From: Andrew Clegg
To: Marcus Grzechnik

Cc: Anthony Ainsworth; Gillian Hirth

Subject: SCOPE - Project Brief - Waste Storage - Yallambie 29-11-2017 [SEC=UNCLASSIFIED]

Date: Wednesday, 29 November 2017 4:55:27 PM

Attachments: SCOPE - Project Brief - Waste Storage - Yallambie 29-11-2017.docx

Hi Marcus,

As discussed, please find attached scope that I was intending to use for obtaining a building design quotation.

It needs to be circulated for comment/input.

Regarding stakeholders - I was intending to request a review from the following:

Stephen Long – RHS, 47E - operations

Shane – IM, Martin Legal, Tony – RHS, WHS and RSO – Peter Taylor, Silvio – ESS. Please let me know if there are any more etc and then I will circulate the draft for comment/input.

Thanks

Andrew Clegg

Facilities Manager

Australian Radiation Protection and Nuclear Safety Agency

619 Lower Plenty Road, Yallambie, VIC 3085, AUSTRALIA

Mobile 04 1864 5596

email andrew.clegg@arpansa.gov.au

http://www.arpansa.gov.au



Project Brief & RFQ- Waste Storage Area Yallambie

Project Name:	Waste Storage Area - Yallambie				
Date:	29/11/2017	Release:	DRAFT FOR COMMENT		
Author:	A.Clegg				
Owner:	A.Clegg				
Container:	ТВА				

Revision Date	Previous Revision Date	Summary of Changes	Changes Marked
16/11/2017	V0	Draft	-
29/11/2017	V1	Draft for Comment & Stakeholder engagement	-

Project Definition:

The ARPANSA Yallambie Facility is located at 619 Lower Plenty Road, Yallambie, Vic 3085. It is proposed to create a Waste Storage Area at this site located in the rear ground floor 47E - operations Some minor construction works are required to increase the size and capacity of the proposed waste storage area. These works are broadly to extend the internal block wall of the Modular Room into the 47E - operations

Request for Quotation (RFQ):

A quotation is required to provide a detailed design and documentation to allow sourcing of 3 quotations from builders to fulfil ARPANSA governance requirements. Quotation due 15 December 2017*.

The quotation should include:

- Production of Drawings (Both .dwg and .pdf format) for tender/construction and as-built issues.
- Production of a Scope of works for builder
- Allowance for the Designer to liaise with Building Surveyor and arrange permit documentation for ARPANSA
- Design to comply with Commonwealth Requirements including safety in design.

- Confirmation that floor loadings would be adequate.
- Design issue date 15/01/2018*
- Final inspection of construction with ARPANSA and assistance with defect listings.

Project Functionality:

The proposed waste storage area in the storage area in the storage area in the storage are of the 44 gallon type drums. These will be transported to ARPANSA on "Chep Type" pallets. Each pallet will contain 4 drums. Each drum is rated at XXX kg* and mass of contents will not exceed this. A detailed drum manifesto (Via ANSTO) will be available with drum referencing contents and weights. ARPANSA will take ownership of drum and contents. This information is separate to this document. For the purposes of project design and construction the maximum drum loading of XXX kg* shall be assumed.

The waste storage area in the \$47E - operations will require removal of existing equipment, sealing of floors and wall penetrations and painting. The final arrangement will include installation of air flow, appropriate locking, local alarms and shelving to accommodate drums.

Drum configuration inside the proposed expanded \$ 47E - operations new Waste Storage Room is for:

- A lower level of drums on pallets to be mounted on the concrete floor.
- A second higher level is proposed to be mounted on shelving directly above the lower level of drums.
- Drum location and placement is to facilitate regular visual inspections, air circulation and accessibility for any future drum/pallet handling via a forklift.

Building Changes:

No Change:

Door from Plant **S** 47**E** - **operations** (Electric kara lock)

Courtyard

Basement Linac area

Plant Room Ramp

Internal roof above \$ 47E - operations to be extended across new wall.

Changes:

Extend <mark>s 47E - operations</mark> — Refer Attachment A.

Document title 2 of 18

^{*} Requires confirmation by Project Manager (MG).

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Engineering consultant engagement and report for core drilling and floor loadings and wall strength for proposed drums and racking.

Core drilling for chiller unit pipe rerouting

Remove data and electrical cable trays.

New s 47E - operations walls.

Internal roof above modulator room to be extended across new walls.

Seal wall and floor penetrations. (Leaving space for data cable runs and draw wires. Suggested approach is inserting steel bridge to maintain cable route and pour/seal with cement.

Ceiling, wall and floor caul seal, prep and paint.

Chiller:

Existing Linac Chiller Unit MTA EVO 051 (Located in \$47E - operations:

- Relocation/recommissioning and Split system pipe rerouting. Location in cooling tower area Level 1)
- Install 3 phase outdoor switched socket switchable for Chiller Unit (MTA EVO 051) 7.90kW
- Install basic galvanised iron / colour-bond roof in cooling tower area covering. Function is to cover Chiller Unit (MTA EVO 051)
- Positioning allocation to leave adequate space for a further new linac similar chiller unit to be install adjacent in separate project during April – June 2018.
- Supply/install of piping, Armaflex insulation associated with Chiller relocation

Fire Systems:

Fire Systems Upgrades where required for compliance (Consolidation of alarms, out of date sprinkler head replacement, thermal and smoke detector replacement if necessary).

If necessary upgrades of legacy for present day code compliance).

Building Certifier (including Fire Systems)

Security:

Security Systems – TBA – requires input.

Document title 3 of 18

Mointoring Alarms:

Install 3 wireless Radon detectors. Position to be discussed with ARPANSA. (Corentium Pro Airthings units) Detectors). requires confirmation (SL input).

Electrical:

Install - 3 Phase weather proof supply suitable for 7.9kW installed in L1 Cooling Tower area.

Retain existing GPOs in original s 47E - operations areas where possible. No further GPO's to be installed in s 47E - operations

Replace s 47E - operations Lighting with energy efficient LED lighting. One way switching if one door.

All circuits shall be labelled. All switches and GPO's shall be labelled with the source distribution board number and circuit number. (Eg "DBU1 – CB 23")

Wiring to be completed at AS3000 with a certificate of Electrical Safety for any works provided.

Ventilation:

No heating or cooling requirements – Air flow only.

Air Conditioning review and report on venting arrangements and airflow changes. Proposed to have design 6 air changes an hour with 5 l/s. per sq m floor area to comply with AS/NZS 1668.

Air Supply fans supply/install. Two air supply units located on ground floor (two units specified for redundancy). operation to be installed to existing building Building Management System(BMS) system with push local and SMS alarm notifications.

One exhaust vent only (no fan)located at ceiling level at opposite site of room. Exhaust fan final venting via roof and shall be weatherproof. (Flashing sealing around supply and exhaust penetrations).

Fire Systems:

To be configured to suit occupancy and should be consistent with previous stages and also building purpose eg exit lights, fire extinguishers, smoke detectors, sprinklers as appropriate.

Document title 4 of 18

Data/Alarms:

IM (SLP to review and add any input).

Alarm to BMS as detailed in "Ventilation" section.

Floor Coverings:

Sealed and painted concrete floor finish. Colour - Grey.

Doors

One door to remain into plant room ramp area. Functionality - small forklift and personell access.

To be confirmed as compliant with Building Code. If non-compliant designer to provide economic solution.

Building Code

Builders to comply with the Australian Building and Construction Commission as per work for Commonwealth entities. web link - https://www.abcc.gov.au/building-code/funding-entities.

Construction Access:

- Rear Basement double secure door via plant room ramp to s 47E operations
- Ramp to be a common or shared space for staff and maintenance contractors.space
- Construction zone anticipated to be from the door from plant room ramp to \$ 47E operations
- Appropriate signage/barrier/temporary hording is anticipated in the state of the construction area for safety..
- Work to be completed in business hours. 0700 1700 Monday to Friday.
- Note Shutdown period of 22/12/2017 to 4/01/2017

Health & Safety Considerations

Document title 5 of 18

As is typical for this age of building asbestos is present in some areas. The ARPANSA asbestos register is included for inspection.

Most electrical circuits are well labelled. However all electrical circuits should be tested to confirm source and state. Please note that ARPANSA require any ceiling ceiling grid should be inspected and tested to ensure during construction works that this does not become electrically energised/live.

Fire and smoke detector isolations, augmentations and re commissioning is via written approval from ARPANSA Facility Manager. 5 days notice is requested for large non routine works.

Security:

Refer Attachment D: Construction Access & Security – Yallambie.

Records:

ARPANSA Records - Hard Copy Facility drawings are available for inspection and a copy can be provided electronically. However this is by person and by arrangement.

Service Provider Records:

These remain the property of ARPANSA at all times (both .dwg and .pdf).

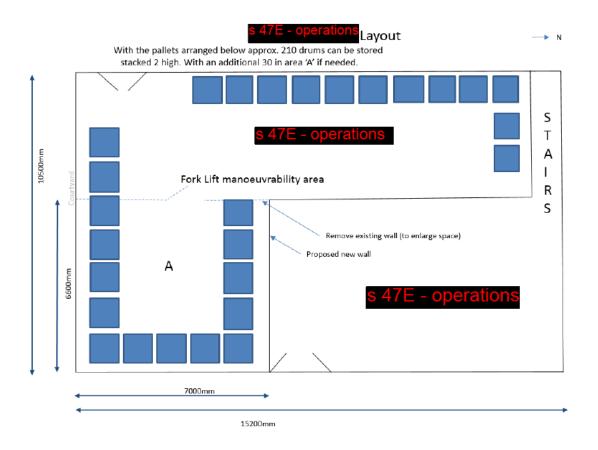
Electronic files in .dwg and .pdf file formats shall be provided to client ARPANSA at the following stages (i) Tender/Quote (ii) Issued for Construction Stage & (iiI) As-Built Stage

Document title 6 of 18

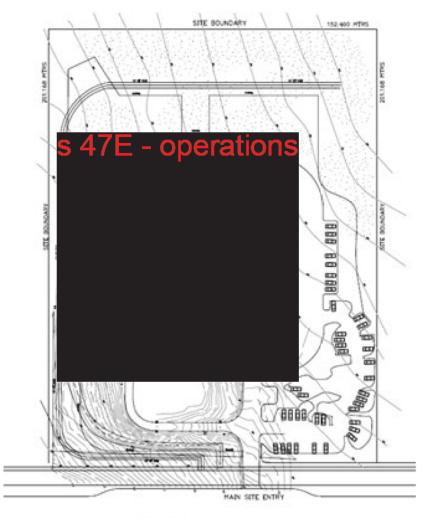




Attachment A - Proposed Area

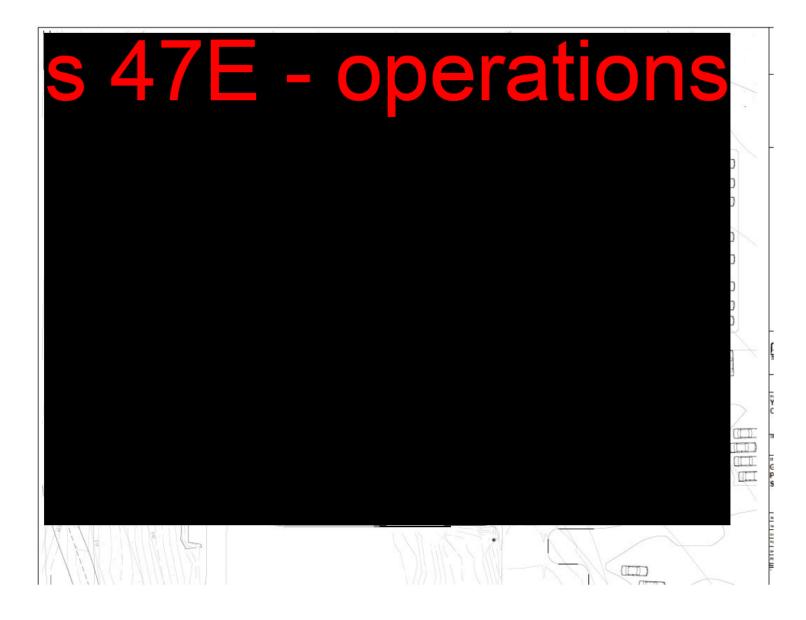


Attachment B - General Area:



LOWER PLENTY ROAD

Document title 8 of 18

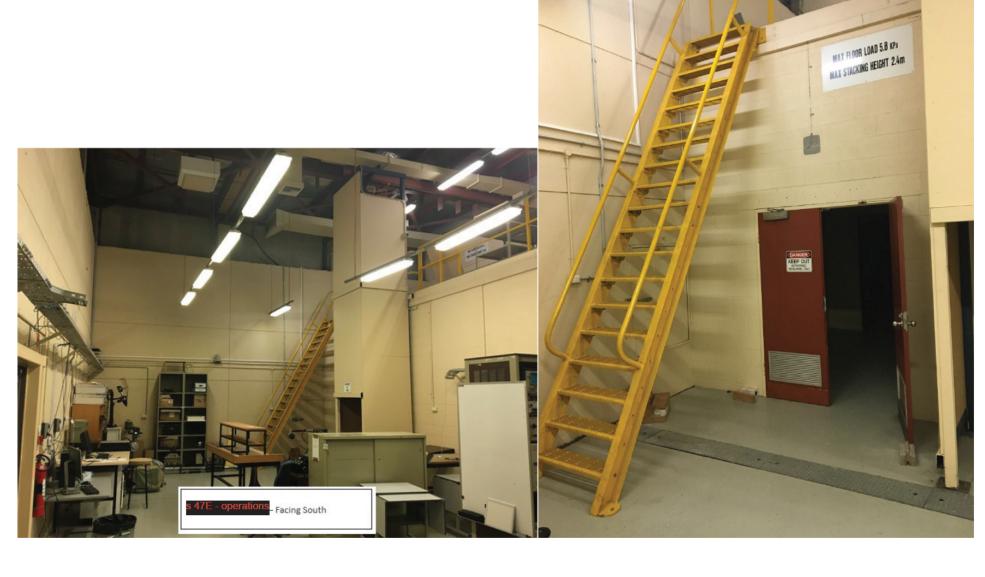


Document title 9 of 18

s 47E - operations

Attachment C – Photographs:

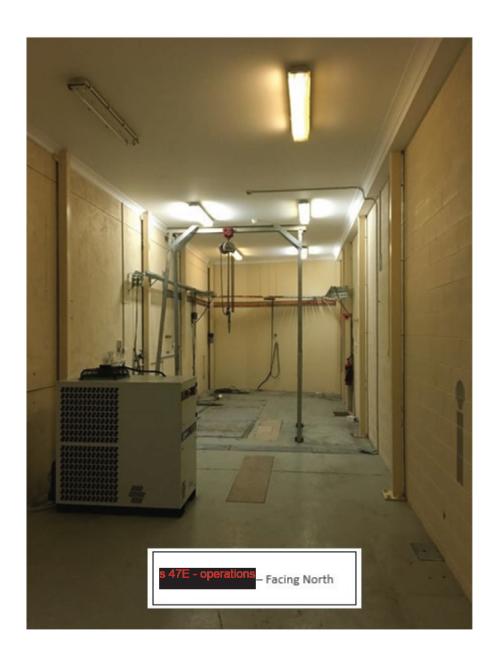
Document title 10 of 18



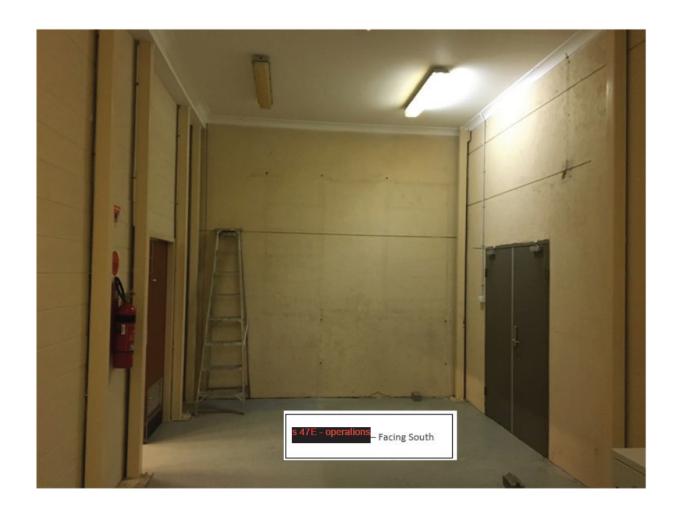
Document title 11 of 18



Document title 12 of 18



Document title 13 of 18



Document title 14 of 18



Document title 16 of 18



Document title 17 of 18





Attachment D

Construction Access & Security - Yallambie

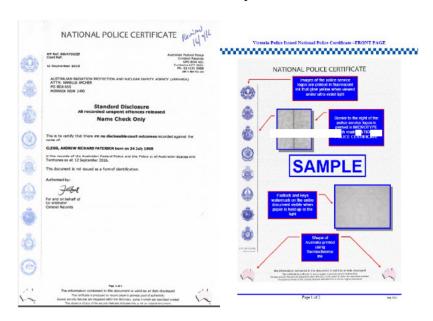
- Construction site to be labelled and have a clear demarcation zone starting from Level 1 adjacent to stairs.
- Demarcation zone between construction zone and office space.
- · Basement area and lift space will be a shared space with construction staff and office staff
- Lift to have proactive protection lining and L 1 door frames installed to ensure no damage occurs.
- Contractors to have their nominated Site Manager on site at all time. (Or appointed delegate).

Site Manager and all other Construction personnel:

Includes main contractor staff and subcontractors.

- All to be nominated including subcontractors.
- Photo ID required to be presented prior to project start and sighted on attendance.
- Required to have a current "Victoria Police Issued National Police Certificate" (refer attachment A below).
- An alternative online Police History Check is acceptable (NCC/CV Check/Fit for Work) however care needs to be exercised as these can expire.
 - (If the main contractor's nominated subcontractor is substituted. ARPANSA is to be notified. In this case access for this person will be via an escort at all times by an employee of the same company).

Attachment A - "Victoria Police Issued National Police Certificate".



From: Gillian Hirth

To: Marcus Grzechnik

Cc: Andrew Clegg; Anthony Ainsworth

Subject: Re: SCOPE - Project Brief - Waste Storage - Yallambie 29-11-2017 [SEC=UNCLASSIFIED]

Date: Thursday, 30 November 2017 6:31:53 AM

Hi Marcus

We've consulted reasonably well before proceeding down this pathway and most of EG have a level of awareness that we are planning to store onsite. As far as options, we really only had the state of operations or Yallambie. We decided whilst this might be more expensive up front the longer term benefit of control and fewer management overheads was beneficial.

I'm happy to provide info as required.

Thanks Gillian

Sent from my iPhone

On 29 Nov 2017, at 22:08, Marcus Grzechnik < <u>Marcus.Grzechnik@arpansa.gov.au</u>> wrote:

Hi G,

No worries.

I foresee we will be asked if we have considered all options - everyone will have an idea, and we need to have the answers.

I'll chat with Andrew on what has come before and we may need to huddle before release for comment.

Andrew, do we have a timescale for release?

M

Sent from my iPhone

On 29 Nov 2017, at 9:56 pm, Andrew Clegg <andrew.clegg@arpansa.gov.au> wrote:

Hi Marcus,

Re: agree, he is one of the key stakeholders to manage for this project. Took the opportunity and mentioned it to today. This was just in passing really - particularly the extension of the store 47E - operations

I wasn't sure he was aware of that recent development either. So he is aware of it now. Would you be able to assist with arranging a more formal briefing? I am happy to support if required. Possibly a SCF session would be required also.

Regards Andrew Clegg Facilities Manager ARPANSA 0418 645 596

On 29 Nov 2017, at 5:02 pm, Marcus Grzechnik < Marcus.Grzechnik@arpansa.gov.au > wrote:

Hi Andrew,

I think that we possibly need to include . Is he aware of the proposed area? Also, do we need to include Reg Branch or is this too soon? Jim Scott?

Marcus

From: Andrew Clegg

Sent: Wednesday, 29 November 2017 4:55 PM

To: Marcus Grzechnik

< Marcus. Grzechnik@arpansa.gov.au >

Cc: Anthony Ainsworth

<a href="mailto:Gillian Hirth

< Gillian. Hirth@arpansa.gov.au>

Subject: SCOPE - Project Brief - Waste Storage - Yallambie 29-11-2017 [SEC=UNCLASSIFIED]

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Thanks

Andrew Clegg

Facilities Manager

Released by ARPANSA under FOI

Australian Radiation Protection and Nuclear Safety Agency

619 Lower Plenty Road, Yallambie, VIC 3085, AUSTRALIA

Mobile 04 1864 5596

email andrew.clegg@arpansa.gov.au

http://www.arpansa.gov.au

From: Gillian Hirth
To: Marcus Grzechnik
Cc: Tone Doyle; Andrew Clegg

Subject: RE: Waste Store Expansion - SWOT Analysis [SEC=UNCLASSIFIED]

Date: Monday, 18 December 2017 11:25:11 AM

Attachments: SWOT - waste storage expansion GH.DOCX

image002.png image003.png image004.png

Hi Marcus,

I've added some comments. Happy to discuss.

Cheers, Gillian

From: Marcus Grzechnik

Sent: Wednesday, 13 December 2017 3:04 PM **To:** Gillian Hirth <Gillian.Hirth@arpansa.gov.au>

Cc: Tone Doyle <tone.doyle@arpansa.gov.au>; Andrew Clegg <andrew.clegg@arpansa.gov.au>

Subject: Waste Store Expansion - SWOT Analysis [SEC=UNCLASSIFIED]

Hi Gill (cc others for info but comments/edits are welcome),

Please find attached the updated SWOT analysis for the expansion of ARPANSA's low-level waste holdings as discussed this morning.

I've considered five options, of which two are clearly superior. These are;

- Expansion of the current state of a quote on design has been sent out today. Whilst it would minimise disruption (the room is empty), time and cost are two significant threats to this option.
- Use of 47E operations area. This would involve consolidation of material in the 47E operations and subsequent relocation into the relocation of the may be required before relocation to maximise the space.

If you are satisfied with this analysis I'd be happy for it to be distributed to EG, but we also need to consider CM's position in taking the regulatory decision.

Additionally, are you happy that I can approach RSB to initially discuss both options, approvals required and the question of transport I would like to discuss any 'deal breakers' for either option before we invest further time and possibly money.

With transport, my assumption is that once it leaves Melbourne Uni we 'own' it, and therefore are responsible for transport and associated costs. I'd like to determine who and how we can undertake the transport and beginning to put this into place.

Finally, Thomas is in the office until fairly late this afternoon – I've notified him that a communication to staff will possibly be coming directly from you.

Thanks very much,

Released by ARPANSA under FO

Dr Marcus Grzechnik

Director

Monitoring and Emergency Response Section

Australian Radiation Protection and Nuclear Safety Agency

619 Lower Plenty Road, Yallambie, Victoria, 3085 Australia

Phone: +61 3 9433 2292 | **Mobile:** +61 422 351 516

Email: Marcus.Grzechnik@arpansa.gov.au

http://www.arpansa.gov.au



Option	Strengths	Weaknesses	Opportunities	Threats	Assessment
Use of an	Construction not required	Could be more expensive	Nil	Sites are currently not	This was initially thought
existing		long-term		able to receive waste	to be a good options,
site	Likely least expensive				however upgrades of
	short-term option	Unpredictable		Waste could be returned	s 47E - operations are
				at any time, and er	currently required in
		ARPANSA does not have		ongoing costs required	order to store the waste
		control of the waste			
				Possible reputational	This is not a preferred
		Interim storage required		damage if ARPANSA waste	option
		while facilities are being		is held at a facility not	
		upgraded		considered international	
				best practice	
		Significant transport			
		distances required.			
		r 175 morrillon			
		Dependent on			
		timeframes for			
		negotiation agreements			
		and obtaining other			
		regulatory approvals.			
Structure	Consolidation of most of	Extra security	Extra space can be	Reputational risk if not a	It is difficult to go past the
within	ARPANSA waste to one	required Facility works to	factored in if waste	best practice facility	security and reputational
ARPANSA	area within building	meet WHS and Security	increases or return of		risk of this option
Grounds (e.g.	footprint.	standards required (one	waste currently held at	Reputational risk with	
shed,	Consolidation of ARPANSA	off cost)	is required.	ARPANSA neighbours	This is not a preferred
container,	waste on the one site.			l	option
etc.)	4884404	Ventilation and	Space for	Not considered secure	
	ARPANSA controls &	monitoring more difficult	possible Opportunity to re-	enough by	
	manages waste <u>in</u>	(still possible, however)	packing <u>and</u> to reduce	staff/neighbours	
	accordance with IBP		volume of waste		
	0 1 (() 1110	Question over best			
	Good access for forklifts	practice			

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s 47E - operations	Consolidation of most of	Some verification of area	Opportunity to reclaim	Use of s47E - operations not	Reputationally sound
_	ARPANSA waste to one	of existing building and	unused space within the	deemed appropriate by	option that re-claims
Room	area on the one site	further building (walls)	building footprint	operators/staff	building footprint
	within building footprint.	required		-	a annual of the second
	†	1 - 4 - 11 - 11	Large enough for some	Floor or walls not strong	Quotes to be sought,
	,	Facility works to meet	expansion and stacking of	enough to accommodate	however the risk of time
	ARPANSA controls &	WHS and Security	drums	racks and waste	slippage is very real
	manages waste in	standards required one			
	accordance with IBP	off cost)	Potential to be a best	Possible unreasonable	One of two preferred
			practice storage facility	costs	options
	Already a security	Relocation of	. ,		
	controlled area (will be	required (but was	Opportunity to re-packing	Tight timescale means	
	upgraded appropriately)	required anyway)	and reduce volume of	that design, quote and	
			waste	building may not be	
	Good ramp and height			completed when	
	access for forklifts			ARPANSA takes control of	
				waste	
	Ventilation can be				
	managed			Reputational risk with	
				ARPANSA neighbours	
Basement	Consolidation of most of	Possible Height	Extra space can be	If building works required	Likely to be the lowest
cages –	ARPANSA waste to one	restrictions for forklifts	factored in if waste	impact on building of	cost option. Extremely
current	area within building		increases or return of	possible	likely to be the only
holdings to	footprint.	Not currently a	waste currently held at		option that will meet the
be	Consolidation of ARPANSA		V-V-C - Special Control	If the Security	time limits imposed.
consolidated	waste on the one site			arrangements are not	
and stored in	(within building footprint)	Possibly some extra	Space for possible re-	considered adequate and	Opportunities in storage
s 47E - operations		security required	packing to reduce volume	costs blow out	of archives and utilising
BA C CRES	ARPANSA controls &], ,	wasted building space
	manages waste <u>in</u>		Possible reduction of	Inadequate support from	
	accordance with IBP		s 47E - operations historic	'owners' of materials in	Recommend to explore
			materials		further

Commented [GH1]: Note this might be remov d – or we keep it as it's probably still a risk.

	Ventilation can be managed (area is already ventilated to outside but secure) Low costs as no significant building required		Movement of this store to 347E-operations could mean that paper and electronics may be stored	the cage to consolidate in time	One of two preferred options
Claim ARPANSA Store for Waste Storage	Consolidation of most of ARPANSA waste to one area within building footprint. Consolidation of ARPANSA waste on the one site (within building footprint) ARPANSA controls & manages waste Large area. Space to manoeuvre forklifts. Easy access from the rear of the building (roller door). Ventilation can be managed Very little building may be required	Access for delivery of large equipment/cargo will be impacted and a suitable alternative might not be available. Current store equipment would need to be relocated, impacting on another (smaller) area Specialist areas of store would need to be colocated or re-located Work may need to be undertaken on exterior of building	Potential to consolidate all waste holdings into the one store. Extra space if waste increases or return of waste currently held at Potentially could enhance ARPANSA's reputation in waste management	If there is not an alternative option for the store and deliveries Blowout in projected costs because increased building requirements Displacement of staff (staff are currently in store for a short proportion of the day)	The potential for a consolidated waste store is attractive, however there is a need to 'undo' an area that was purposebuilt for its current function.

s 47E - operations	(ventilation ducting is quite low)			
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From: Andrew Clegg
To: Marcus Grzechnik

Subject: Emailing: Copy of D1727986 ARPANSA-PM-TMP-003_Project Costing [SEC=UNCLASSIFIED]

Date: Thursday, 11 January 2018 4:45:09 PM

Attachments: Copy of D1727986 ARPANSA-PM-TMP-003 Project Costing.xlsx

Hi Marcus

As requested this is the estimate on the original Chiller room source construction works as it was deemed that the 100 or so drums could be accommodated. (Iay have HPE'd it also)

Some costs in here could be useful. Let me know if we need anything else.

Regards

Andrew

Name	Labour rate			
APS1	56,516			
APS2	64,693			
APS3	74,405			
APS4	82,758			
APS5	89,290			
APS6	100,984			
EL1	125,651	129,420.32	3,769.52	0.03
EL2 lower	153,265			
EL2 upper	174,242			
SES1	220,571			
SES2	281,854			
SES3	379,357			

			Ĭ.
t Build up			
5,152	nate 13/09/2017 Ceiling, wall and floor prep and paint	\$5152.00 Fixed (doesn t include floor plates and caulk sealing)	
1,480	Supply and install of 8 LED Battens as direct replacement for Flouro s		(1)
6,137	Corentium Pro Airthings (Radon Detectors) 3 of	\$6137.00 Fixed	$\mathbf{\Psi}$
5,000	• s 47G - business		
6,463	• Exhaust fan <mark>s 47G - business</mark>	\$6463.00 Fixed	0
2,070 3,000	 Flashing sealing around Exhaust and intake penetrations Core drilling for pipe rerouting 	\$2070.00 Arbitrary \$3000.00 Fixed	
3,000	Supply/install of piping, Armaflex insulation in prep for Chiller	\$3000.00 FIXEU	
10,300	relocation	\$10300.00 Fixed	
8,090	 Chiller relocation/recommissioning and Split system pipe rerouting 	\$8090.00 Fixed*	
1,890	 Smoke detector upgrade/assignment to main FIP 	\$1890.00 Arbitrary	
	• s 47G - business		
10,400	 *No allowance has been made for a supplementary circulating pump should one be requi 	ired. Our helief is that all will be well and an ungrade will not be required.	
	s 47G - business	ired. Our belief is that all will be well and all upgrade will not be required	
	ARPANSA Facilities additional items		
5,000	s 47G - business		
5,000			
30,000	s 47G - business	High Level Estimate at this stage only TBC	
20,000	s 47G - business High Level Estimate at this stage only TBC		
119,982			ANA

Released by

ARPANSA-PM-TMP-003

General	
Project number (if known):	
Idea/Project name:	New Waste Storage Area – Yallambie
Proposer/Project Manager:	Gillian Hirth
Project Owner:	Gillian Hirth
Section:	
Start date:	18/09/2017
End date:	31/12/2017
Duration:	

Labour		FTE		\$\$					
Name	Level	2017/18	2018/19	2019/20	2020/21	2017/18	2018/19	2019/20	2020/21
e.g. Sonia Veldhoven	EL1	0.20	-	-	-	25,884	-	-	-
	EL1					-	-	-	-
						-	-	-	-
						-	-	-	-
Total labour		0.20	-	-	-	25,884	-	-	-

Suppliers expenditure				
Туре	2017/18	2018/19	2019/20	2019/20
Training	-			
IT	-			
Legal Services	-			
Running Expenses	-			
Domestic travel	-			
International travel	-			
Contractors/consultants	119,982			
Total operating expenditure	119,982	-	-	-

Capital expenditure				
Item	2017/18	2018/19	2019/20	2019/20
Capital item #1				
Capital item #2				
Total capital expenditure	-	-		-

External revenue				
Customer	2017/18	2018/19	2019/20	2019/20
Customer #1	-	-	-	-
Customer #2	-	-	-	-
Total external revenue	-	-	-	-

Total annual project cost (net of income) 145,866	e) 145.866
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Project Costing v1.0 ARPANSA-PM-TMP-003