

TIP sheet

Construction, plant and equipment

T007 – AUGUST 2006



Definition

Plant includes any appliance, equipment (including scaffolding), machinery, implement or tool or any associated component, fitting or accessory (Reference: NOHSC: 1010).

Minimum requirements

Managers and supervisors must implement measures to minimise the health and safety risks associated with working with plant.

Regarding plant, all RTA worksites shall:

- identify, then eliminate or control plant-operator-pedestrian interaction.
- ensure that the system of guarding used is fit for purpose, suitable for the plant and activity, inspected and maintained on a regular basis.
- provide appropriate plant-pedestrian traffic segregation, and protection barriers where necessary.
- develop written Safe Work Method Statements (SWMS) for all interactive tasks involving plant, operators and pedestrians.
- train all staff who may work with or operate plant in the nature of the hazards involved, the means adopted to control exposure and emergency procedures in place.
- provide and maintain as far as practicable, the required facilities and systems of work

to enable plant to be inspected, maintained, repaired and cleaned.

- ensure that plant inspections and maintenance are in accordance with manufacturer's instructions.
- ensure that contractors undertaking works for the RTA comply with this procedure and associated guidelines.

Hazards

Hazards associated with plant include:

- Contact or entanglement with the machinery, or material in motion.
- Being trapped between the machine and any material or fixed structures.
- Being struck by ejected parts of the machinery, or materials ejected from the machinery.
- Release of potential energy.

Risk assessment

A Risk Assessment must be completed by a technically competent person prior to use of plant for high risk construction work which includes work near vehicular, mobile plant or pedestrian traffic.

The Risk Assessment of tasks involving plant shall comply with the RTA Risk Management Procedure.

Risk controls

The most effective method to control the risk is to eliminate the risk associated with the operating plant. If this is not possible, then reduce (minimise) the risk by working down the following hierarchy of control (use multiple controls where necessary):

- Use plant that is fit for purpose, appropriately guarded, quiet and safe to use and maintain. Such plant should incorporate where applicable, seat belts, horn, reverse/travel alarm, rear vision mirror, ROPS, FOPS, SWL and safety signage, headlights, indicators, amber strobe beacon, emergency stop devices and reflectors.
- Operate the plant remotely.
- Isolate the work area through appropriate plant-pedestrian traffic segregation, and protection barriers (inc noise protection barriers and baffles) where necessary.
- Implement administrative controls such as safe work methods (SWMS), rotate staff where practical to reduce operational time and operator fatigue.
- Use PPE such as hi-vis clothing, hearing and eye protection, protective footwear, helmets etc, but only as a temporary measure or as added protection.

Competency based training / certification of operators

RTA staff can only operate construction plant for which they hold a RTA 'Plant Safety' certificate. Refer to [TIP Sheet T001](#)- Certification of Plant and Operators.

Certification includes the following:

- RTA Training course 'Working with Construction Plant'.
- Specific plant item competency based training and assessment by qualified and authorised trainer/assessor.
- Supervised operations recorded in RTA log book.
- Issue of RTA Plant Safety Certificate or/and issue of relevant WorkCover Certificate.
- Certificate reassessment shall be no less than at 2 year intervals.

Contractors must hold a National Certificate of Competency where necessary and illustrate an appropriate level of training and competence in all other cases.

Review

Risk Assessments, SWMS, and work procedures must be reviewed and revised when there is evidence that:

- The original assessment is no longer valid or older than 3 years.
- Injury or illness results from exposure.
- A significant change is proposed at the place of work, or in work practices or procedures to which the assessment relates.

Plant operator responsibilities

All plant operators shall:

- complete appropriate training and assessment as required.
- only operate plant items for which current Certification is held.
- report any health conditions or medication that may impede the safe operation of the plant.
- in the case of mobile plant operators, report any suspension or cancellation of driver's license.
- comply with all approved safety information provided with the plant.
- record plant pre operational inspection and incidents in a logbook.
- ensure that regular inspection, servicing and maintenance is carried out to manufacturer's requirements.
- follow safe operating practices, (SWMS) and instructions given by supervisor or RTA representative.

- only use construction plant for the purposes for which it is designed and always within safe operating limits.
- wear all appropriate PPE as specified in training.
- carry appropriate operator certificates whenever operating plant.

Plant operator supervisor responsibilities

All plant operator supervisors shall in terms of plant operation, ensure that:

- the intent of [TIP Sheet T001](#) - Certification of Plant and Operators is implemented and training outlined in the training program is undertaken for all staff who interact with construction plant.
- supervision and Authorised Observers are provided where required.
- only certificated staff operate construction plant unsupervised.
- plant is operated only when it is in safe condition and suitable for the work.
- information on the safe operation and maintenance of construction plant provided by a manufacturer, supplier and safety authority is available and included in training materials.

Construction plant work environment considerations

When reviewing plant task Risk Assessments and working conditions the responsible person shall consider:

- Lighting and vision – Adequate lighting is needed for the operation of machinery so that machine movements, controls and displays can be easily seen and interpreted.

- Noise and preservation of hearing – As excess noise can lead to masked warning signals, poor communication and degradation of hearing, noise elimination and where it is not practicable, noise emission controls shall be employed in accordance with the above section 'Control the risk'.
- Heat and cold – Thermal comfort can affect safety alertness. Protective clothing used in hot or cold environments can interfere with free movement, lower dexterity and increase the risk of being caught in machinery and should be considered in any Risk Assessments undertaken.
- Housekeeping – Workplace layouts should be free from potential slips, trips, falls and other safety risks.

Safety check list

- Never adjust, repair, clean, or oil plant while it is in use or in motion. Always use lock out switches to prevent accidental start ups.
- Always replace guards after repairs have been completed.
- Regularly inspect for cracks, stretching, damaged cables, chains, clamps, hooks, and other plant that are regularly placed under stress.
- Report all plant that is damaged or creating a potential hazard immediately.

Plant registration

- If in doubt regarding plant registration requirements, contact RTA Fleet Services or the OHS Branch for assistance.

Reporting of incidents

All incidents are to be reported to the OHS Helpdesk on 1300 131 469.

If the incident presents an immediate threat to life or major damage to plant and equipment as advised by the OHS Helpdesk, then:

- the incident must be reported to WorkCover (by the OHS Helpdesk).
- the incident may be classified a non disturbance occurrence and advice by WorkCover must be obtained prior to touching the affected site.

References

NSW OHS Act 2000 and OHS Regulation 2001 Chapters 2, 3, 6 and 8.

[WorkCover COP](#) – Noise Management and protection of hearing at work.

[WorkCover COP](#) – Moving Plant on Construction Sites

[NOHSC:1010\(1994\)](#) – National Standard for Plant.

[NOHSC](#) Core Training Elements for the National Standard for Plant, 1995

[RTA OHS Policy 2.19](#) – Training and Certification of Construction Plant Operators.

[RTA OHS Policy 4.0](#) – Personal Protective Equipment.

[RTA Policy 2.0](#) – Risk Management

AS 1470 – Health and safety at work, principles and practice.

AS 1742 – Traffic Control Devices

AS/NZS 3000 – Wiring Rules

AS 4024 – Safeguarding of Machinery.