee requested that the draft RHC Statement be finalised and then put on ARPANSA's web site.

Other matters considered by the Committee at the meeting were:

- meeting reports on the activities of the Radiation Health and Safety Advisory Council, Nuclear Safety Committee, and IAEA Safety Standards Committees.
- an update on the progress of the draft Radiation Protection Standard for Exposure Limits to Electric and Magnetic Fields 0 Hz - 3 kHz. The Committee noted that a public consultation period had been held, that 64 submissions had been received and were being reviewed by the Working Group, and that this work would continue over several months. The Committee supported the changes proposed at this stage by the Working Group.

- that additional information was needed from some jurisdictions on their current radium waste holdings in order to facilitate the development of a national management strategy.
- that the development of a national radiation dose register for uranium industry workers had been recommended in a House of Representatives Standing Committee report (Prosser Report). The Committee was advised that a safety guide for internal dose assessments also needs to be prepared.
- that Naturally Occurring Radioactive Material (NORM) was being detected by scrap metal yards/dealers. The Committee requested that regulator members provide collated information on the radioactive material detected by scrap metal yards/dealers within their jurisdiction.
- progress reports on other draft publications in preparation.

Nuclear Safety Committee

The Nuclear Safety Committee did not meet during the quarter. The next Committee meeting is scheduled for 26 October 2007.

Reports required by subsections 60 (2)-(5) of the Act

Details of directions given by the Minister under Section 16

No directions were given by the Minister under Section 16 of the Act during the quarter.

Details of any breach of licence conditions by a licensee during the quarter, of which the CEO is aware

Breaches determined by the CEO

There were no breaches of licence conditions determined by the CEO of ARPANSA during the quarter:

Exemptions

The CEO has the power pursuant to both 30(1)(b) and 31(1)(b) of the ARPANS Act to exempt a controlled person from the requirement for licensing in relation to both source and facility licences. There were no exemption decisions made during the quarter.

Reports to the CEO from the RHSAC and NSC (paragraphs 20(f) and 26(1)(d) of the Act)

The CEO did not receive any reports from the Radiation Health and Safety Advisory Council or the Nuclear Safety Committee.

A list of all facilities licensed under Part 5 of the ARPANS Act

There were no facility licences issued during the quarter. A list of all licence applications received during the quarter as well as any licences issued, amended or surrendered during the quarter is included in Appendix A.

Annex A – Regulatory Operations

Nuclear Installations

OPAL Research Reactor – Operating Licence (F0157)

The OPAL reactor remains in the hot commissioning phase under the facility licence authorising ANSTO to operate the OPAL reactor.

SAFETY SUBMISSIONS

Safety Submissions under ARPANS Regulation 51

| Safety Submission | Title | Date Submitted | Status |
|-------------------|--|----------------|----------------------|
| E0008 | Change to OLC 3.6.3 on Rig Reactivity Worth for fixed Rig | 28/11/06 | Withdrawn 26/07/07 |
| E0010 | Irradiation of Uranium Plates in OPAL | 15/01/07 | Withdrawn 03/08/07 |
| E0026 | Software Change to FRPS Enable / Disable Logic | 09/03/07 | Approved 06/09/07 |
| E0033 | OPAL DNAA Irradiated Target Storage Station (ITSS) | 03/07/07 | Under Assessment (*) |
| E0067 | Cycle 006 to 009 Core Configuration Change | 12/07/07 | Withdrawn 24/07/07 |
| E0074 | Removal of OPAL Fuel Assemblies with Displaced Fuel Plates | 10/08/07 | Approved 15/08/07 |
| E0074 Amendment | Removal of OPAL Fuel Assemblies with Displaced Fuel Plates | 24/08/07 | Approved 29/08/07 |

(*): Questions put to ANSTO on 27/09/07. Awaiting ANSTO response

Safety Submissions under ARPANS Regulation 52

| Safety Submission | Title | Date Submitted | Status |
|-------------------|---|---|--|
| E0064 | <u>Repairs to Reflector Vessel Defects:</u> * Leak Testing Procedure, * Reflector Vessel Leak Rectification | * 17/08/07 (leak testing Procedure) * 05/09/07 (Reflector Vessel leak Rectification) | * Approved 30/08/07 * Approved 19/09/07 |

INSPECTIONS

Four inspections were undertaken during the quarter. These are listed below:

| Date of Inspection | Type | Scope of Inspection |
|---------------------------|-------------|--|
| 03/09/07 | Announced | Reactor Support Group / Reactor Assessment Committee |
| 20/08/07 | Unannounced | Main Control Room Log Books |
| 23/10/07 | Unannounced | Main Control Room Log Books |
| 25/10/07 | Unannounced | Main Control Room Log Books |

REPORTING OF INCIDENTS / ACCIDENTS

On 25 July 2007, ANSTO reported to ARPANSA that during a routine video inspection of fuel assemblies undertaken the day before they detected a displaced fuel plate in one of the 16 fuel assemblies present in the OPAL core.

Subsequent investigations have established that 7 fuel assemblies have been affected by the same problem. A total of 13 fuel plates were found to be displaced. The most significant displacement measured was found to be equal to 530 mm which corresponds to some 80 % of the total length of a fuel plate.

Since the initial reporting, the OPAL reactor has remained shutdown awaiting the outcomes of the investigation of the problem by ANSTO, INVAP (the OPAL Designer) and CNEA of Argentina (the manufacturer of the fuel assemblies affected by the problem).

Regarding the rating of the OPAL event against international reporting practices for incident and accident at Nuclear Installations, the International Atomic Energy Agency (IAEA) and the Organisation for Economic Co-operation and Development (OECD) have a system for reporting such events. The International Nuclear Event Scale (INES) is effective in disseminating information on incidents and accidents worldwide in the interests of global nuclear and radiation safety. The scale ranges from Level 0 (Deviation) to Level 7 (Major Accident, e.g. Chernobyl). ARPANSA conducted a systematic assessment against INES criteria and made a preliminary determination that the event that occurred at OPAL should be rated at Level 2 (Incident). The INES Level 2 designation was found to be effective at raising the profile of this incident amongst global nuclear operators and regulators, many of whom use fuel designs with similarities to the OPAL fuel.

During this quarter, ANSTO have held a number of briefings regarding the fuel issue with ARPANSA. These have served to outline the scope of ANSTO's investigation into this incident. Although little detail has been provided to date by ANSTO, ARPANSA have maintained an oversight of the fuel issue and have outlined regulatory expectations of any submissions associated to resolve it.

During the quarter two submissions under Regulation 51 were received and approved regarding the movement of faulty fuel assemblies from the reactor core to the spent fuel storage facility. It is expected in a near future that ANSTO will submit a request

for approval under ARPANS Regulation 51 leading to resumption of power operations.

HIFAR RESEARCH REACTOR (FO0044-4A)

Application for a facility licence authorising possession or control of HIFAR

Following the submission during the previous quarter of an application for a Possess or Control licence for HIFAR, ARPANSA officers have undertaken an assessment of the documentation supporting the application.

Based on the outcomes of this assessment and on advice received from the Nuclear Safety Committee on this specific matter, the CEO wrote to ANSTO on 20 September 2007 to request further information and clarification. In particular, the CEO sought further information and clarification on the following matters:

- the scope of activities to be undertaken under the facility licence to “possess or control” HIFAR taking into account the distinction between “possess or control” and “decommissioning”,
- the descriptions of the projects of the proposed activities to be carried out under the facility licence, including proposals for radiological characterization of HIFAR,
- the plans and arrangements for managing safety of the facility,
- the safety analysis report, especially analysis supporting the selection of the reference accident,
- the notification level for discharges of tritium.

Licence applications received during the quarter:

| Type of application | From |
|--------------------------------------|-------------------------------|
| Facility Licence Application (A0187) | Australian Customs Service |
| Source Licence Application (A0188) | Attorney-General’s Department |
| Source Licence Application (A0189) | Attorney-General’s Department |

Annex B – Service Operations

B.1 The Radiofrequency Calibration Laboratory

| Calibration Requests | Jobs completed as NATA accredited reports | Job composition |
|----------------------|---|--|
| 97 | 90 | 77 monitors (with 24 people) 24 personal monitors |

B.2 Ultraviolet Protection Factor Testing, Licensing and Labelling

| Job requests | Fabric samples tested | UPF trademark licenses completed | UPF swing tags issued | Pairs of sunglasses tested |
|--------------|-----------------------|----------------------------------|-----------------------|----------------------------|
| 147 | 475 | 23 | 2 161 500 | 1 |

B.3 Radioanalytical Service

| Water | Food | Soil/Sediment | Filter | Wipe test |
|-------|------|---------------|--------|-----------|
| 260 | 19 | 19 | 67 | 5 |

| Maypacks | Biota | Other |
|----------|-------|-------|
| 0 | 0 | 6 |

B.4 Dosimetry Calibration Services

| Therapy reference dosimeters | Standard ionization chambers | Electrometers | Gamma survey meters | Neutron survey meters | Personal dosimeters | Reference beams from sources or generators | Jobs in progress |
|------------------------------|------------------------------|---------------|---------------------|-----------------------|---------------------|--|------------------|
| 9 | 1 | 3 | 4 | - | - | - | 2 |

B.5 Import Permits issued under Customs (Prohibited Import) Regulations 1956 – Medical Radioisotopes

| Total permits issued | Single-shipment permits issued | 12-monthly permits issued | Permits issued urgently |
|----------------------|--------------------------------|---------------------------|-------------------------|
| 189 | 170 | 15 | 4 |

B.6 Import Permits issued under Customs (Prohibited Import) Regulations 1956 – Non- Medical Radioisotopes

| Total permits issued | Single-shipment permits issued | 12-monthly permits issued | Permits issued urgently |
|----------------------|--------------------------------|---------------------------|-------------------------|
| 147 | 45 | 5 | 97 |

B.7 Export Permits under Customs (Prohibited Export) Regulations 1958

| | |
|----------------------|---|
| Total Permits Issued | 1 |
|----------------------|---|

Annex C – Regulatory and Policy Branch Business Plan for 2007/2008

Our Role

The object of the *Australian Radiation Protection and Nuclear Safety Act 1998* is to protect the health and safety of people and to protect the environment from the harmful effects of radiation.

ARPANSA regulates the Australian Government and its contractors' uses of radiation sources and facilities and nuclear installations.

ARPANSA is an Australian Government agency that is part of the Health and Ageing Portfolio. ARPANSA contributes to '*Outcome 1: Population Health*' of the Health and Ageing Portfolio.

ARPANSA Regulatory staff assist the CEO of ARPANSA achieve Outcome 1: The Australian population and the environment is protected from the harmful effects of radiation by contributing to the outputs identified in the ARPANSA Corporate Plan 2005-2008:

Output Group 1- National Leadership in radiation protection and nuclear safety;

Output Group 2 - Knowledge information and services relating to radiation protection and nuclear safety; and

Output Group 3 - Regulation of Commonwealth entities using radiation sources and facilities or nuclear installations.

(Note: Output Group 1 is taken to include security of radioactive sources.)

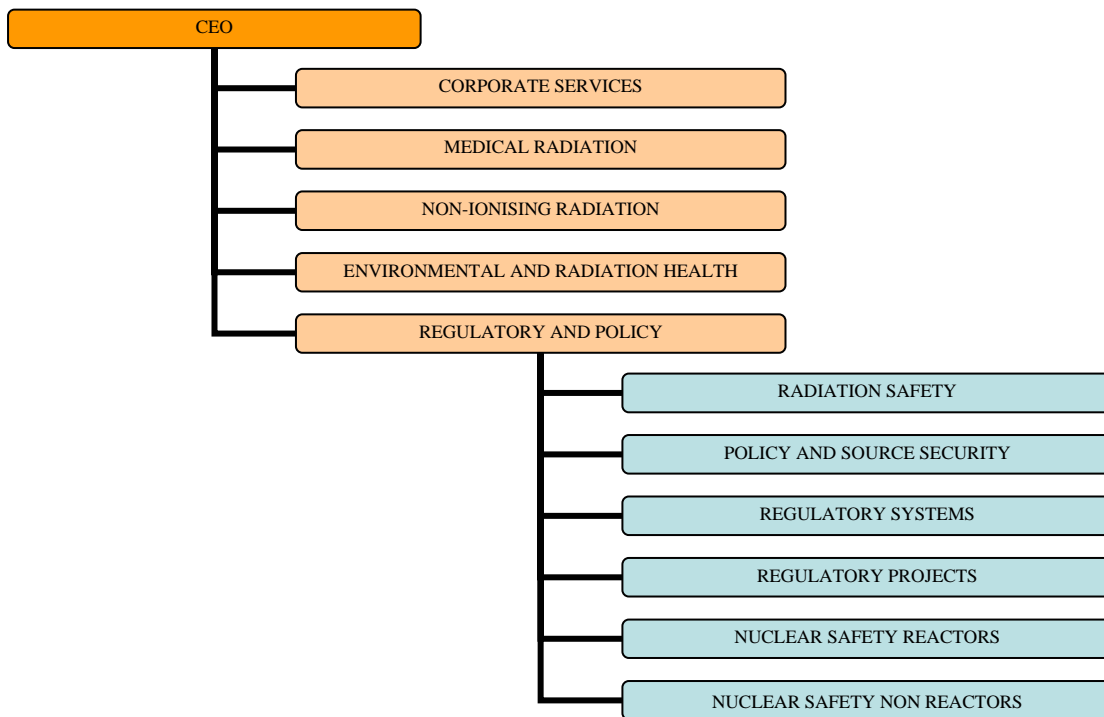
Our Vision

To provide for the safety of people and the environment by developing and administering regulatory processes to assure the safe use of radiation sources and safe operation of both prescribed radiation facilities and nuclear installations.

To also reduce the risk of high activity radioactive sources being used in a malicious event by developing a uniform national regulatory framework for security of such sources and providing support and advice to jurisdictions in implementing the regulatory framework.

Our Organisation

Following is an organisation chart which shows the functional titles of each branch of ARPANSA and of each functional group of the Regulatory and Policy Branch.



Our Values

Nuclear Safety and Radiation Protection

- We are committed to establishing through regulation the conditions for safe operation of facilities and sources within our regulated community and advancing the protection of the health and safety of people and the environment from the harmful effects of radiation.
- We are committed to identifying and applying international best practice in radiation protection and nuclear safety.

Security of High Activity Radioactive Sources:

- We are committed to developing and retaining suitable security expertise in order to support implementation of the national source security regulatory framework.
- We are committed to consulting with stakeholders in relation to implementation of recommendations of the COAG report on the security regulation of radioactive material.

Corporate Governance

- We will ensure that all regulatory advice is lawful, clear and consistent and based on the best available evidence.
- We are accountable to the Australian public and their representatives in the performance of our role.
- Our role is independent and we must manage any actual or perceived conflict of interest in the performance of that role.
- We will build community and stakeholder confidence in ARPANSA

Organisational Competency

- We are committed to achieving and maintaining the highest standards of professionalism.
- We are committed to continuous improvement in the performance of our role.
- We are committed to identifying and applying international best practice.

Corporate Plan Objectives

- Following are the regulatory policy objectives from the Corporate Plan. These set a number of specific strategies which are intended to assist our regulatory processes to achieve our mission of public safety and environmental protection. Associated quantitative and qualitative targets are listed in Appendix (1) which will enable performance against these objectives to be monitored and measured.
 - Objective (1) Establishing and publishing clear regulatory requirements and monitoring and enforcing compliance.

- Objective (2) Making independent, objective and informed regulatory decisions on a consistent basis.
- Objective (3) Operating in a cost-effective manner, basing regulatory action on level of risk to people and the environment.
- Objective (4) Working in a transparent manner with strong accountability to the Australian Government, parliament and public.

Stakeholders

Following is a list of some of our stakeholders, being examples of those who have an interest in or are affected by our activities

- Minister
- Parliament
- Commonwealth Government Departments and Agencies
 - Australian Federal Police
 - Australian Customs Service
 - Australian Maritime Safety Authority
 - Australian Nuclear Science and Technology Organisation
 - Australian Quarantine and Inspection Service
 - Australian Security Intelligence Organisation
 - Australian Safeguards and Non-Proliferation Office
 - Civil Aviation Safety Authority
 - Commonwealth Scientific and Industrial Research Organisation
 - Comcare
 - Department of Transport and Regional Services
 - Department of Health and Ageing
 - Department of Foreign Affairs and Trade
 - Department of Environment and Water Resources
 - Department of Education Science and Training
 - Department of Defence and Australian Defence Force
 - Department of Immigration and Citizenship
 - Emergency Management Australia
 - Visiting Ships Panel (Nuclear)
- State and Territory Government Departments and Agencies
 - ACT Health
 - Department of Environment and Conservation (NSW)
 - Department of Health and Community Services (NT)
 - Department of Health and Human Services (TAS)
 - Department of Human Services (VIC)
 - Environment Protection Agency (SA)
 - Queensland Health
 - Radiological Council (WA)

- State Emergency Services (Police, Fire, Ambulance, SES)
- Radiation Service Providers
- General Public
- Peak Bodies
 - International Atomic Energy Agency
 - International Commission on Radiological Protection
 - Organisation for Economic Cooperation & Development
 - World Health Organisation
- Media outlets/networks
- Licence Holder Contractors
- Community Groups
 - Australian Conservation Foundation
 - Friends of the Earth
 - Greenpeace
 - Sydney People Against a New Nuclear Reactor

Key Initiatives

Governance and organisational development

- Develop a revised organisational risk plan for regulation
- Prepare risk profiles of controlled persons
- Develop principles of risk informed regulation in consultation with stakeholders
- Finalise new Branch organisation.
- Refine the new regulatory management information system.
- Prepare a staff skills inventory, benchmark with other relevant organisations to further improve staff training and development
- Complete the IRRS review of ARPANSA

Stakeholder communication

- Develop and conduct further communication processes with stakeholders
- Revise existing regulatory guidance and seek stakeholder feedback on the revised application packs.
- Develop improved processes to extend the knowledge of licence applicants and holders with information sessions, forums, the new website and guidance packages
- Refine the ARPANSA website with an improved regulatory component which includes a suite of revised guidance documents

Recovery of regulatory costs

- Seek stakeholder comment on the policy for recovery of regulatory costs
- Implement the underpinning strategies for transparently demonstrating the cost of carrying out the regulatory function including a suitable activity cost model (in consultation with Finance)

Compliance

- Develop a proportionate, effective, stepped and comprehensive compliance and enforcement strategy.

Government Policy

- Undertake preparations for 4th Review Meeting of the Convention on Nuclear Safety and participate in the Review Meeting
- Participate in whole-of-government implementation of the Convention for the Suppression of the Acts of Nuclear Terrorism
- Participate in the development and implementation of the government strategy for involvement in the nuclear fuel cycle

- Participate in the development of the government response to the report of the House of Representatives Standing Committee on Industry and Resources inquiry into developing Australia's non-fossil fuel energy industry
- Participate in the development of national health security legislation

Security

- Undertake preparations for and participate in the IAEA meeting to exchange information on implementing the Code of Conduct on the Safety and Security of Radioactive Sources
- Develop a national high activity sealed source register
- Implement recommendations in COAG report on security regulation of radioactive sources
- Establish a program for the performance testing of security enhancements specified in guidance to the Code of Practice for the Security of Radioactive Sources

Appendix 1 – Measures and Targets

| Measure | Activity [#] | Target ⁺ |
|---|-----------------------|---------------------|
| Effectiveness | | |
| Accidents that must be reported within 24hours | 0 | < 5 |
| Incidents | 40 | < 40 |
| Percentage incidents reported by licence holders | 80% | > 80% |
| Non-compliances identified | 40 | < 40 |
| Percentage non-compliances reported by licence holders | 80% | > 80% |
| Applications for Licence | 10 | - |
| Percentage licence applications accepted as valid | 100% | > 80% |
| Percentage assessment reports for applications for licence | 100% | 100% |
| Percentage correct decisions for licence applications | 100% | 100% |
| Requests for approval (Regs 51,53,54,55) | 150 | - |
| Assessment Reports for requests for approval | 30 | - |
| Percentage positive decisions for requests for approval | 80% | >80% |
| Planned and reactive Inspection Reports | 80 | > 80 |
| Licence Holder Compliance Reports | 200 | - |
| Percentage licence Holder Compliance Reports received on or before due date | 80% | > 80% |
| Efficiency | | |
| Percentage of ministerial responses meet target date set in agreement with Department | 80% | > 80% |
| Number of inspection and assessment reports per staff member | 10 | > 10 |
| Expenditure/budget | 100% | < 100% |
| Revenue/budget | 100% | 100% |
| Percentage staff training completed (%) | 80% | > 80% |
| Time to provide requested information to stakeholders | 30 days | < 30 days |
| Time to report inspections | 30 days | < 30 days |
| Time to review Licence Holder Reports | 30 days | < 30 days |
| Time to review Applications | 60 days | < 60 days |

| Measure | Activity[#] | Target⁺ |
|--|--------------------------------------|--|
| Time to review requests for approval | 30 days | < 30 days |
| Time to complete investigation of incidents/accidents | 60 days | < 60 days |
| Time to complete investigation of non-compliances | 60 days | < 60 days |
| Stakeholder Satisfaction | | |
| Satisfaction Surveys | 60% satisfied with services provided | > 80% satisfied with services provided |
| Complaints | 5 | < 20 |
| Compliments/commendations | 1 | > 5 |
| Reports to ARPANSA Executive as planned | 100% | 100% |
| Enforcement | | |
| Educational and awareness information sessions and short presentations for licence holders | 2 | > 3 |
| Corrective measures | 40 | > 40 |
| Formal Directions | 0 | > 0 |
| Percentage suspensions and cancellation of licences | 0% | > 0% |

Notes: # Activity values are measured from the preceding financial year. Activity values shown here are estimates only. Actual activity values will be measured during the 2007-2008 financial year.

+ All time measures and targets are average values.
Measures and targets will be reviewed annually

Appendix 2 –Corporate Measures

The following table of measures will be provided as branch measures for the purposes of corporate reporting e.g. Corporate Plan, Budget, Annual Report.

| Indicator | Measured by | Reference Point or Target |
|---|--|--|
| Output Group 1 – National Leadership in radiation protection and nuclear safety | | |
| Security of high activity radioactive sources | <p>Radiation security expertise provided to radiation regulators to assess and endorse security plans for users of high activity sources.</p> <p>Operating national high activity radioactive source register.</p> <p>Operating centralised notification system for reporting stolen, lost or orphan radioactive sources.</p> <p>Documented uniform national approach to the transfer of high activity radioactive sources and a strategy for regaining control over orphan sources submitted to the Radiation Health Committee.</p> | <p>Expertise made available to regulators as agreed.</p> <p>National high activity radioactive source register operating.</p> <p>Centralised notification system operating.</p> <p>Documented uniform national approach to transfer of high activity radioactive sources and national strategy for regaining control over orphan sources approved by the Radiation Health Committee.</p> |
| The use of radiation in the different applications in Australia is conducted in accordance with international best practice in radiation protection and nuclear safety. | Effective implementation of the National Directory for Radiation Protection and Standards, Codes of Practice and Safety Guides | Publication and implementation of the NDRP Edition 2, including the Code of Practice on Security of Radioactive Sources |
| Output Group 3 – Regulation of Commonwealth entities using radiation sources and facilities or nuclear installations | | |
| Nuclear installations, radiation facilities, apparatus or radiation sources used by Australian Government are operated in accordance with licence conditions. | Number of incidents and number of non compliances | <p>Less than 40 incidents per annum in total.</p> <p>Less than 5 incidents requiring reporting within 24 hours.</p> <p>Less than 40 non-compliances per annum</p> |
| Regulatory processes are efficient | Number of licence and relevant change assessments and inspection reports per staff member | Greater than 10 per staff member per annum |
| Regulatory stakeholders are satisfied with performance | Stakeholder satisfaction surveys | Greater than 80% of stakeholders satisfied with the services provided |

Appendix 3 – Relevant Documents

1. Australian Radiation Protection and Nuclear Safety Act 1998
(www.arpansa.gov.au/legframe.htm)
2. ARPANSA Corporate Plan 2005-2008
(www.arpansa.gov.au/pubs/corplan/plan0508.pdf)
3. ARPANSA Statement of Regulatory Policy
(www.arpansa.gov.au/pubs/regulatory/regpolicy.pdf)
4. ARPANSA Regulatory Principles
(www.arpansa.gov.au/reg_prin.cfm)

Appendix 4 – Reporting under this Business Plan

| | |
|-------------------|---|
| Monthly | Minutes of the Regulatory Manager’s Meeting |
| Bi-monthly | Performance and Accountability Report Report to Executive Board of Management |
| Quarterly | Quarterly Report as required by Section 60 of the Australian Radiation Protection and Nuclear Safety Act 1998 |
| Annual | Report of achievements/milestones to CEO of ARPANSA |