

Confined Spaces

Mirvac Retail

Moonee Ponds Central

September 2011

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1. Introduction

This report presents the findings of confined space assessments completed during August and September 2011. Cameron Hunter from Vital Safety Pty Ltd conducted the assessments in consultation with Operations Managers at the following Mirvac shopping centres:

- Como Centre
- · Gippsland Centre
- Moonee Ponds Central
- · Riverside Quay
- · 380 StKilda Road
- Waverley Gardens

2. Purpose

The purpose of this assessments were to:

- Identify potential confined spaces as defined in Mirvac Group Confined Space Entry Procedure
- Provide a site register of spaces
- Provide a hazard identification and risk assessment for spaces classed as Confined Space

3. Findings

Each space was assessed to determine the potential for specific, defining hazards and classed as either:

- Confined Space Confined Space Regulations apply
- Restrictive Space Manage by safe systems of work
- Standard work area Manage by safe systems of work
- Non-entered space A space not intended or likely to be entered

The hazards that were considered when defining spaces were:

- 1. the space is enclosed or partially enclosed space, and
- 2. is not designed or intended primarily to be occupied by a person; and
- 3. is, or is designed or intended to be, at normal atmospheric pressure while any person is in the space; and
- 4. is or is likely to be a risk to health and safety from:
- a) an atmosphere that does not have a safe oxygen level, or
- b) contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion, or
- c) harmful concentrations of any airborne contaminants, or
- d) engulfment



A confined space meets condition 1, 2, 3 and 4.

A restricted space meets conditions 1, 2 and 3 only. Restricted spaces are not defined in Regulations or Australian Standards. Restricted spaces may become confined spaces when tasks are conducted within the space which may alter the atmosphere (such as welding, painting or extinguishing a fire).

The register of spaces including classification is attached in Appendix A.

4. Discussion

4.1 Confined space definition

At the time of reporting there were proposed changes to confined space definitions around Australia. The changes formed part of the Harmonisation of Occupational Health and Safety Regulations, co-ordinated by Safe Work Australia. It was proposed that the new definition be adopted 1 January 2012.

Both the Victorian and the Safe Work Australia Confined Space definitions were considered when assessing spaces at the Mirvac shopping centres.

The intent of the confined space definition and regulation is described in the Safe Work Australia, Code of Practice – Confined Spaces:

Confined spaces pose dangers because they usually have poor ventilation which allows hazardous atmospheres to develop quickly, especially if the space is small. The hazards are not always obvious and may change from one entry to the next.

The risks of working in confined spaces include:

- loss of consciousness, impairment, injury or death due to the immediate effects of airborne contaminants
- fire or explosion from the ignition of flammable contaminants
- difficulty rescuing and treating an injured or unconscious person, and
- asphyxiation resulting from oxygen deficiency or immersion in a free-flowing material, such as grain, sand, fertiliser or water

Many of the spaces at the Mirvac shopping centres were classed as Restricted Space. It must be noted that Restricted Spaces may become confined spaces were tasks are conducted within the space which may alter the atmosphere such as:

- Welding
- Applying chemicals for cleaning
- Using internal combustion engines (such as pumps or generators)
- Following a fire

During entry to Restricted Spaces strict safety control measures may be required such as isolation or working in pairs.



Storm water pits with open grate covers vary in the level of risk depending on the depth of the pit. To provide clear direction and avoid confusion all storm water pits were classed as Confined Space.

4.2 Confined Space Signs

According to Victoria OHS Regulations:

An employer must ensure that signs are erected ... in the immediate vicinity of a confined space for any period that—

- (a) work is performed in the confined space; or
- (b) work is performed in preparation for, or completion of, work in the confined space.

Although there is no legal or Mirvac procedural requirement, permanent confined space danger signs should be displayed where there may be confusion or easy access to spaces.

4.3 Confined Space Entry

It was noted that contractors were most likely to be engaged to access spaces classed as Confined Space, such as Grease Interceptor Traps, Sewer and Storm Water Pits. Site managers must ensure that contractors entering confined spaces hold current Confined Space Entry certificates of competency and are familiar with Mirvac Confined Space Entry Procedures and are familiar with potential confined space hazards. Contractors should be issued with a generic confined space assessment for the space they intend to enter. The assessment should be supplemented with a Safe Work Method Statement, specific for the task.

4.4 Standby personnel and retrieval capabilities

There is a regulatory requirement for retrieval plans tailored for each confined space. The retrieval method must be rehearsed to demonstrate that it is effective.

Sites Managers must ensure that contractors entering confined spaces have the equipment and capability to retrieve a person from a confined space and must not rely solely on external emergency services.

Recommended retrieval procedures are included with the confined space assessments.

5. Recommendations

- Provide access to the site confined space register for contractors to reference when planning works.
- Provide confined space risk assessments to personnel accessing confined spaces on site.
- Use an induction checklist for contractors intending to enter confined spaces on site and ensure contractors adhere to Mirvac Group – Confined Space Entry Procedure
- Display permanent Confined Space Danger Signs on spaces where there may be confusion or easy entry.



6. References

- 1. Mirvac Group Confined Space Entry Procedure, MG-CS-HSEP4.09-B-0409
- 2. Victoria Occupational Health and Safety Regulations (2007)
- 3. Draft Code of Practice Confined Spaces, Safe Work Australia (August 2011)
- 4. AS 2865:2009 Confined Spaces, Standards Australia (September 2009)

TABLE OF APPENDICES

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Appendix B - Register of Spaces

Appendix C - Confined Space Risk Assessments



Appendix A - Confined Space Definition

Safe Work Australia, Workplace Health and Safety Regulations (August 2011)

The WHS Regulations define a confined space as an enclosed or partially enclosed space that:

- 1. is not designed or intended primarily to be occupied by a person; and
- 2. is, or is designed or intended to be, at normal atmospheric pressure while any person is in the space; and
- 3. is or is likely to be a risk to health and safety from:
- a) an atmosphere that does not have a safe oxygen level, or
- b) contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion, or
- c) harmful concentrations of any airborne contaminants, or
- d) engulfment

Victoria - Occupational Health and Safety Regulations 2007

Confined Space – means a space in any vat, tank, pit, pipe, duct, flue, oven, chimney, silo, reaction vessel, container, receptacle, underground sewer, well, or any shaft, trench or tunnel or other similar enclosed or partially enclosed structure if the space:

- a) is, or is intended to be, or is likely to be, entered by any person; and
- b) has a limited or restricted means for entry or exit that makes it physically difficult for a person to enter or exit the space; and
- c) is, or is intended to be, at normal atmospheric pressure while any person is in the space; and
- d) contains, or is intended to contain, or is likely to contain
 - i. an atmosphere that has a harmful level of any contaminant; or
 - ii. an atmosphere that does not have a safe oxygen level; or
 - iii. any stored substance, except liquids, that could cause engulfment



Appendix B - Register of Spaces





		Classification	ated	snop	Confined Space	snop	Confined Space	snop	dous	Confined Space	snop	snop	snop	Confined Space	doug
		2	Calculated	Hazardous	Confli	Hazardous	Confli	Hazardous	Hazardous	Confir	Hazardous	Hazardous	Hazardous	Confir	Hazardous
	Question 5D	Is there a risk of Engulfment?		No	Yes	No	Yes	No	No	Yes	No	No	No	Yes	No
ARD CRITERIA	Question 5C	Is there a risk of a harmful concentration e of any airborne contaminant?	0	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes	ON
IDENTIFIED HAZARD CRITERIA	Question 5B	Is there a risk of a harmful contaminants concentration that may cause of any airborne injury from fire contaminant? or explosion?	ither 5A, B, C or	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes	No
A CONTRACTOR OF THE PARTY OF TH	Question 5A		Requires YES to either 5A, B, C or D	No	Yes	No	Yes	No	No	Yes	No	No	No	Yes	No
	Question 4		Requires Yes R	Yes	Yes Yes	Yes	Yes Y	Yes N	Yes	Yes	N sey	Yes	Yes	Yes	Vac
ACTERISTICS	Question 3	Is there is there normal restricted atmospheric means of entry pressure while or exit? a person is in the space?	Requires Yes R	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Vac
PHYSICAL CHARACTERISTICS	Question 2	Is the Space Is intended or not designed in primarily to be o occupied or entered by a person?	Requires No F	No	No	No Y	No Y	No Y	No	No Y	No Y	No	No Y	No ×	>
	Question 1	Is the Space Inerclosed or in partially enclosed?	Requires Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
		e E E		Exhaust plenums			Grease Interceptor Traps	Lift Well	Ceiling Space	Grease Interceptor Traps		Lift Well	Bulkhead	Grease Interceptor Trap	I iff well - 1st Choice Goods I Yes
	Site: Moonee Ponds Central			Carparks	Carparks	Kmart Mall - Upper Carpark Air Handling Units	Kmart Loading Bay	Puckle Mall	Puckle Mall	Coles Loading Bay	Kmart Mall	Kmart Mall	Kmart Mall - Carpark	Kmart Mall - Carpark	Kmart Mail
	Site: M	Reg No. Location	,	S001 Ca	S002 Ca	S003 Kr	S004 Kr	S005 Pt	S006 Pt	S007 Cc	S008 Kr	S009 Kr	S010 Kr	S011 Kr	S012 Kr

Note: Classification of spaces is based on inherent hazards. A Job Safety Environment Analysis (JSEA) is required before entry to confined or hazardous spaces.



Reg No. Space / Location Classification

S001

Exhaust plenums : Carparks

Hazardous



S002

Pump pits : Carparks

Confined Space



S003

Air Handling Units : Kmart Mall -Upper Carpark

Hazardous



S004

Grease Interceptor

Traps : Kmart

Loading Bay

Confined Space





Reg No. Space / Location Classification

S005

Lift Well : Puckle Mall

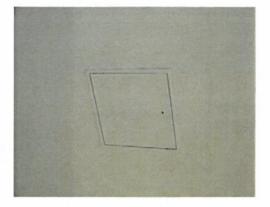
Hazardous



S006

Ceiling Space : Puckle Mall

Hazardous



S007

Grease Interceptor

Traps : Coles Loading Bay Confined Space



S008

Travellator Pits : Kmart Mall

Hazardous



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Reg No. Space / Location Classification

S009

Lift Well: Kmart Mall

Hazardous



S010

Bulkhead : Kmart Mall - Carpark

Hazardous



Grease Interceptor S011

Trap: Kmart Mall - Confined Space Carpark

Lift well - 1st

S012 Choice Goods Lift:

Hazardous

Kmart Mall





Appendix C – Confined Space Risk Assessments

Confined Space Assessment



Printed: 26 September 2011

1. CONFINED SPACE DETAILS:

Item: Storm Water Pits	Equip #:	Assessed: August 2011					
Description:							
Construction: Steel Concrete Plastic	Shape: Rectangular	Cylinder Hopper					
☐ Fibreglass ☐ Rubber lined ☐ Brick lined	Horizontal	✓ Vertical					
	Above	Below ground					
Reasons for entry: Remove blockage or retrieve dropped items							
Alternative method to eliminate entry: Conduct drain clearing an	Alternative method to eliminate entry: Conduct drain clearing and cleaning from outside the pit						
Access/Egress: Method	old / Platform (external) Sca	affold (internal)					
☐ Scaffold access stairs ☐ Ladde	er / step irons	chnical access					
Assessor: Cameron Hunter - Vital Safety Pty Ltd							

Images



2. INHERENT HAZARDS: (Note: task related hazards will be recorded in the Task Hazard Analysis (THA)

MAJOR HAZARDS	DETAIL	SAFETY CONTROL MEASURES
☑ Unsafe Oxygen	Oxygen deplete/displace High oxygen (O2 leak)	Ventilation
Toxic / harmful atmosphere		 Ventilate - Filtered air extraction Ventilate - Use permanent/installed ventilation Ventilate - Natural Monitoring Conduct continuous gas monitoring during entry Test gas levels daily before entry Test for contamination around / under the space Monitor atmosphere outside the space Preparation Cleaning Empty / drain before entry Wash down space before entry
Fire	☐ Flammable gas☐ Flammable liquid☐ Combustible solid☐ Combustible dust	 □ Drain space completely □ Flush lines ☑ Vacuum space before entry □ Other: Additional Protective Clothing & Equipment
⊠ Engulfment or flooding	☑ Product feed☐ Collapse (hung material)☐ Release of material below☐ Bridging (hollow below)	 ☐ Breathing apparatus (airline) ☐ Full face respirator ☐ Powered air respirator (eg. Racal helmet) ☐ Half face respirator / Dust mask
Hazardous material or dangerous goods	☐ Sulphuric Acid ☐ Hydrochloric Acid ☐ Caustic solutions ☐ Toxic heavy metals ☐ Harmful dusts	 ☐ Chemical suit (encapsulated / splash) ☐ Disposable coveralls ☐ Chemical gloves ☐ Leather gloves ☐ Chemical goggles ☐ Dust goggles
☑ Infection	☐ Bacteria ☐ Sharp objects/needles	☐ Chemical boots ☐ Safety Harness
Radiation	☐ Comms antenna or dish☐ Radiation gauges	 ☐ Helmet (with chin strap) ☐ Knee pads (Entrant / Standby) ☐ Additional communication equipment (hardwire / 2-way) ☐ Other:

MAJOR HAZARDS	DETAIL	SAFETY CONTROL MEASURES
Activation of energy	☐ Caught in moving parts ☐ Electrical ☐ Pressure release ☐ Crushing	☐ Isolate power supply ☐ Disconnect drive lines ☐ Connect to Earth Leakage Breaker (outside space) ☐ Use low voltage equipment where possible ☐ Depressurise ☐ Chock or pin equipment
⊠ Fall from heights	☑ Entry / Exit☐ Retrieval☐ Working☑ Open hole (Risk to Standby)	 ☑ Erect a temporary edge rail ☐ Build a temporary platform (scaffold / prefabricated) ☐ Use a work positioning system (harness & lanyard) ☑ Wear fall prevention PPE ☐ Barricade the area to keep others clear
☐ Heat strain / stress	☐ Direct sunlight ☐ High air temperature ☐ Low air flow ☐ High humidity ☐ High operating temp. ☐ Restrictive clothing	 ☐ Allow the space to reach ambient temperature ☐ Schedule work for coolest times where practical ☐ Ventilate with cool air where practical ☐ Rotate work or increase the work:rest ratio ☐ Maintain water intake
☐ Heat or cold burns	☐ High surface temperature ☐ Cold surface temperature	☐ Erect shade over work area ☐ Guard potential hazards ☐ Wear PPE — gloves, coveralls, boots, eye safety ☐ Cool area before entry
Moving plant / vehicles	□ Road near by □ Vehicles loading / unloading	☐ Stop or relocate external works ☐ Display signs and barricades to prevent access
⊠ Slips and trips	☐ Poor lighting ☐ Obstructions or trip points ☐ Head strike points	 ☑ Provide temporary lighting (Extra Low Voltage / EX rated) ☐ Guard or barricade obstructions ☑ Maintain housekeeping / keep work area clear and tidy
Noise		Relocate noise generating equipment Wear hearing protection with internal comms
Other: Manual Handling	Lifting lids	Use load lifting aids Group lifter heavier items

Indicates the consequence is unacceptable and the risk is conceivable

NOTE: ALWAYS REVIEW HAZARDS AND IDENTIFY CHANGES PRIOR TO ENTERING SPACE

Comments:

4. ACCESS / EGRESS AND FIRST RESPONSE EQUIPMENT:

EMERGENCY STEPS - S.C.R.A.M.

1. Stop all work.

Evacuate the space.

DO NOT ENTER A HAZARDOUS ATMOSPHERE

Assess the dangers or nature of the incident

- 2. Call for assistance
- 3. Respond

Assist people to exit the space Initiate First Response (Non-entry retrieval) steps Remove immediate hazards if safe to do so.

- 4. Account for personnel
- 5. Medical Provide 1st Aid treatment

Equipment:

B



Images - Recommended Equipment

FIRST RESPONSE DISCRIPTION / METHOD:

D



Set-up Diagram - Tripod

Note - The standard tripod is free standing and can collapse if lateral force is applied.

Set-up

- Assemble the tripod away from an open manhole or pit.
- Attach the pulley system to the centre anchor point using a triple action carabiner. Orientate the pulley for a downward pull.
- Fully extend the legs of the tripod to maximize overhead height. Adjust leg length if the surface is unlevel.
- Move each leg outward to maximize stability. Restrain legs with the keeper rope or chain (if provided). Anchor or stabilize legs if necessary.
- Erect an edge barrier or assemble a work-restraint system to prevent the standby person from falling into the space.

Retrieval

- 1. Haul on the pulley system to raise the entrant from the space.
- 2. Guide the entrant's head and upper body out of the space.
- 3. Close or cover the manhole and lower the entrant to the ground. (DO NOT LOAD THE TRIPOD SIDEWAYS, TRIPOD MAY TIP.

Confined Space Assessment



Printed: 26 September 2011

1. CONFINED SPACE DETAILS:

Item: Sewer Pits	Equip #:	Assessed: August 2011					
Description: Construction: Steel Concrete Plastic	Shape: Rectangular						
Fibreglass Rubber lined Brick lined	☐ Horizontal ☐ Above	✓ Vertical✓ Below ground					
Reasons for entry: Remove blockage or retrieve dropped item:	3						
Alternative method to eliminate entry: Conduct drain clearing a	Alternative method to eliminate entry: Conduct drain clearing and cleaning from outside the pit						
Access/Egress: Method	fold / Platform (external)	affold (internal)					
☐ Scaffold access stairs ☐ Lade	der / step irons	chnical access					
Assessor: Cameron Hunter - Vital Safety Pty Ltd							

Images



Sewer Pit

2. INHERENT HAZARDS: (Note: task related hazards will be recorded in the Task Hazard Analysis (THA)

MAJOR HAZARDS	DETAIL	SAFETY CONTROL MEASURES
☑ Unsafe Oxygen	○ Oxygen deplete/displace ☐ High oxygen (O2 leak)	Ventilation ⊠ Ventilate - Forced air blower
☑ Toxic / harmful atmosphere		 Ventilate - Filtered air extraction Ventilate - Use permanent/installed ventilation Ventilate - Natural Monitoring Conduct continuous gas monitoring during entry Test gas levels daily before entry Test for contamination around / under the space Monitor atmosphere outside the space Preparation Cleaning Empty / drain before entry Wash down space before entry
⊠ Fire	☐ Flammable gas☐ Flammable liquid☐ Combustible solid☐ Combustible dust	 □ Drain space completely □ Flush lines ☑ Vacuum space before entry □ Other: Additional Protective Clothing & Equipment
□ Engulfment or flooding	☑ Product feed☐ Collapse (hung material)☐ Release of material below☐ Bridging (hollow below)	 ☐ Breathing apparatus (airline) ☐ Full face respirator ☐ Powered air respirator (eg. Racal helmet) ☐ Half face respirator / Dust mask
Hazardous material or dangerous goods	☐ Sulphuric Acid ☐ Hydrochloric Acid ☐ Caustic solutions ☐ Toxic heavy metals ☐ Harmful dusts	 ☐ Chemical suit (encapsulated / splash) ☐ Disposable coveralls ☐ Chemical gloves ☐ Leather gloves ☐ Chemical goggles ☐ Dust goggles
	☑ Bacteria☑ Sharp objects/needles	☐ Chemical boots ☐ Safety Harness
Radiation	☐ Comms antenna or dish☐ Radiation gauges	 ☐ Helmet (with chin strap) ☐ Knee pads (Entrant / Standby) ☐ Additional communication equipment (hardwire / 2-way) ☐ Other:

MAJOR HAZARDS	DETAIL	SAFETY CONTROL MEASURES
Activation of energy	☐ Caught in moving parts ☐ Electrical ☐ Pressure release ☐ Crushing	☐ Isolate power supply ☐ Disconnect drive lines ☐ Connect to Earth Leakage Breaker (outside space) ☐ Use low voltage equipment where possible ☐ Depressurise ☐ Chock or pin equipment
⊠ Fall from heights	☑ Entry / Exit☐ Retrieval☐ Working☑ Open hole (Risk to Standby)	 ☑ Erect a temporary edge rail ☐ Build a temporary platform (scaffold / prefabricated) ☐ Use a work positioning system (harness & lanyard) ☑ Wear fall prevention PPE ☐ Barricade the area to keep others clear
☐ Heat strain / stress	☐ Direct sunlight ☐ High air temperature ☐ Low air flow ☐ High humidity ☐ High operating temp. ☐ Restrictive clothing	☐ Allow the space to reach ambient temperature ☐ Schedule work for coolest times where practical ☐ Ventilate with cool air where practical ☐ Rotate work or increase the work:rest ratio ☐ Maintain water intake
Heat or cold burns	☐ High surface temperature ☐ Cold surface temperature	☐ Erect shade over work area ☐ Guard potential hazards ☐ Wear PPE — gloves, coveralls, boots, eye safety ☐ Cool area before entry
Moving plant / vehicles	☒ Road near by☒ Vehicles loading / unloading	☐ Stop or relocate external works☑ Display signs and barricades to prevent access
⊠ Slips and trips	☐ Poor lighting ☐ Obstructions or trip points ☐ Head strike points	 ☑ Provide temporary lighting (Extra Low Voltage / EX rated) ☐ Guard or barricade obstructions ☑ Maintain housekeeping / keep work area clear and tidy
Noise		Relocate noise generating equipment Wear hearing protection with internal comms
Other: Manual Handling	Lifting lids	Use load lifting aids Group lifter heavier items

Indicates the consequence is unacceptable and the risk is conceivable

NOTE: ALWAYS REVIEW HAZARDS AND IDENTIFY CHANGES PRIOR TO ENTERING SPACE

Comments:

4. ACCESS / EGRESS AND FIRST RESPONSE EQUIPMENT:

EMERGENCY STEPS - S.C.R.A.M.

A

1. Stop all work. Evacuate the space.

DO NOT ENTER A HAZARDOUS ATMOSPHERE

Assess the dangers or nature of the incident

- 2. Call for assistance
- 3. Respond

Assist people to exit the space Initiate First Response (Non-entry retrieval) steps Remove immediate hazards if safe to do so.

- 4. Account for personnel
- 5. Medical Provide 1st Aid treatment

Equipment:

B



Images - Recommended Equipment

FIRST RESPONSE DISCRIPTION / METHOD:

D



Set-up Diagram - Tripod

Note - The standard tripod is free standing and can collapse if lateral force is applied.

Set-up

- · Assemble the tripod away from an open manhole or pit.
- Attach the pulley system to the centre anchor point using a triple action carabiner.
 Orientate the pulley for a downward pull.
- Fully extend the legs of the tripod to maximize overhead height. Adjust leg length if the surface is unlevel.
- Move each leg outward to maximize stability. Restrain legs with the keeper rope or chain (if provided). Anchor or stabilize legs if necessary.
- Erect an edge barrier or assemble a work-restraint system to prevent the standby person from falling into the space.

Retrieval

- 1. Haul on the pulley system to raise the entrant from the space.
- 2. Guide the entrant's head and upper body out of the space.
- 3. Close or cover the manhole and lower the entrant to the ground. (DO NOT LOAD THE TRIPOD SIDEWAYS, TRIPOD MAY TIP.

Confined Space Assessment

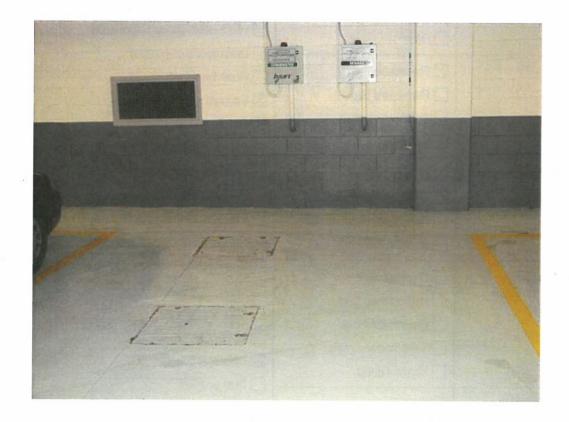


Printed: 26 September 2011

1. CONFINED SPACE DETAILS:

Item: Pump Pits	Equip #:	Assessed: August 2011				
Description: Construction: Steel Concrete Plastic Fibreglass Rubber lined Brick lined	Shape: Rectangular Horizontal Above	Cylinder Hopper Vertical Below ground				
Reasons for entry: Pump repair or maintenance						
Alternative method to eliminate entry: Lift pump from pit and repair outside the pit						
Access/Egress: Method	affold / Platform (external)	affold (internal)				
☐ Scaffold access stairs ☒ Lad	lder	chnical access				
Assessor: Cameron Hunter - Vital Safety Pty Ltd						

Images



2. INHERENT HAZARDS: (Note: task related hazards will be recorded in the Task Hazard Analysis (THA)

MAJOR HAZARDS DETAIL		SAFETY CONTROL MEASURES		
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⊠ Fire	☐ Flammable gas☐ Flammable liquid☐ Combustible solid☐ Combustible dust	 □ Drain space completely □ Flush lines ☑ Vacuum space before entry □ Other: Additional Protective Clothing & Equipment 		
 ☑ Engulfment or flooding ☑ Product feed ☐ Collapse (hung material) ☐ Release of material below ☐ Bridging (hollow below) 		 □ Breathing apparatus (airline) □ Full face respirator □ Powered air respirator (eg. Racal helmet) □ Half face respirator / Dust mask 		
Hazardous material or dangerous goods	Sulphuric Acid Hydrochloric Acid Caustic solutions Toxic heavy metals Harmful dusts	 ☐ Chemical suit (encapsulated / splash) ☑ Disposable coveralls ☐ Chemical gloves ☐ Leather gloves ☑ Chemical goggles ☐ Dust goggles 		
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Radiation	☐ Comms antenna or dish☐ Radiation gauges	 ☐ Helmet (with chin strap) ☐ Knee pads (Entrant / Standby) ☐ Additional communication equipment (hardwire / 2-way) ☐ Other: 		

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Images - Recommended Equipment

FIRST RESPONSE DISCRIPTION / METHOD:

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Set-up Diagram - Tripod

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- 3. Close or cover the manhole and lower the entrant to the ground. (DO NOT LOAD THE TRIPOD SIDEWAYS, TRIPOD MAY TIP.

Confined Space Assessment



Printed: 26 September 2011

1. CONFINED SPACE DETAILS:

Item: Grease Interceptor	Trap	Equip #:	Assessed: August 2011					
Description:	Description:							
Construction: Steel	Concrete Plastic	Shape: F	Rectangular Cylinder Hopper					
☐ Fibreglass [Rubber lined Brick I	ined	Horizontal 🛛 Vertical					
			Above Below ground					
		8						
Reasons for entry: Cleani	ng or repairs		a d					
Alternative method to elim	Alternative method to eliminate entry: Pressure wash and clean from outside the pit							
Access/Egress: Method	Climb in / out	Scaffold / Platform (external) Scaffold (internal)					
	☐ Scaffold access stairs		☐ Technical access					
Assessors: Cameron Hunter - Vital Safety Pty Ltd								

Images



2. INHERENT HAZARDS: (Note: task related hazards will be recorded in the Task Hazard Analysis (THA)

MAJOR HAZARDS	DETAIL	SAFETY CONTROL MEASURES
☑ Unsafe Oxygen	Oxygen deplete/displace High oxygen (O2 leak)	Ventilation ☑ Ventilate - Forced air blower
Toxic / harmful atmosphere		 Ventilate - Filtered air extraction Ventilate - Use permanent/installed ventilation Ventilate - Natural Monitoring Conduct continuous gas monitoring during entry Test gas levels daily before entry Test for contamination around / under the space Monitor atmosphere outside the space Preparation Cleaning Empty / drain before entry Wash down space before entry
⊠ Fire	☐ Flammable gas☐ Flammable liquid☐ Combustible solid☐ Combustible dust	 □ Drain space completely □ Flush lines ☑ Vacuum space before entry □ Other: Additional Protective Clothing & Equipment
⊠ Engulfment or flooding	☑ Product feed☐ Collapse (hung material)☐ Release of material below☐ Bridging (hollow below)	 □ Breathing apparatus (airline) □ Full face respirator □ Powered air respirator (eg. Racal helmet) □ Half face respirator / Dust mask
Hazardous material or dangerous goods	☐ Sulphuric Acid ☐ Hydrochloric Acid ☐ Caustic solutions ☐ Toxic heavy metals ☐ Harmful dusts	 ☐ Chemical suit (encapsulated / splash) ☑ Disposable coveralls ☑ Chemical gloves ☐ Leather gloves ☐ Chemical goggles ☐ Dust goggles
Infection	☑ Bacteria☑ Sharp objects/needles	☐ Chemical boots ☐ Safety Harness
Radiation	☐ Comms antenna or dish☐ Radiation gauges	 ☐ Helmet (with chin strap) ☐ Knee pads (Entrant / Standby) ☐ Additional communication equipment (hardwire / 2-way) ☐ Other:

MAJOR HAZARDS	DETAIL	SAFETY CONTROL MEASURES
Activation of energy	☐ Caught in moving parts ☐ Electrical ☐ Pressure release ☐ Crushing	☐ Isolate power supply ☐ Disconnect drive lines ☐ Connect to Earth Leakage Breaker (outside space) ☐ Use low voltage equipment where possible ☐ Depressurise ☐ Chock or pin equipment
⊠ Fall from heights	☑ Entry / Exit☐ Retrieval☐ Working☑ Open hole (Risk to Standby)	 ☑ Erect a temporary edge rail ☐ Build a temporary platform (scaffold / prefabricated) ☐ Use a work positioning system (harness & lanyard) ☑ Wear fall prevention PPE ☐ Barricade the area to keep others clear
☐ Heat strain / stress	☐ Direct sunlight ☐ High air temperature ☐ Low air flow ☐ High humidity ☐ High operating temp. ☐ Restrictive clothing	 ☐ Allow the space to reach ambient temperature ☐ Schedule work for coolest times where practical ☐ Ventilate with cool air where practical ☐ Rotate work or increase the work:rest ratio ☐ Maintain water intake
Heat or cold burns	☐ High surface temperature ☐ Cold surface temperature	☐ Erect shade over work area ☐ Guard potential hazards ☐ Wear PPE — gloves, coveralls, boots, eye safety ☐ Cool area before entry
Moving plant / vehicles	☑ Road near by☑ Vehicles loading / unloading	☐ Stop or relocate external works☑ Display signs and barricades to prevent access
⊠ Slips and trips	☐ Poor lighting ☐ Obstructions or trip points ☐ Head strike points	 ☑ Provide temporary lighting (Extra Low Voltage / EX rated) ☐ Guard or barricade obstructions ☑ Maintain housekeeping / keep work area clear and tidy
Noise		Relocate noise generating equipment Wear hearing protection with internal comms
○ Other: Manual handling Indicates the consequence is u	Lifting lids nacceptable and the risk is conceivable	Use lifting aids / rollers Group lift heavier items

NOTE: ALWAYS REVIEW HAZARDS AND IDENTIFY CHANGES PRIOR TO ENTERING SPACE

Comments:

4. ACCESS / EGRESS AND FIRST RESPONSE EQUIPMENT:

EMERGENCY STEPS - S.C.R.A.M.

A

1. Stop all work. Evacuate the space.

DO NOT ENTER A HAZARDOUS ATMOSPHERE Assess the dangers or nature of the incident

- 2. Call for assistance
- 3. Respond

Assist people to exit the space Initiate First Response (Non-entry retrieval) steps Remove immediate hazards if safe to do so.

- 4. Account for personnel
- 5. Medical Provide 1st Aid treatment

Equipment:

B



Images - Recommended Equipment

FIRST RESPONSE DISCRIPTION / METHOD:

C



Set-up Diagram - Tripod

Note – The standard tripod is free standing and can collapse if lateral force is applied.

Set-up

- Assemble the tripod away from an open manhole or pit.
- Attach the pulley system to the centre anchor point using a triple action carabiner. Orientate the pulley for a downward pull.
- Fully extend the legs of the tripod to maximize overhead height. Adjust leg length if the surface is unlevel.
- Move each leg outward to maximize stability. Restrain legs with the keeper rope or chain (if provided). Anchor or stabilize legs if necessary.
- Erect an edge barrier or assemble a work-restraint system to prevent the standby person from falling into the space.

Retrieval

- 1. Haul on the pulley system to raise the entrant from the space.
- 2. Guide the entrant's head and upper body out of the space.
- 3. Close or cover the manhole and lower the entrant to the ground. (DO NOT LOAD THE TRIPOD SIDEWAYS, TRIPOD MAY TIP.

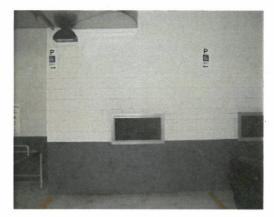


Reg No. Space / Location Classification

S001

Exhaust plenums: Carparks

Hazardous



S002

Pump pits: Carparks

Confined Space



S003

Air Handling Units : Kmart Mall -Upper Carpark

Hazardous



S004

Grease Interceptor

Traps: Kmart

Confined Space

Loading Bay



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Reg No. Space / Location Classification

S005

Lift Well : Puckle Mall

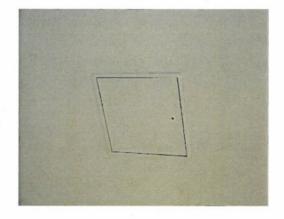
Hazardous



S006

Ceiling Space : Puckle Mall

Hazardous



S007

Grease Interceptor

Traps : Coles Loading Bay Confined Space



S008

Travellator Pits : Kmart Mall

File: Mirvac Register - MooneePonds

Hazardous





Reg No. Space / Location Classification

S009

Lift Well: Kmart Mall

Hazardous



S010

Bulkhead : Kmart Mall - Carpark

Hazardous



Grease Interceptor

S011 Trap: Kmart Mall - Confined Space

Carpark

Lift well - 1st S012 Choice Goods Lift:

Hazardous

Kmart Mall





				PHYSICAL CH	PHYSICAL CHARACTERISTICS		AND THE STREET	IDENTIFIED HAZ	IDENTIFIED HAZARD CRITERIA		
Site:	Site: Moonee Ponds Central	ntral	Question 1	Question 2	Question 3	Question 4	Question 5A	Question 5B	Question 5C	Question 5D	
			Is the Space enclosed or	Is the Space intended or	Is there restricted	Is there normal is there a risk atmospheric of an	Is there a risk of an	ls there a risk of	Is there a risk of a harmful	Is there a risk of Engulfment?	
			partially enclosed?	designed primarily to be	_	Contract to	atmosphere that does not	contaminants concentration that may cause of any airborne			
				occupied or entered by a			have a safe oxygen level?	injury from fire contaminant?	contaminant?		
Reg No.	Reg No. Location	Name		person?			2				Classification
			Requires Yes	Requires No	Requires Yes	Requires Yes	Requires YES to	YES to either 5A, B, C or I	0		Calculated
S001	Carparks	Exhaust plenums	Yes	No	Yes	Yes	No	No	No	No	Hazardous
S002	Carparks	No.	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Confined Space
S003	Kmart Mall - Upper Carpark Air Handling Units		Yes	No	Yes	Yes	No	No	No	No	Hazardous
S004	Kmart Loading Bay	Grease Interceptor Traps	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Confined Space
S005	Puckle Mall	Lift Well	Yes	No	Yes	Yes	No	No	No	No	Hazardous
9008	Puckle Mall	Ceiling Space	Yes	No	Yes	Yes	No	No	ON	No	Hazardous
2002	Coles Loading Bay	Grease Interceptor Traps	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Confined Space
8008	Kmart Mall	Travellator Pits	Yes	No	Yes	Yes	No	No	No	No	Hazardous
800S	Kmart Mall	Lift Well	Yes	No	Yes	Yes	No	No	No	No	Hazardous
S010	Kmart Mall - Carpark	Bulkhead	Yes	No	Yes	Yes	No	No	No	No	Hazardous
S011	Kmart Mall - Carpark	Grease Interceptor Trap	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Confined Space
S012	Kmart Mall	Lift well - 1st Choice Goods Lives	Yes	No	Yes	Yes	No	No	No	No	Hazardous

Note: Classification of spaces is based on inherent hazards. A Job Safety Environment Analysis (JSEA) is required before entry to confined or hazardous spaces.