AUSTRALIAN RADIATION PROTECTION AND NUCLEAR SAFETY AGENCY

ARPANSA

Agency resources and planned performance

Australian Radiation Protection and Nuclear Safety Agency

Health and Ageing Portfolio Agency

Section 1: Agency Overview and Resources

1.1 Strategic Direction Statement

The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), on behalf of the Australian Government, aims to protect the Australian people and the environment from the harmful effects of radiation.

ARPANSA independently regulates Australian Government agencies and contractors engaged by the Government in their use of radiation sources, radiation facilities and nuclear installations. ARPANSA promotes national uniformity of radiation protection and nuclear safety policy and practices across Commonwealth, and state and territory jurisdictions. ARPANSA also provides advice and services to the Australian community on radiation protection, nuclear safety and medical exposures to radiation, and undertakes related research.

The role and functions of ARPANSA are set out in the *Australian Radiation Protection and Nuclear Safety Act 1998*. ARPANSA is prescribed as an agency under the *Financial Management and Accountability Act 1997*.

1.2 Agency Resources

Table 1.2.1 shows the total resources from all origins. The table summarises how resources will be applied by outcome and by departmental classifications.

Table 1.2.1 ARPANSA Resource Statement – Budget Estimates for 2010-11 as at Budget May 2010

	Estimate of prior year amounts available in 2010-11	Proposed at Budget 2010-11	Total estimate 2010-11	Estimated available appropriation 2009-10
	$'000	$'000	$'000	$'000
Ordinary annual services[1]				
Departmental appropriation				
Prior year departmental appropriation[2]	1,565	-	1,565	4,616
Departmental appropriation[3]	-	15,941	15,941	14,282
s31 relevant agency receipts[4]	-	-	-	-
Total	**1,565**	**15,941**	**17,506**	**18,898**
Total ordinary annual services	**1,565**	**15,941**	**17,506**	**18,898**
Other services - Bill 2[5]				
Departmental non-operating				
Equity injections	-	-	-	-
Previous years' programs	-	-	-	-
Total	**-**	**-**	**-**	**-**
Total other services	**-**	**-**	**-**	**-**
Total available annual appropriations	**1,565**	**15,941**	**17,506**	**18,898**
Total appropriations excluding special accounts	**1,565**	**15,941**	**17,506**	**18,898**
Special accounts				
Opening balance[6]	3,235	-	3,235	2,649
Appropriation receipts[7]		15,232	15,232	17,333
Non-appropriation receipts to special accounts	-	11,027	11,027	10,104
Total special accounts	**3,235**	**26,259**	**29,494**	**30,086**
Total resourcing	**4,800**	**42,200**	**47,000**	**48,984**
Less appropriations drawn from annual or special appropriations above and credited to special accounts and/or CAC Act bodies through annual appropriations		(15,232)	(15,232)	(17,333)
Total net resourcing for ARPANSA	**4,800**	**26,968**	**31,768**	**31,651**

Note:
All figures are GST inclusive.

1 Appropriation Bill (No.1) 2010-11.
2 Estimated adjusted balance carried from previous year for annual appropriations.
3 Includes an amount of $2.143 million in 2010-11 for the Departmental Capital Budget (refer to table 3.2.5 for further details). For accounting purposes, this amount has been designated as 'contributions by owners'.
4 section 31 Relevant Agency receipts - estimate.
5 Appropriation Bill (No.2) 2010-11.
6 Estimated opening balance for special accounts. For further information on special accounts see Table 3.1.2.
7 Appropriation receipts from ARPANSA's annual and special appropriations for 2010-11 included above.

1.3 Budget Measures

Section 1.3 is not applicable to ARPANSA in 2010-11.

Section 2: Outcomes and Planned Performance

2.1 Outcomes and Performance Information

Outcome 1 **– Protection of people and the environment through radiation protection and nuclear safety research, policy, advice, codes, standards, services and regulation**

Outcome Strategy

ARPANSA, on behalf of the Australian Government, aims to protect people and the environment from the harmful effects of radiation. ARPANSA applies national and international knowledge to promote national uniformity in radiation protection; regulate the use of radiation sources, facilities and nuclear installations controlled by the Australian Government; and promote public awareness of the harmful effects of radiation. ARPANSA will use a risk-focused and performance-based approach to improve radiation safety outcomes, imposing minimal regulatory burden.

Advances in medical technology, such as diagnostic and therapeutic radiation, have led to a rapid increase in the use of ionizing radiation.[1] While beneficial medically, diagnostic imaging procedures are the largest man-made source of ionizing radiation exposure. ARPANSA will promote radiation protection principles in the use of ionizing radiation in imaging technologies to ensure the safety of patients, medical radiation practitioners and other health workers.

Workers involved in oil and gas production, mineral extractive industries, coal-fired power generation, and mining, are often exposed to radiation due to naturally occurring radioactive materials. People also receive radiation exposure from their local environment and from the soil beneath their homes and/or from the building materials that contain enhanced levels of naturally-occurring radioactive elements, such as uranium, thorium and potassium. ARPANSA provides radiation protection guidance for appropriate management of risks posed by these materials.

There are increasing opportunities for exposure to electromagnetic radiation and fields from man-made sources. This population exposure requires monitoring. ARPANSA will provide advice to the Australian Government, state and territory governments, and the community on the possible health effects of electromagnetic radiation and fields. The proposed standard, 'Limits and Precautionary Measures for Reducing Exposure to Electric and Magnetic Fields — 0 Hz to 3 kHz', will contain limits on exposure to protect against known health effects and a requirement for precautionary assessments. ARPANSA will support the implementation of the proposed standard by providing scientific information, practical and cost-effective precautionary strategies and techniques, and a uniform approach to compliance assessment. Implementation throughout the states and territories will be coordinated through the Radiation Health Committee.

There are concerns about the potential misuse of radioactive materials. ARPANSA aims to work collaboratively with the states and territories to support Australia's response to

[1] Radiation that produces ionization in matter, e.g. gamma rays and X-rays. When these radiations pass through tissues in the body, they have sufficient energy to damage DNA.

radiation emergencies, and to reduce hazards to people and the environment. Through international agencies, such as the Comprehensive Test Ban Treaty Organisation, ARPANSA supports the detection of clandestine testing of nuclear weapons. ARPANSA also aims to protect the security of radioactive sources in Australia, improve the regional emergency planning and preparedness network, and increase public understanding of the effects of radiation from natural and man-made sources and the effects of ultraviolet radiation on susceptible groups of the Australian population.

In 2010-11, ARPANSA laboratory facilities at Yallambie, Victoria, will be upgraded.

ARPANSA Budgeted Expenses and Resources

Table 2.1.1 provides an overview of the total expenses for ARPANSA by Program.

Table 2.1.1: Budgeted Expenses and Resources for ARPANSA

	2009-10 Estimated actual	2010-11 Budget	2011-12 Forward year 1	2012-13 Forward year 2	2013-14 Forward year 3
	$'000	$'000	$'000	$'000	$'000
Program 1.1: Radiation protection and nuclear safety					
Departmental expenses					
Ordinary annual services (Appropriation Bill No. 1)	14,282	13,798	13,631	13,611	13,736
Special accounts	9,087	10,010	9,411	8,613	8,771
Expenses not requiring appropriation in the Budget year[1]	1,266	1,904	1,964	2,171	2,171
Total for Program 1.1	**24,635**	**25,712**	**25,006**	**24,395**	**24,678**
Total expenses for Outcome 1	**24,635**	**25,712**	**25,006**	**24,395**	**24,678**

	2009-10	2010-11
Average staffing level (number)	144	146

[1] Unfunded depreciation for 2010-11 and forward years and return of unspent accumulated deprecation in 2009-10.

Contributions to ARPANSA

Program 1.1: Radiation protection and nuclear safety

Program Objective

The Australian Government, through this Program, aims to:

- apply best practice regulation, through the revision of regulatory processes and the promotion of national uniformity in radiation protection;
- promote the most effective use of radiation in medicine, and monitor and provide advice on radiation exposure from diagnostic procedures;
- improve radiation protection of employees, the public and the environment from natural and man-made sources of radiation;
- monitor and provide advice on population exposures to non-ionizing radiation; and
- assure the security of radioactive sources and strengthen Australia's ability to respond to radiation emergencies.

Major Activities

Regulate the use of radiation

To protect people and the environment, the Australian Government is committed to effectively regulating its use of radiation, and promoting the adoption of a nationally uniform regulatory framework.

To achieve this, ARPANSA will conduct research and engage with the international community to strengthen Australia's knowledge of radiation protection and nuclear safety. In particular, engagement with the Asia-Pacific region will improve radiation and nuclear safety and security of countries in the region. This knowledge will assist in the delivery of best practice regulation of Australian Government users of radiation and further develop the national regulatory framework, including the *National Directory for Radiation Protection* (the National Directory) and the Codes of Practice and standards. This framework will be developed in consultation with state and territory governments.

The National Directory, endorsed by the Australian Health Ministers' Conference (AHMC), will enhance uniformity of radiation protection controls across Australia. ARPANSA will continue to work with states and territories to reach agreement on further inclusions in the National Directory and the development of supporting Codes of Practice and standards. The National Directory will ensure a uniform approach to radiation protection across Australia. Jurisdictions will be able to adopt the National Directory within their existing regulatory systems. The National Directory is being developed as new agreements are reached between the Australian Government and states and territories on aspects of radiation protection. A challenge will be developing provisions that are consistent with the different legislation in each jurisdiction and meet radiation protection objectives. ARPANSA is working with states and territories, through the Radiation Health Committee, to achieve uniform objectives, including regulatory controls over solariums.

ARPANSA regulates the use of radiation through: licensing, inspecting, monitoring, and enforcing compliance; enhancing awareness of good radiation practices and nuclear safety; controlling the import and export of radioactive sources; and controlling the transport of radioactive materials by Australian Government agencies. ARPANSA will maximise safety outcomes with a targeted and risk-focused approach, and reduce the regulatory burden.

ARPANSA will also ensure effective governance of regulatory processes by ensuring planning is strategic and focussed on achieving outcomes. It will use and monitor performance targets and indicators; promote quality and risk management; and develop effective regulatory management information systems.

Managing knowledge in a highly specialised area, such as nuclear safety, involves information exchange, and specialised staff training, development and recruitment. This will be largely addressed by active involvement with the International Atomic Energy Agency activities to exchange information and benchmark regulatory processes, and to participate in its training activities and that of its members. Staff development will be planned and monitored through the ARPANSA performance development system, and recruitment will be conducted internationally, as required.

Promote effective use of ionizing radiation in medicine

ARPANSA aims to improve the safe and effective use of ionizing radiation in medical diagnosis and therapy by engaging with medical professions, and providing training and access to research facilities for people working in the medical radiation field.

In 2010-11, ARPANSA will provide radiation services and undertake radiation dose surveys and quality assurance programs. It will provide information on techniques to reduce radiation doses to patients and occupationally exposed persons. ARPANSA will work with the relevant medical professional bodies to develop reference levels for diagnostic imaging procedures. ARPANSA will also collaborate with professional bodies, medical and health professionals, universities, and other research institutions to optimise use of radiation in medicine.

ARPANSA will undertake diagnostic reference levels/dose surveys of the major imaging modalities to determine the exposure of the Australian population from the use of ionizing radiation in medical diagnosis. These modalities will include computer tomography (CT), mammography, nuclear medicine, positron emission tomography (PET), and interventional radiology. Through the development of a web-based program, accessible by all diagnostic imaging practices, ARPANSA will survey, report, collate and develop individual practice and national diagnostic reference levels for all diagnostic imaging modalities which use ionizing radiation. The initial focus will be on multi-detector computed tomography, which is the highest contributor of medical radiation exposure to the Australian population. ARPANSA's state-of-the-art medical linear accelerator will ensure that radiotherapy centres deliver prescribed radiation doses to cancer patients.

Protect individuals from natural sources of radiation

The Australian Government aims to maintain a high level of protection for the Australian population from natural sources of radiation.

To protect people from occupational exposure to ionizing radiation, ARPANSA will maintain and improve radiation measurement capacities, and will produce national guidance on the assessment of occupational exposures arising from uranium mining. This guidance will support the operation of a national database on occupational doses received from uranium mining. The database will be used to monitor and audit doses received by miners, inform miners of their doses and inform regulators on the effectiveness of current controls.

In 2010-11, ARPANSA will expand its engagement with the uranium mining industry to incorporate dose records from new entrants to the industry. ARPANSA will also implement an improved environmental impact assessment framework for uranium mining and radioactive waste disposal, to ensure that people and the environment are adequately protected.

In 2010-11, ARPANSA will also assess and report on the significance of public and occupational exposure from other industries with enhanced levels of naturally occurring radioactive materials. This includes the coal-fired power generation and metal extraction industries, which have not been previously examined. Some industries are not fully aware of the radiation risks associated with their businesses, and there are variable levels of industry engagement. ARPANSA will engage broadly with these industries to ensure the application of radiation protection controls to mitigate any potential risk.

ARPANSA will maintain its solar ultraviolet measurement network to continuously monitor the level of exposure by the Australian population. It will also provide live solar ultraviolet radiation levels for the major cities across Australia and provide information and advice to the public on harmful effects of solar ultraviolet radiation. ARPANSA will publish results of measurements of ultraviolet radiation exposure to individuals in various population groups from solar, solariums and other sources in collaboration with national and international organisations. ARPANSA, in collaboration with Cancer Councils and other relevant national bodies, will also give advice and undertake assessments of the effectiveness of strategies to protect children and outdoor workers from ultraviolet radiation. The desired health benefits will depend primarily on the success of modifying the population's behaviour regarding exposure to the sun and use of solariums. ARPANSA depends on specialist expertise of its collaborating agencies to communicate appropriate awareness raising messages.

ARPANSA's facility for the measurement of radioactivity in environmental samples is accredited by the National Association of Testing Authorities (NATA). In 2010-11, the facility will be upgraded to meet current NATA accreditation requirements, Australian standards, occupational health and safety standards, as well as radiation licensing requirements.

Monitor population exposures to electric and magnetic fields and electromagnetic radiation

The Australian Government aims to monitor the exposure of the population to extremely low frequency electric and magnetic fields. Monitoring will inform the regulatory process, and ARPANSA will alert the jurisdictions, industry and the public to the potentially harmful effects of this radiation. These low frequency fields are produced by the electrical supply infrastructure, electrical equipment and appliances. Electromagnetic radiation from mobile phone and other new technologies is also monitored.

ARPANSA will support implementation of the proposed Radiation Protection Standard[2] by providing information on precautionary strategies to reduce exposures, risk management to balance risks from exposure to electromagnetic radiation against other risks, and costs of protection and assessment methods to assist in determining compliance with exposure limits. ARPANSA will continue to analyse scientific studies on the potential adverse health effects of exposure to electric and magnetic fields and radiofrequency electromagnetic

[2] Limits and Precautionary Measures for Reducing Exposure to Electric & Magnetic Fields — 0 Hz to 3 kHz.

radiation, and provide guidance to the public, industry and all levels of government. Results are expected to be published in 2010-11 from the Interphone multinational epidemiological study. This will allow ARPANSA to make informed recommendations on the review of existing radiofrequency exposure standard RPS 3[3] and other regulatory or advisory action. ARPANSA will draw upon the skills and expertise of academics and the research community to ensure Australia's radiation regulations and practices are consistent with world's best practice and new scientific developments.

Ensure the security of radioactive sources and radiation emergency preparedness

The Australian Government is working to ensure the security of radioactive material, and that it is sufficiently prepared to deal with radiation emergencies.

ARPANSA will continue to work with the state and territory governments to implement the national *Code of Practice for the Security of Radioactive Sources* (the Code of Practice). To effectively implement the Code of Practice, an increase is required in the awareness of radioactive material users and of the jurisdictions which monitor compliance. In support of the implementation, an education and awareness program will be delivered by ARPANSA, in collaboration with the states and territories. The compliance of Australian Government entities subject to the Code of Practice will be monitored and enforced by ARPANSA. States and territories are continuing to develop and implement the national register of high activity radiation sources. ARPANSA will support the states and territories and other users to develop security plans and incident reporting arrangements.

To prepare for radiation emergencies, the Australian Government has established specialised facilities, equipment and trained radiation emergency response teams. Through provision of, and participation in, training exercises, and involvement in radiation emergency planning at all levels of government, ARPANSA will work to improve its capability to respond to radiation emergencies. The Australian Government will also support the ability of regional countries to respond to radiological and nuclear incidents by improving the regional emergency planning and preparedness network. This support will be provided by ARPANSA though workshops, and in-country technical advice. ARPANSA will also support the development of a regional network of technical experts and the maintenance of a secure system for information exchange on preparedness and response to radiation emergencies. ARPANSA collaborates with the Department of Foreign Affairs and Trade regarding its activities on regional chemical, biological, radiological and nuclear security.

Australia's obligations under the Comprehensive Nuclear-Test-Ban Treaty include the establishment and maintenance of part of the international monitoring network for airborne radioactive releases from nuclear explosions. Construction of a new radionuclide[4] particulate monitoring station at Macquarie Island will be completed by late 2010-11 and another, at Mawson, at the Australian Antarctic base, will follow. Also, a major upgrade of Macquarie Island's electricity generation capacity is required, with construction to be completed in 2010-11.

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[3] Radiation Protection Series Publication No. 3*: Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields - 3 kHz to 300 GHz* (2002).

[4] An unstable atom or species of atom that emits ionizing radiation.

Program 1.1: Deliverables

ARPANSA will produce the following 'Deliverables' to achieve the Program Objective.

Table 2.1.2: Qualitative Deliverables for Program 1.1

Qualitative Deliverables	2010-11 Reference Point or Target
Regulate the use of radiation	
Continued collaboration with the states and territories, relevant industries and professional bodies to further develop the National Directory for Radiation Protection and its supporting Codes and Standards	Finalise National Directory amendments on intense pulsed light and laser use for cosmetic purposes, use of older radioactive sources, and user disposal of low level radioactive waste Complete a Standard on Extremely Low Frequency exposure, and complete a review of Australia's Radiation Protection Standards
Promote effective use of ionizing radiation in medicine	
Engage with the medical professional community	Continued and extended collaboration with peak professional bodies and radiation health professionals
Protect individuals from natural sources of radiation	
Implement a national dose register to provide access to radiation dose history records for workers in the uranium mining industry	Dose register operational within yet to be agreed timeframes
Review the national approach to the assessment of the environmental impact from uranium mining and develop new guidance for radioactive waste disposal based on existing international frameworks	Publish a technical report on environmental impact and regulatory guidance

Qualitative Deliverables	2010-11 Reference Point or Target
Monitor population exposures to electric and magnetic fields and electromagnetic radiation	
Support the implementation of a national Radiation Protection Standard for 'Limits and Precautionary Measures for Reducing Exposure to Electric and Magnetic Fields – 0Hz to 3kHz' through the provision of guidance documents and technical information regarding measurements of fields, precautionary assessments and field reduction methods[5]	The following information is to be prepared and disseminated in a timely manner: • summary of the Standard to enable understanding by the wider community • questions and answers regarding the Standard • examples of compliance schemes, reference to measurement and computation standards • examples of precautionary assessments with focus on exposures of children for long periods
Provide recommendations and advice to the Radiation Health Committee regarding the status of the scientific research into the adverse health effects of radiofrequency electromagnetic radiation exposure, supported by reports on the epidemiology, *in-vitro* and *in-vivo* laboratory studies and human provocation studies	ARPANSA will undertake the following activities in a timely manner: • reviews of the scientific literature published since 2000 relevant to health effects of radiofrequency electromagnetic radiation • recommendations to the Radiation Health Committee regarding need for modifications or review of RF Standard (RPS 3) • incorporation of International Agency for Research on Cancer and World Health Organization assessments and final report to Radiation Health Committee and supporting documentation
Ensure the security of radioactive sources and radiation emergency preparedness	
Maintain the web portal for the regional sharing of information relating to radiation emergency preparedness	Improved regional engagement and information sharing

[5] The focus, type and timing of supporting information and guidance provided will depend on the final form of the published standard and regulatory impact statement, as well as the level of acceptance of the standard by the multiple relevant jurisdictions.

Table 2.1.3: Quantitative Deliverables for Program 1.1

Quantitative Deliverables	2009-10 Revised Budget	2010-11 Budget	2011-12 Forward Year 1	2012-13 Forward Year 2	2013-14 Forward Year 3
Regulate the use of radiation					
Number of inspections of facilities holding a Commonwealth licence	60	60	60	60	60
Efficient regulatory processes measured by the sum of the number of: • licence application assessment reports • licence amendment assessment reports • licence inspection reports per staff member	N/A	>7	>7	>7	>7
Promote effective use of ionizing radiation in medicine					
The proportion of[6] cancer treatment centres transitioning from indirect calibration (cobalt-60) to direct calibration based on the ARPANSA Medical Standards Linac[7]	1%[8]	15%	30%	50%	70%
Number of reports, publications and presentations on the optimisation of the use of ionizing radiation in medicine	5	>10	>15	>15	>15

[6] In the 2009-10 Portfolio Budget Statements, ARPANSA had a quantitative deliverable, 'Number of treatment centres for cancer using indirect calibrations with improved correction factors for calibration of radiotherapy beams'. This deliverable has been changed to a proportion as it is a clearer measure. This is because the number of centres has been increasing, some of these centres have several satellite centres, some or all of which will take their dosimetry from the central site and some centres will retain an indirect calibration for the transitional period.

[7] The total number of treatment centres in 2010 is 57.

[8] Pilot calibrations to confirm reliability and reproducibility.

Quantitative Deliverables	2009-10 Revised Budget	2010-11 Budget	2011-12 Forward Year 1	2012-13 Forward Year 2	2013-14 Forward Year 3
Number of diagnostic reference level/dose surveys of diagnostic imaging modalities	N/A	1	2	1	1
Protect individuals from natural sources of radiation					
Number of reports, publications and presentations of surveys and assessments of public and occupational exposure to natural sources of radiation	11	>10	>10	>10	>10
Number of Australian cities provided with live UV index readings	9	10	11	11	11
Monitor population exposures to electric and magnetic fields and electromagnetic radiation					
Number of reports, publications and presentations on public and occupational exposure[9]	N/A	>5	>5	>5	>5
Ensure the security of radioactive sources and radiation emergency preparedness					
Number of monitoring facilities installed and maintained as part of Australia's commitment to the Comprehensive Nuclear-Test-Ban Treaty to verify compliance with the treaty	7	8	8	9	9
Number of Australian jurisdictions that have integrated existing source register with a national sealed source register	9	9	9	9	9

[9] This deliverable has been revised from the 2009-10 Portfolio Budget Statements, to accurately reflect the number of publications for the specific major activity.

Program 1.1: Key Performance Indicators

The following 'Key Performance Indicators' measure the impact of the Program.

Table 2.1.4: Qualitative Key Performance Indicators for Program 1.1

Qualitative Indicator	2010-11 Reference Point or Target
Promote effective use of ionizing radiation in medicine	
Establish computed tomography diagnostic reference levels to optimise the use of radiation in medicine	Computed tomography diagnostic reference levels established in collaboration with the Royal Australian and New Zealand College of Radiologists
Protect individuals from natural sources of radiation	
Provide guidance to the public and industry about the radiation environment and naturally occurring radioactive materials and identification of individuals and communities where protective action may be required	Technical reports and safety guidance on natural background radiation and naturally occurring radioactive materials to be published

Table 2.1.5: Quantitative Key Performance Indicators for Program 1.1

Quantitative Indicators	2009-10 Revised Budget	2010-11 Budget Target	2011-12 Forward Year 1	2012-13 Forward Year 2	2013-14 Forward Year 3
Regulate the use of radiation					
Number of breaches by Commonwealth users of radiation of their conditions of licence	<20	<20	<20	<20	<20
Number of serious accidents by Commonwealth users of radiation[10]	<5	<5	<5	<5	<5
Number of incidents involving Commonwealth users of radiation[11]	<40	<40	<40	<40	<40

[10] A serious accident is an event which involves a radiation exposure above regulatory limits.

[11] An incident is an event which involves a radiation exposure less than the regulatory limits.

Quantitative Indicators	2009-10 Revised Budget	2010-11 Budget Target	2011-12 Forward Year 1	2012-13 Forward Year 2	2013-14 Forward Year 3
Promote effective use of ionizing radiation in medicine					
Percentage of practices responding to computed tomography diagnostic reference levels survey	N/A	25%	50%	75%	100%
Ensure the security of radioactive sources and radiation emergency preparedness					
Number of security incidents involving high activity radioactive sources requiring immediate reporting[12]	<5	<5	<5	<5	<5

[12] Data caveat: The outcome of ARPANSA's regulatory role is best demonstrated by the number of accidents and incidents which occur. These indicators reflect the degree of achievement of the safety objective. While it is an indicator of an outcome which is not directly under the control of the regulator, the regulator must do what it can to influence the 'bottom line' safety outcome with various tools including, but not limited to, the power of the legislation.

Section 3: Explanatory Tables and Budgeted Financial Statements

Section 3 presents explanatory tables and budgeted financial statements which provide a comprehensive snapshot of agency finances for the 2010-11 budget year. It explains how budget plans are incorporated into the financial statements and provides further details of the reconciliation between appropriations and program expenses, movements in administered funds, special accounts and government Indigenous expenditure.

3.1 Explanatory Tables

3.1.1 Movement of administered funds between years

Section 3.1.1 is not applicable to ARPANSA.

3.1.2 Special Accounts

Special Accounts provide a means to set aside and record amounts used for specified purposes. Special Accounts can be created by a Finance Minister's Determination under the FMA Act or under separate enabling legislation. Table 3.1.2 shows the expected additions (receipts) and reductions (payments) for each account used by ARPANSA.

Table 3.1.2: Estimates of special account flows and balances

		Opening balance	Appropriation receipts	Other receipts	Payments	Closing balance
		2010-11	2010-11	2010-11	2010-11	2010-11
		2009-10	*2009-10*	*2009-10*	*2009-10*	*2009-10*
	Outcome	$'000	$'000	$'000	$'000	$'000
ARPANSA Account - s21 FMA Act	1					
Australian Radiation Protection and Nuclear Safety Act 1998 [D]		**3,235**	**15,232**	**11,027**	**26,953**	**2,541**
		2,649	*17,333*	*10,104*	*26,851*	*3,235*
Total special accounts 2010-11 Estimate		**3,235**	**15,232**	**11,027**	**26,953**	**2,541**
Total special accounts 2009-10 estimate actual		*2,649*	*17,333*	*10,104*	*26,851*	*3,235*

[D] Departmental.

3.1.3 Australian Government Indigenous Expenditure

The 2010-11 Australian Government Indigenous Expenditure (AGIE) Statement is not applicable because ARPANSA has no specific Indigenous expenses.

3.2 Budgeted Financial Statements

3.2.1 Differences in agency resourcing and financial statements

Section 3.2.1 is not applicable to ARPANSA.

3.2.2 Analysis of budgeted financial statements

An analysis of ARPANSA's budgeted financial statements for 2010-11 is provided below.

Departmental Resources

Income Statement

ARPANSA will deliver a balanced budget in 2009-10 and in the remaining forward years.

Revenue

ARPANSA's own sourced income is derived from the sale of scientific services such as the Personal Radiation Monitoring Service, the Comprehensive Nuclear-Test-Ban Treaty (CTBT) Organisation contracts to build, operate and maintain monitoring stations, and licence application fees and annual charges associated with ARPANSA's regulatory activities.

Appropriation revenues are in line with Government decisions.

Expenses

Expenses are forecast to be in line with income from Government and other sources.

Balance Sheet

ARPANSA's total asset and liabilities are expected to remain stable over the forward years.

Cash Flow

Cash flows are consistent with projected income and expense, capital injections from Government and investments in property plant and equipment.

3.2.3 Budgeted financial statements tables

Table 3.2.1: Comprehensive income statement (showing net cost of services) (for the period ended 30 June)

	Estimated actual 2009-10 $'000	Budget estimate 2010-11 $'000	Forward estimate 2011-12 $'000	Forward estimate 2012-13 $'000	Forward estimate 2013-14 $'000
EXPENSES					
Employee benefits	14,456	14,684	14,698	14,813	14,813
Supplier expenses	8,285	9,124	8,344	7,411	7,694
Depreciation and amortisation	1,894	1,904	1,964	2,171	2,171
Total expenses	**24,635**	**25,712**	**25,006**	**24,395**	**24,678**
LESS:					
OWN-SOURCE INCOME					
Revenue					
Sale of goods and rendering of services	5,687	6,440	4,686	4,728	4,771
Other revenue	3,400	3,570	4,725	3,885	4,000
Total revenue	**9,087**	**10,010**	**9,411**	**8,613**	**8,771**
Gains					
Other	-	-	-	-	-
Total gains	**-**	**-**	**-**	**-**	**-**
Total own-source income	**9,087**	**10,010**	**9,411**	**8,613**	**8,771**
Net cost of (contribution by) services	**15,548**	**15,702**	**15,595**	**15,782**	**15,907**
Revenue from Government	14,282	13,798	13,631	13,611	13,736
Surplus (Deficit)	**(1,266)**	**(1,904)**	**(1,964)**	**(2,171)**	**(2,171)**
Surplus (Deficit) attributable to the Australian Government	**(1,266)**	**(1,904)**	**(1,964)**	**(2,171)**	**(2,171)**
OTHER COMPREHENSIVE INCOME					
Changes in asset revaluation reserves	-	-	-	-	-
Total other comprehensive income	-	-	-	-	-
Total comprehensive income attributable to the Australian Government	**(1,266)**	**(1,904)**	**(1,964)**	**(2,171)**	**(2,171)**

ARPANSA

Table 3.2.1: Comprehensive income statement (showing net cost of services) (for the period ended 30 June) (Continued)

Note: Reconciliation of operating result attributable to the agency	2009-10	2010-11	2011-12	2012-13	2013-14
	$'000	$'000	$'000	$'000	$'000
Operating result attributable to the Australian Government	(1,266)	(1,904)	(1,964)	(2,171)	(2,171)
plus non-appropriated expenses depreciation and amortisation	1266	1,904	1,964	2,171	2,171
Operating result attributable to the Agency	**-**	**-**	**-**	**-**	**-**

Table 3.2.2: Budgeted departmental balance sheet (as at 30 June)

	Estimated actual 2009-10 $'000	Budget estimate 2010-11 $'000	Forward estimate 2011-12 $'000	Forward estimate 2012-13 $'000	Forward estimate 2013-14 $'000
ASSETS					
Financial assets					
Cash and cash equivalents	3,235	2,541	1,706	1,573	1,345
Receivables	2,157	2,866	3,716	3,944	4,172
Accrued Revenue	481	481	481	481	481
Total financial assets	**5,873**	**5,888**	**5,903**	**5,998**	**5,998**
Non-financial assets					
Land and buildings	9,531	9,341	9,576	9,781	9,986
Infrastructure, plant and equipment	8,040	8,629	8,834	8,929	9,024
Inventories	1,772	1,772	1,772	1,772	1,772
Intangibles	737	577	517	445	373
Other	322	322	322	322	322
Total non-financial assets	**20,402**	**20,641**	**21,021**	**21,249**	**21,477**
Total assets	**26,275**	**26,529**	**26,924**	**27,247**	**27,475**
LIABILITIES					
Payables					
Suppliers	493	493	493	493	493
Other payables	619	619	619	619	619
Total payables	**1,112**	**1,112**	**1,112**	**1,112**	**1,112**
Provisions					
Employees	5,070	5,085	5,100	5,195	5,195
Total provisions	**5,070**	**5,085**	**5,100**	**5,195**	**5,195**
Total liabilities	**6,182**	**6,197**	**6,212**	**6,307**	**6,307**
Net Assets	**20,093**	**20,332**	**20,712**	**20,940**	**21,168**
EQUITY					
Contributed equity	4,624	6,767	9,111	11,510	13,909
Reserves	5,269	5,269	5,269	5,269	5,269
Retained surpluses or accumulated deficits	10,200	8,296	6,332	4,161	1,990
Total equity	**20,093**	**20,332**	**20,712**	**20,940**	**21,168**

Table 3.2.3: Departmental statement of changes in equity — summary of movement (Budget year 2010-11)

	Retained surplus	Asset revaluation reserve	Other reserves	Contributed equity/ capital	Total equity
	$'000	$'000	$'000	$'000	$'000
Balance carried forward from previous period	10,200	-	5,269	4,624	20,093
Surplus (deficit) for the period	(1,904)	-	-	-	(1,904)
Capital budget - Bill 1[1]	-	-	-	2,143	2,143
Estimated closing balance as at 30 June 2011	**8,296**	**-**	**5,269**	**6,767**	**20,332**

[1] Departmental Capital Budget (DCB).

Table 3.2.4: Budgeted departmental statement of cash flows (for the period ended 30 June)

	Estimated actual 2009-10 $'000	Budget estimate 2010-11 $'000	Forward estimate 2011-12 $'000	Forward estimate 2012-13 $'000	Forward estimate 2013-14 $'000
OPERATING ACTIVITIES					
Cash received					
Goods and services	6,095	6,755	5,144	4,243	4,286
Appropriations	17,333	13,089	13,161	13,383	13,508
Net GST received	609	702	559	485	485
Other cash received	3,400	3,570	4,725	3,885	4,000
Total cash received	**27,437**	**24,116**	**23,589**	**21,996**	**22,279**
Cash used					
Employees	14,406	14,669	14,681	14,718	14,813
Suppliers	8,456	9,217	8,823	6,692	6,968
Net GST paid	846	924	920	719	726
Total cash used	**23,708**	**24,810**	**24,424**	**22,129**	**22,507**
Net cash from (or used by) operating activities	**3,729**	**(694)**	**(835)**	**(133)**	**(228)**
INVESTING ACTIVITIES					
Cash used					
Purchase of property, plant and equipment	3,143	2,143	2,344	2,399	2,399
Total cash used	**3,143**	**2,143**	**2,344**	**2,399**	**2,399**
Net cash from (or used by) investing activities	**(3,143)**	**(2,143)**	**(2,344)**	**(2,399)**	**(2,399)**
FINANCING ACTIVITIES					
Cash received					
Capital budget - Bill 1 (DCB)	-	2,143	2,344	2,399	2,399
Total cash received	**-**	**2,143**	**2,344**	**2,399**	**2,399**
Net cash from (or used by) financing activities	**-**	**2,143**	**2,344**	**2,399**	**2,399**
Net increase (or decrease) in cash held	**586**	**(694)**	**(835)**	**(133)**	**(228)**
Cash at the beginning of the reporting period	2,649	3,235	2,541	1,706	1,573
Cash at the end of the reporting period	**3,235**	**2,541**	**1,706**	**1,573**	**1,345**

Table 3.2.5: Capital budget statement

	Estimated actual 2009-10 $'000	Budget estimate 2010-11 $'000	Forward estimate 2011-12 $'000	Forward estimate 2012-13 $'000	Forward estimate 2013-14 $'000
CAPITAL APPROPRIATIONS					
Capital budget - Bill 1 (DCB)	-	2,143	2,344	2,399	2,399
Total capital appropriations	**-**	**2,143**	**2,344**	**2,399**	**2,399**
Total new capital appropriations					
Represented by:					
Purchase of non-financial assets	-	2,143	2,344	2,399	2,399
Total represented by	**-**	**2,143**	**2,344**	**2,399**	**2,399**
PURCHASE OF NON-FINANCIAL ASSETS					
Funded by capital appropriation - DCB[1]	-	2,143	2,344	2,399	2,399
Funded internally from departmental resources[2]	3,143	-	-	-	-
Total acquisitions of non-financial assets	**3,143**	**2,143**	**2,344**	**2,399**	**2,399**
RECONCILIATION OF CASH USED TO ACQUIRE ASSETS TO ASSET MOVEMENT TABLE					
Total purchases	3,143	2,143	2,344	2,399	2,399
Total cash used to acquire assets	**3,143**	**2,143**	**2,344**	**2,399**	**2,399**

[1] Does not include annual finance lease costs. Include purchase from current and previous years Departmental Capital Budgets (DCB).

[2] Includes the following sources of funding:
- annual and prior year appropriations;
- donations and contributions;
- gifts;
- finance leases;
- internally developed assets;
- section 31 relevant agency receipts (for FMA agencies only); and
- proceeds from the sale of assets.

Table 3.2.6: Statement of asset movements (2010-11)

	Land	Buildings	Other infrastructure, plant & equipment	Intangibles	Total
	$'000	$'000	$'000	$'000	$'000
As at 1 July 2010					
Gross book value	3,900	6,241	11,776	1,664	23,581
Accumulated depreciation/amortisation	-	610	3,736	927	5,273
Opening net book balance	**3,900**	**5,631**	**8,040**	**737**	**18,308**
CAPITAL ASSET ADDITIONS					
Estimated expenditure on new or replacement assets					
By purchase - appropriation ordinary annual services	-	300	1,643	200	2,143
Sub-total	**-**	**300**	**1,643**	**200**	**2,143**
Other movements					
Depreciation/amortisation expense	-	490	1,054	360	1,904
as at 30 June 2011					
Gross book value	3,900	6,541	13,419	1,864	25,724
Accumulated depreciation/amortisation	-	1,100	4,790	1,287	7,177
Closing net book balance	**3,900**	**5,441**	**8,629**	**577**	**18,547**

3.2.4 Notes to the Financial Statements

The Budgeted Financial Statements for the ARPANSA are prepared for the Budget year, previous year and three forward years.

Changes resulting from Net Cash Arrangements

Net cash appropriation arrangements have been implemented as part of the Operation Sunlight reform agenda to increase budget transparency and accountability through improving the levels of disclosure to Parliament regarding the use of appropriations, and encouraging more effective resource management practices with the release of funds to agencies as and when they are needed.

Net cash appropriation arrangements involve the cessation of funding for depreciation, amortisation and make good expenses. Funding for these expenses have been replaced with a Departmental Capital Budgets (DCBs) for FMA Act Agencies.

To aid transparency of operating results as a result of this change, the Comprehensive Income Statement includes a reconciliation of operating result attributable to the ARPANSA by including non-appropriated depreciation and amortisation expenses.

Estimates of special account flows and balances

This tables provides for the cash flows and balances of the special accounts under the responsibility of the ARPANSA.

Departmental Financial Statements

Comprehensive income statement (showing net cost of services) (for the period ended 30 June)

This statement provides a picture of the expected financial results for the ARPANSA by identifying accrual expenses and revenues showing the net cost of services.

This statement also provides for the first time, revenues and expenses taken through equity to provide for a comprehensive income and expense

Budgeted departmental balance sheet (as at 30 June)

The statement shows the financial position of the ARPANSA. It enables decision-makers to track the management of the ARPANSA's assets and liabilities.

Departmental statement of changes in equity – summary of movement (Budget year 2010-2011)

This table shows the movements in equity during the Budget year.

This table has been amended for the 2010-11 Budget to include amounts provided in the ARPANSA Capital Budget as part of net cash arrangements as discussed above.

Budgeted departmental statement of cash flows (for the period ended 30 June)

Budgeted cash flows as reflected in the statement of cash flows, provides important information on the extent and nature of cash flows by characterising them into expected cash flows from operating activities, investing activities and financing activities.

Capital budget statement

This table shows the appropriations from Government for the purchase of capital items and purchases of non-financial assets from capital and internal sources.

This table has been amended for the 2010-11 budget to include Departmental Capital Budget funding as part of net cash arrangements as discussed above and to provide a reconciliation between the asset purchases and cash flow statement.

Statement of asset movements (2010-11)

This table shows the movements in asset classes through addition (eg purchases) and other movements (eg depreciation and amortisation).

Purchases are reconciled in the Capital Budget Statement to the Statement of Cash Flows as described above and include sources of funding for asset purchases and include amounts received under net cash resourcing arrangements as also described above.