Australian Government
Australian Radiation Protection and Nuclear Safety Agency

arpansa

Business Case

ARPANSA-PM-TMP-002

General details

General	
Project number (if known):	PRO-0025
Idea/Project name:	Waste Storage Area
Proposer/Project Manager:	Marcus Grzechnik
Project Owner:	Gillian Hirth
Section:	MERS/RHS
Start date:	Already initiated
End date:	December 2018
Duration:	

Executive summary

Summary of business case

Between the late 1920's to the 1970's, the Commonwealth Radiation Laboratory (CRL) existed on a site at University of Melbourne (UoM). The activities that were conducted at the CRL during this time resulted in legacy contamination. Because of this the Commonwealth (represented by ARPANSA) is accepting responsibility for the waste produced from remediation of the site. Approximately 210 drums containing soil and building material contaminated with radium-226 require storage in a licenced radioactive waste storage facility.

While the activities were carried out by a predecessor to ARPANSA, it is considered good practice that ARPANSA take care of the legacy. ARPANSA expects other organisations to take care of their legacy waste, as such we should lead by example.

The drums of legacy low-level radioactive waste are to be transferred to the Yallambie site from Melbourne University. Several options have been considered in a SWOT analysis (attached), where the construction of an area to store the waste within the ARPANSA building is the preferred option.

Recommendations – what would you like the EG to approve?

The EG previously approved;

- The proposed direction, including where the legacy waste should be located (within ARPANSA's facility)
- The transportation costs for the initial tranche of 72 drums (approximately $5K)
- Commissioning of the design for the proposed storage area s 47G - business

The EG will be asked to approve the budget for the building cost following design completion and receipt of the tender bids. Based on the design, we expect the costs to be circa $250K.

Background

Why are we doing this project? What problem are we trying to solve? What is the current state? Try to summarise in five dot points.

- ARPANSA has accepted responsibility for the management of legacy waste generated during the remediation of a UoM building currently under remediation.
- The UoM site was once operated by the Commonwealth as the Commonwealth Radiation Laboratory (CRL) from the late 1920's to the 1970's. The activities that were conducted at the CRL during this time resulted in legacy contamination. Because of this the Commonwealth (represented by ARPANSA) is accepting responsibility for the waste produced from remediation of the site.
- Approximately 210 drums containing soil and building material contaminated with radium-226 require storage in a licenced radioactive waste storage facility.
- ARPANSA's licensed waste storage area has limited capacity for accepting more waste, however parts of the Yallambie site are under-used and may be adapted for low-level waste storage. A SWOT Analysis (available on request) has been used to identify the preferred option, that has been approved by the EG.
- The first tranche of 72 drums will be stored onsite (as soon as April 2018) as an expansion to the current source licence until the new storage area is completed, pending regulatory approvals.

Scope

The work that needs to be accomplished to deliver a product, service or result with the specified features and functions.

Work to deliver a safe and secure area for appropriate storage of the legacy radioactive waste includes:

- Design of storage area
- Tender process
- Building works
- Regulatory approvals

Transportation and storage of drums

Timing

How long will each stage of the project take to complete?	
Planning:	Complete
Execution:	The first tranche of 72 drums will arrive at Yallambie during April 2018. The Designer was engaged late-March. Design completion by mid-May. Tender process will mean a builder is engaged in June.
Closure:	It is expected that the project will be closed by end of 2018 at the latest.

Funding

How much will the project cost – from costing tool, updated from project proposal phase if any new information is known

Design - s 47G - business

Relocation of Linac Chiller - $30K (aligns with Linac project)

Building - $250K

Transportation – 2 shipments @ $5K each.

How will these costs be funded – does this project require additional funding from what has been approved in branch budgets?

Funding for capital will come from RHS 2017/18 budget (up to $250K).

Smaller costs, such as drums, transport and design, have not been budgeted for in 2017/18 (spent under RSO cost centre).

Work health & safety

Are there WHS implications for our people of either doing or not doing this project? Discuss with WHS advisor.

WH&S adviser has been consulted during this project.

There are no radiological dose implications from the drums (zero dose rate), and radon will be managed in accordance with best-practice.

Transportation will be undertaken with a registered and experienced transport company.

Security

Are there any security implications with this project? Discuss with Agency Security Adviser

Security implications have been discussed and advice incorporated into design of the storage area.

Risk

What are the risks of doing or not doing the project?

The major risks to the Agency are;

- Reputational – ARPANSA must store its radioactive waste safely and securely in accordance with the relevant regulations and also to meet international best practice. It would be reputationally damaging to the Agency to do otherwise. There is some risk that the acceptance of this waste will be perceived badly by the immediate neighbours (see Communication activities below).
- Cost – This is an unbudgeted activity with potential for high costs.

The SWOT analysis has identified these risks, and several options have been excluded due to the potential reputational effect. Costs are still being determined and will be communicated regularly to the EG as more information becomes available.

Legislation

Are there any legislative requirements to consider? If yes, please describe.

The ARPANSA Act and Regulations must be met as regulatory requirements will need to be satisfied.

People

What is the change (define the difference between current and future state)?

The additional radioactive waste will initially be managed as a part of the Yallambie source licence (S0002). The newly constructed storage area will undergo appropriate regulatory scrutiny.

What is the Change Impact (define the impact the change will have, noting there may be multiple impacts for each change)?

The radioactive waste will need to be managed while in storage at the Yallambie facility in accordance with regulatory requirements.

Communications have been coordinated in liaison with P&C (see below).

Capability – do we have the capability required to deliver on this project? If not, what is the plan for obtaining it?

Yes

Capacity – do we have the available capacity to deliver on this project? If not, what is the plan for obtaining it

Yes

Engagement

Communications plan

Consultation

Consultations have been held with the Staff Consultative Forum (SCF), OCEO (on Communications), groups impacted by Linac downtime, Agency Security and ARPANSA WHS. A lengthy discussion was held at the SMC on communication externally (see next paragraph). These consultations are ongoing.

Communication activities

There are no community awareness opportunities relating to this item.

Consultation with the OCEO Communications team and the SMC have determined that this activity can be considered to be 'business as usual'. As such, external communications are not recommended.

Communications with staff have been held via ISAAC, with several staff taking the opportunity to discuss the project one-to-one. No staff have expressed discomfort with the proposal at this stage.

Staff communication is ongoing, and has been coordinated in liaison with P&C.

A Talkshop will be given to update staff on the current status before the first tranche of drums is delivered.

Behavioural change management plan

The storage area will be safe and secure and appropriately labelled for staff. No behavioural change will be required.

Management of the waste will be undertaken by the RSO consistent with current source licensing.

Consultation/collaboration

Have we consulted with all of the relevant people?

See above (communication).

Are there any opportunities to work with other parts of the agency?

Collaboration has been undertaken with RHS (MERS & RPS) and the RSO.

Interdependencies

Pre-project completion interdependencies – are we waiting for another project to be completed before this project can begin?

No.

Consideration needs to be given to the timing of the Linac project.

Post-project completion interdependencies – does another project rely on the successful completion of this project?

No.