

Fact sheet

Puddling operations – agitator safety

September 2025

This fact sheet outlines the minimum safety standards for puddling operations and the necessary associated equipment and safety considerations including site establishment, conveyor belt safety, agitator safety, safe access and working at height.

Site establishment

When establishing a puddling operation, it is important that the mine operator consider the following:

- Ease of access to reverse trucks to the tipping point (ramp grade and line of sight).
- Level and compact ground to park trucks for tipping.
- Edge protection to prevent vehicles from rolling over banks or steep edges on elevated sites.
- Room to establish and maintain equipment such as crane access.

Conveyor safety

Conveyor belt systems can cause serious harm if they are not installed, operated, and maintained correctly. In complying with the mine operator's obligations under clause 46a (2) (a) of the Work Health & Safety (Mines & Petroleum Sites) Regulation 2022, the mine operator must ensure that all belt conveyors are fitted with an emergency stop system.

Conveyor systems have entanglement hazards which can cause serious harm. The person with management control of plant at a workplace, under section 21 of the *Work Health and Safety Act 2011*, must ensure, so far as is reasonably practicable, that plant is operated without risk to the health and safety of any person. The most practical way to achieve this is by ensuring there is adequate guarding to prevent access to components of the conveyor belt system that may entangle a person, when the conveyor is in operation.

Agitator safety

Similar to conveyor systems, agitators have entanglement hazards present that must be controlled. The most practical way to protect against entanglement hazards is to enclose possible nip points with suitable guarding. Where guarding is utilised as a control measure, the person with management or control of the plant must:

- ensure that the guarding is of solid construction and securely mounted, to resist impact or shock

Fact sheet

- ensure that it makes bypassing or disabling of the guarding, whether deliberately or by accident, as difficult as is reasonably practicable
- ensure the plant does not create a risk in itself
- ensure the plant is properly maintained.

Figure 1: Guarding from entanglement hazard



Safe access and working at height

When setting up puddling equipment, consideration must be given to safe access and protection from a person falling from one level to another. From time-to-time, access will be required to conduct repairs and maintenance to equipment and for other operational reasons. Wherever a person is required to work at height, safe access and protection against falls must be managed, as far as is reasonably practicable. Enclosed walkways, platforms and stairs provide a practical solution.

Figure 2: Working at height fall protection



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