

Line of Site Loss

4/07/2005 - v10

Collision with person - AND

- Person in a position where they can be struck - OR
 - Operator
 - Operator position selected to be away from slope edges, vertical openings and straight line trams for the remotely controlled loader
 - Another person
 - Warnings and barricades at all accesses to remote stoping areas
- Loader moving towards a person
 - Loader operator training and familiarisation processes
 - Supervision and regular monitoring of competency.

Operating Location Losses - OR

- Ground Fall - OR
 - Insufficient support
 - Ground support management system
 - Changes in ground conditions
 - Ground monitoring and inspections
- Falling Onto - OR
 - Rushes of material
 - Understanding of geological conditions (i.e. presence of water / flowing ground)
 - Operator position selected to be away from slope edges, vertical openings and straight line trams for the remotely controlled loader
 - Material egressing from stopes / passes
 - Operator position selected to be away from slope edges, vertical openings and straight line trams for the remotely controlled loader
- Falls From - OR
 - Trips, slips etc
 - Housekeeping
 - Work area standards
 - Fall from elevated platform
 - Design of operating position, including handrails etc to meet guidance from Australian Standards
- Striking
 - Sharp objects (e.g. ground support)
 - Housekeeping and work site preparation
 - Work area standards
- Noise
 - Appropriate PPE
 - Operator position selected to be away from slope edges, vertical openings and straight line trams for the remotely controlled loader
- Fumes
 - Ventilation of work area, personnel up-stream from smoke and dust generating sources.
 - Appropriate PPE
- Damage to other equipment - OR
 - Remote Control Transmitter Damage
 - Maintenance system
 - Pre-start
 - Access and egress points
 - Remote control operation behind barricaded areas
 - Traffic management systems
- Loader disabled in position of hazard
 - Equipment and process for dealing with disabled equipment

Collision - AND

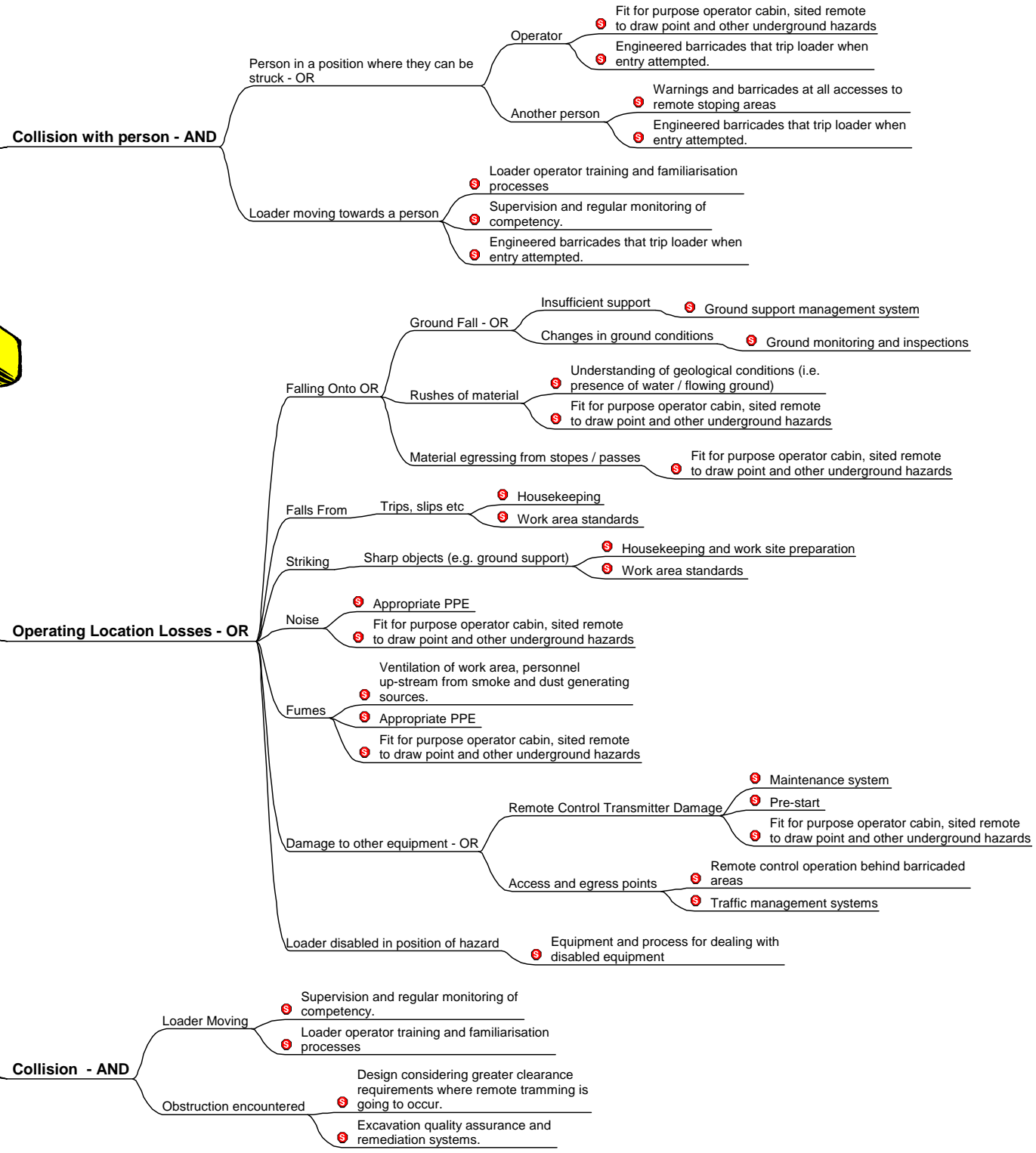
- Loader Moving
 - Supervision and regular monitoring of competency.
 - Loader operator training and familiarisation processes
- Obstruction encountered
 - Design considering greater clearance requirements where remote tramming is going to occur.
 - Excavation quality assurance and remediation systems.

NOTE

The term “OR” and “AND” at the end of some of the items on a branch indicates the logic of the subsequent items. So for example, Collisions with a person—AND, means that both a person is in a position where they can be struck AND the loader is moving.

The final item in each branch (preceded with a stop sign) is a control that could be potentially applied to ameliorate the hazards identified in the relevant limb of the tree.

Tele Remote Loss - OR
7/07/2005 - v12



NOTE

The term “OR” and “AND” at the end of some of the items on a branch indicates the logic of the subsequent items. So for example, Collisions with a person—AND, means that both a person is in a position where they can be struck AND the loader is moving.

The final item in each branch (preceded with a stop sign) is a control that could be potentially applied to ameliorate the hazards identified in the relevant limb of the tree.