

**SOUTH32****Illawarra Coal****PROCEDURE**

SITE:

WCCPP

DEPARTMENT:

MAINTENANCE

TITLE OF DOCUMENT:

CONFINED SPACE ENTRY PROCEDURE – TK4-4A, TK4-4B AND TK4-4C FLOTATION CELL BANKS

ORIGINATOR:

Tim Pratt

POSITION:

Mechanical Engineer

AUTHORISER:

Martin Cocca

POSITION:

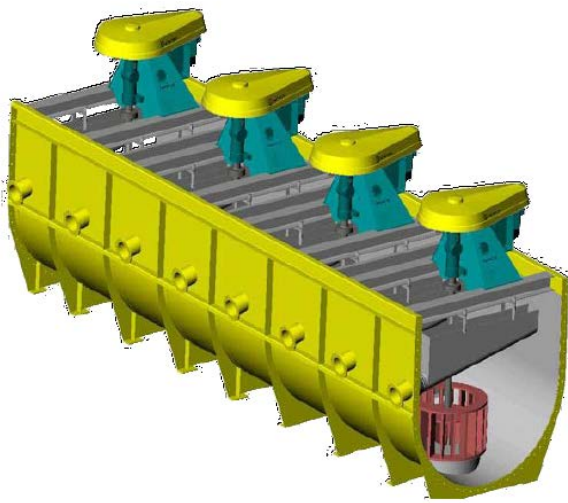
Manager Maintenance

WCPP0111

1.0 PURPOSE

The purpose of this procedure is to provide guidelines for safe access into this confined space in line with current legislation.

2.0 SCOPE

Location	New Flotation building
Type and nature of space	<p>Tank, 2850mm diameter, 3120mm high, 21m long, curved base</p> <p>Contents are coal water and reagent</p> <p>Open topped</p> <p>Internal mechanical operated agitators</p> 
Access	Via open top
Ventilation	Open topped, no flow through
Illumination	Illumination by roof lighting
Reason for entry	<ol style="list-style-type: none"> 1. Inspection, cleaning 2. Tiling 3. Hot work 4. Maintenance

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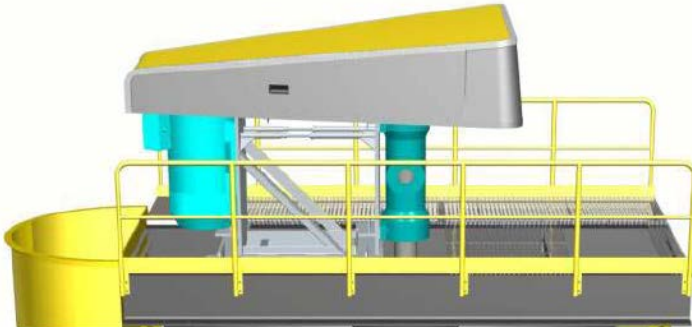
Document ID	WCPP0111	Version	2.1	Page 1 of 5
Last Date Updated	08/07/2015	Next Review Date	21/05/2019	

3.0 RESPONSIBILITY, AUTHORITY & ACCOUNTABILITY

Role	Responsibility	Authority
Site Manager	<ul style="list-style-type: none"> Provide safe systems of work 	<ul style="list-style-type: none"> Authorise this procedure
Process Owners	<ul style="list-style-type: none"> Update this procedure 	<ul style="list-style-type: none"> Make changes
Employees and Contractors	<ul style="list-style-type: none"> Follow this procedure 	<ul style="list-style-type: none"> Stop work if unsafe

4.0 REQUIREMENTS

4.1 Hazards, Risks, Controls

Hazard	Risk	Controls
Before access into the cell		<ol style="list-style-type: none"> Check work pack has: <ol style="list-style-type: none"> Permit to work (PTW) Confined Space Work Permit Confined Space Entry Procedure Mandatory Risk Assessment Hot Work Permit (if cutting or welding) Working at Heights Permit (if required) Develop a rescue plan – refer Rescue Check List Isolate as per isolation permit Place personnel locks on the isolation points Confirm that tank is empty. Inspect from top of tank and check with Control Room Hose the internals of the cell Gas watcher to monitor atmosphere inside cell before entry is permitted
Access	Slip causing physical injury	<ol style="list-style-type: none"> Ladder is required to be used for access from the top Tie the top of the ladder off to prevent movement
Internal agitators	Agitators starting causing physical injury	<ol style="list-style-type: none"> Isolate electric power to agitators Isolate blower electrically
Flow of product	Engulfment, physical injury	Physically drain tanks, open dart valves and drain valve on the bottom of the tank <ol style="list-style-type: none"> Isolate feed pump Isolate pneumatics to dart valves
Unprotected edge	Personnel fall from heights	Fit provided handrails before lifting floor mesh, barricade area to control any unauthorised entry 

PROCEDURE
CONFINED SPACE ENTRY PROCEDURE – TK4-4A, TK4-4B AND TK4-4C FLOTATION CELL BANKS

Hazard	Risk	Controls
Water	Ingress of water from above introducing hazards for electrical work	<ol style="list-style-type: none"> Isolate make up water Use of external safety switch OR use of extra low voltage limiting device Use signage and barricades in area around top of screen
Noise	No determined risk	Use PPE if work activity generates noise
Hot Work	Electrocution Burns Eye Flash Fire (only to own clothes or person) Fume	Use of external safety switch OR use of extra low voltage limiting device. Hot work permit. All persons to wear PPE suitable to the task and which is compliance with relevant Australian standards Use of welding mask if welding OR oxy-cutting goggles if oxy-cutting Wear appropriate PPE Wear appropriate rated mask based on contaminant, use pneumatic operated fan for blowing/extraction of fume.
Reagent	Is found in a diluted state (no fumes or vapours)	Hose out cell prior to entry. Check MSDS for task
Lack of Oxygen	No risk of low oxygen envisaged	Open topped ventilation is adequate
Presence of methane	No risk of presence of methane envisaged	Open topped ventilation is adequate
Contaminated atmosphere	Welding and oxy-cutting fumes causing physical injury	<ol style="list-style-type: none"> Use pneumatic fan if quantity of welding/oxy-cutting fumes become unacceptable Remove oxy/fuel gear from confined space when not in use
Lack of illumination	Slip/trip causing physical injury	<ol style="list-style-type: none"> Use a cap lamp For long term jobs use of extra low voltage lights
Internal surface	Slipping causing physical injury	<ol style="list-style-type: none"> Hose floor prior to entry Wear appropriate PPE
Absence of rescue and response procedures	Person injured does not receive adequate and timely assistance	<ol style="list-style-type: none"> Use of standby man at all times whilst someone is in the space Ensure standby man has visual and audible communication at all times. Standby man to have a means of communication (to Washery control/supervisor, and surface control) readily available at all times NOTE: Standby man MUST notify Washer control/supervisor prior to anyone entering the space and when everyone has exited the space and moved away from the area. Emergency response plan to be clearly understood by all personnel involved, that is: <ol style="list-style-type: none"> Notify Washery control (4080/4081) Notify surface control 2555 / 1300 00 2555 Remain in close proximity to the confined space Wait for assistance

<i>This document UNCONTROLLED once printed</i>				Page 3 of 5
Document ID	WCPP0111	Version	2.1	
Last Date Updated	08/07/2015	Next Review Date	21/05/2019	

PROCEDURE**CONFINED SPACE ENTRY PROCEDURE – TK4-4A, TK4-4B AND TK4-4C FLOTATION CELL BANKS**

Hazard	Risk	Controls
Rescue Plan		Rescue will be carried out by EMT with either crane access (if available) or available stretchers/back boards through the entry point
Completion of work	No determined risk	<ol style="list-style-type: none"> 1. Remove all equipment from inside the cell 2. Close up confined space 3. Remove personnel locks and de-isolate 4. Sign off on all permits and return them to the sign-on office

4.2 *The following safe work procedures are to be adopted whilst working in the confined space*

4.2.1 Access to Entry Requirements Procedure is via iPICK

- The responsible person (at least) must be Confined Space trained, minimum competency standard certification accepted is VETAB accreditation.

4.2.2 One person (responsible person) is in charge and is responsible for the following:

- Notification of Washery control/supervisor of arrival and intentions.
- Accessing relevant folder with risk assessment and Entry permit documentation from Washery control.
- All personnel involved in the job have:
 - Been made aware of the hazards and risk assessment relative to this confined space.
 - Been made familiar with the assessment procedures.
 - Been made familiar with the relevant control measures.
 - Compared the risk assessment with the work that they will be undertaking.
 - Been instructed that if any control measures fail or conditions change to stop and suspend work until work conditions are assessed and made safe.
 - Been made aware of the emergency rescue/response procedures.
 - Selected and are using correctly fitting appropriate PPE.
 - That all persons adhere to safe work methods.
- Completion of and storage of relevant documentation including Entry permit.
- Communication equipment has been tested and found to be in good order.
- Emergency procedures have been planned, established and rehearsed with relevant equipment in place prior to entry.
- Operation of and testing with gas detector (if required) and that atmospheric testing results have been found to be within exposure standards prior to entry.
- Pre entry isolation requirements have been completed.
- Relevant information has been recorded on the Entry permit.

<i>This document UNCONTROLLED once printed</i>				Page 4 of 5
Document ID	WCPP0111	Version	2.1	
Last Date Updated	08/07/2015	Next Review Date	21/05/2019	

PROCEDURE

CONFINED SPACE ENTRY PROCEDURE – TK4-4A, TK4-4B AND TK4-4C FLOTATION CELL BANKS

- Entry permit has been authorised.
- Standby person remains in close proximity to the space at all times and communication with those inside the space is established and maintained.
- If any control measures fail, conditions change detrimentally, or unforeseen hazards arise- work is to be suspended. In such cases workers will confer, rectify and not resume work until conditions are safe.
- Upon completion of the job the space is returned to operational readiness with all isolations removed, the Entry permit is returned to the relevant Authority.
- At the completion of the task ensures all floor gridmesh is refitted securely and temporary handrails are stored correctly.

5.0 REVIEW

Date	Version	By	Reason
19/04/2012	1.0	Gavin Pollock	Creation of procedure
22/05/2014	2.0	David Huxley	Added TK4-4C
08/07/2015	2.1	Martin Cocca	Additional inspection for pre-access

<i>This document UNCONTROLLED once printed</i>				Page 5 of 5
Document ID	WCPP0111	Version	2.1	
Last Date Updated	08/07/2015	Next Review Date	21/05/2019	