

# PLANT RESTRICTED ZONE

DRAFT FOR APPROVAL

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OUTSIDE MEMBERS





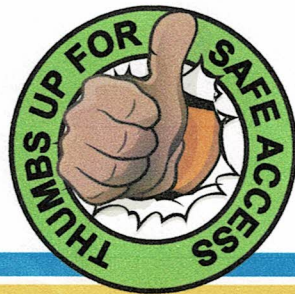
# RESTRICTED ZONE

The design, layout and operation of working areas are key to ensuring that people are segregated from the risk of:

- Collision or entrapment from mobile plant or equipment;
- ~~And the risk of~~ falling objects striking an individual working within the working area.

This booklet has been produced as a guide for all FPS member companies to assist them in setting up and managing effective working areas and restricted zones that may have people and various items of plant and equipment working in and around them.

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- ② Where a physical barrier (such as a hoarding or wall) is present within the red zone dimensions, these become the red zone boundary.

## PLANNING:

When planning the work, restricted zones must be considered to ensure our staff as well as others are kept out of harm's way. A restricted zone is an area where only authorised persons can enter or stand during normal operations. It is important to remember there is a serious risk of injury or death from being struck by falling objects or from moving plant and equipment within a restricted zone.

- ✗ These are identified in metres (m) and by the red zones within this booklet and can only be entered by authorised persons, and only once the plant or equipment is isolated and in a safe condition. The person who wants entry can only enter from the "green zone" and following a "Thumbs up" see below. ②

- ⚠ Depending on the ground engineering technique, spoil may be produced and will need to be stored nearby pending removal or loaded directly into tippers etc. These areas are still classed as restricted zones and still pose a serious risk of injury. These are identified by a black and white hatched zone within this booklet.

- ! On occasions, authorised personnel will need to enter a restricted zone to carry out

various tasks that are involved in our works. Depending on the site layout there may be other hazards to consider such as overhead structures or attendant equipment such as cranes or excavators or working nearby. These areas are identified in metres (m) and by amber zones within the workbook. The person who wants entry can only enter from the "green zone" and following a "Thumbs up" see below.

- ⚠ There may also be a requirement for authorised personnel to stand close to piling equipment, so they can assist in the connection of tooling or casings etc. These areas are identified in metres (m) and by a hatched amber and red zone in the workbook. The person who wants entry can only enter from the "green zone" and following a "Thumbs up" see below.

- ✓ As a reminder, before entering any of the areas above the authorised person must always approach and stand in an area with optimum visibility and receive a "thumbs up" off the plant operator before entering. These areas are identified as green within this book.

"Front man" (FM) or banksman (BM) and

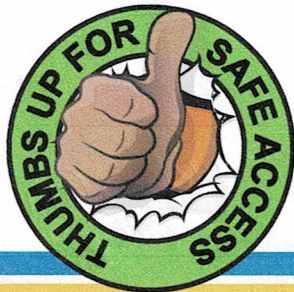
Recommended

## GENERAL GUIDANCE:

The pictures depicted within this guidance booklet have been produced by the Federation of Piling Specialists (FPS) with the intention of highlighting the ~~minimum~~ standards for managing plant restricted zones around plant and equipment generally used within a normal piling worksite.

It is the responsibility of the geotechnical contractor working in collaboration with the client to ensure that appropriate measures are in place, that consider the site-specific logistics, site layout and the impact of other operations being undertaken on a worksite that may have an impact on the piling works.

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## KEY ROLES AND RESPONSIBILITIES

### Rig Operator:

Responsible for operation of the rig, the isolation (Isolation means – the rig is in a safe condition and cannot be moved, operated or slewed) and giving the “thumbs up” to the front man (FM) / banksman (BM) / authorised person (AP) thus allowing safe access into the restricted zone. Under no circumstances should the operator attempt to move or operate the rig when people are stood in the restricted zone unless they are under the direct control of the FM/BM.

### Plant Operator:

Responsible for operation of the plant equipment, the isolation (Isolation means – the plant equipment is in a safe condition and cannot be moved or slewed) and giving the “thumbs up” to the front man (FM) / banksman (BM) / authorised person (AP) thus allowing safe access into the restricted zone. Under no circumstances should the operator attempt to move or operate the plant when people are stood in the restricted zone unless they are under the direct control of the FM/BM.

### Front Man/Banksman:

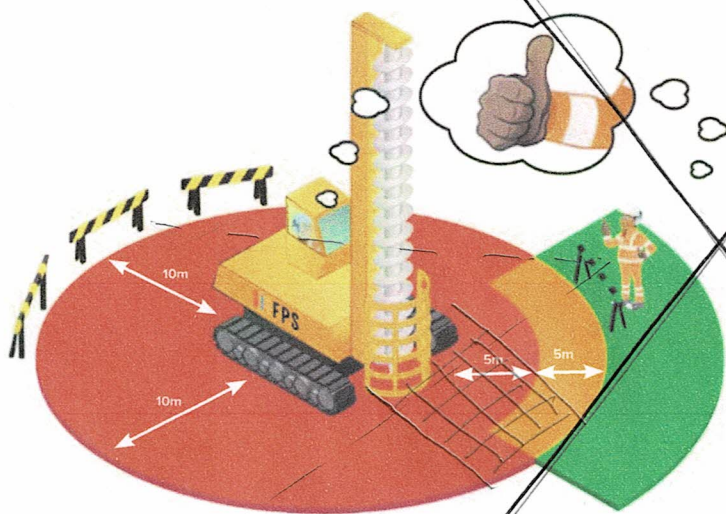
Is the person in control of all rig and plant movements within the piling areas. Before entering the restricted zone, the FM/BM/AP must receive a “thumbs up” acknowledgement from the rig or plant operator that it is safe to enter.

### Authorised Person:

An authorised person is a member of the piling crew who has been authorised to work within the piling works area.



# CFA/RIGID INCLUSIONS RESTRICTED ZONE



**Red Zone:** The rig must be isolated (isolated means the rig cannot slew or track and the hydraulics are not able to operate) to prevent movement or rotation before entering this area. Authorised personnel only (rig attendant).



**Amber Zone:** 5-10m piling exclusion zone. Authorised personnel only (rig attendant). Authorised persons can enter only when driver/operator has acknowledged you and it is safe to do so. Do not enter the Red Zone from this area.

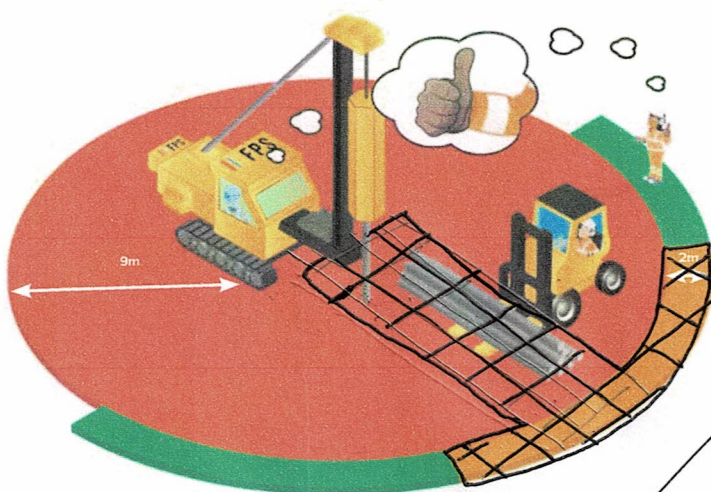


**Green Zone:** Drivers sight line (safe approach) optimum rig attendant position.

Note: The measurement for the Red Zone starts from the widest part of the machine-auger/tracks.

CFA, RIGID INCLUSIONS, DCIS & VCC

# DRIVEN PILING RIGS RESTRICTED ZONE



**Red Zone:** The rig must be isolated (isolated means the rig cannot slew or track and the hydraulics are not able to operate) to prevent movement or rotation before entering this area. Authorised personnel only (rig attendant).



**Amber Zone:** 9m piling exclusion zone. ~~Authorised personnel only (rig attendant).~~ ~~Authorised persons can enter only when driver/operator has acknowledged you and it is safe to do so. Do not enter the Red Zone from this area.~~



**Green Zone:** Drivers sight line (safe approach) optimum rig attendant position.

Note: The measurement for the Red Zone starts from the widest part of the machine-auger/tracks.

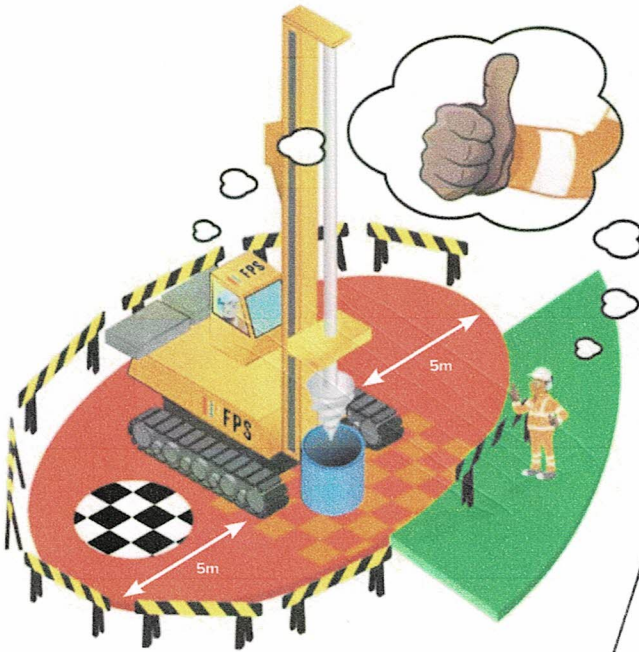
Repeat on other scenarios.





Working Amber Zone

Authorised personnel only are allowed to enter this area to conduct tasks in accordance with their works instructions.



# LDA RESTRICTED ZONE

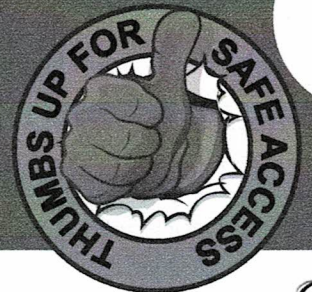


-  **Red Zone:** The rig must be isolated to prevent movement or rotation before entering this area. Authorised personnel only (rig attendant).
-  **Working Amber Zone:** ~~If the operation includes the use of segmental casing ONLY~~ authorised personnel are permitted to enter this area.
-  **Green Zone:** Drivers sight line (safe approach). Always signal 'thumbs up' to the plant operator and receive a positive 'thumbs up' response before entering Amber or Red Zone.
-  **Black and White:** Auger spin off area/Tipper loading area.

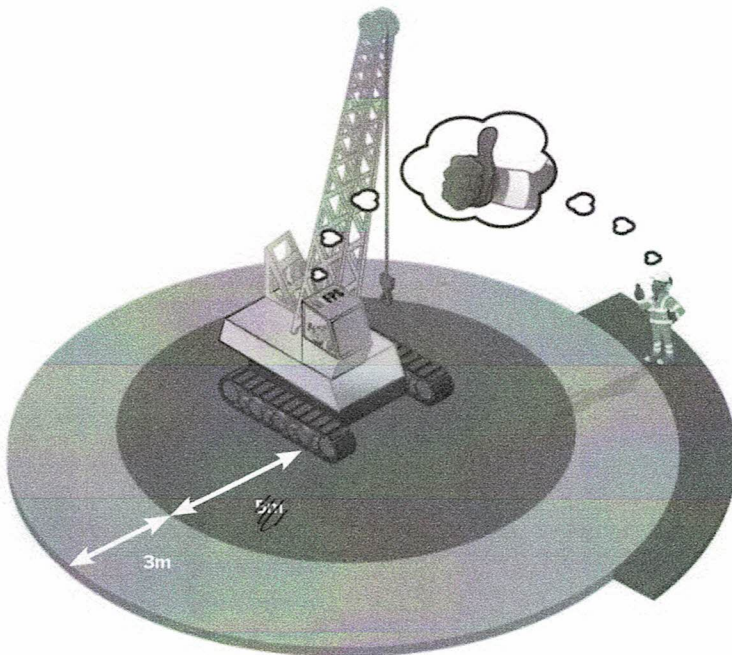
Note: Consideration should be made to barrier off the plant spin off area.

# CRAWLER CRANE RESTRICTED ZONE

or 360° excavator being used for lifting.



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**Red Zone:** No persons should enter this zone during operation. Authorised personnel only (slinger/signaller). ~~Means of communication~~ Means of communication (thumbs up, verbal or radio contact) must be maintained at all times. Never walk beneath a suspended load.



**Amber Zone:** Authorised persons can enter only when driver/operator has acknowledged you and it is safe to do so.



**Green Zone:** Slinger/signaller must be within the line of sight to the operator during lifting operations. Give the 'thumbs up' recognition to the crane operator and receive a positive 'thumbs up' response before entering the Red Zone. Ideally the load should be grounded before entering Red Zone.

Note: Green Zone illustration may differ depending which side the cab is located (ie green = cab side).

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① The red zone extends to the outer edge of the object being lifted.