ROADS AND MARITIME SERVICES

TRAFFIC SYSTEMS

SPECIFICATION NO. TSI-SP-049

PORTABLE TRAFFIC SIGNAL SYSTEMS

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RECORD OF AMENDMENTS

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1 SCOPE

This specification covers the general requirements for portable traffic signal systems (PTS) to be used in the state of NSW to control vehicular traffic, typically used to provide temporary control at roadworks.

Note: This document supersedes the prior RMS specifications for portable traffic light signals; PTS/3 part A and PTS/3 part B.

2 REFERENCES AND APPLICABLE DOCUMENTS

2.1 Australian and International Standards

[1] AS 4191 – Portable traffic signal systems

2.2 RMS Documents

[3] TS201 – Approval of ITS Field Equipment
[4] TSI-SP-062 – user manual requirements for ITS equipment

2.3 Other Documents


3 DEFINITIONS AND GLOSSARY OF TERMS

For the purposes of this Specification, the following definitions and abbreviations shall apply:

RMS – Roads and Maritime Services, a New South Wales government agency
Portable – Transportable between sites, suited to being quickly set up on a new site.
PTS – Portable Traffic (signal) System
4 REQUIREMENTS

4.1 Compliance to AS4191

The portable traffic signal system shall meet the requirements of AS4191 [1].

4.2 Portability alternatives

Portability for PTS systems is traditionally provided by building the system into a trailer. However, AS4191 [1] does not limit the arrangements for a PTS system to this method.

Suppliers may offer alternative arrangements. If alternatives are offered, the supplier shall describe the arrangement, and detail related advantages, limitations, constraints, and transport and deployment methodologies.

4.3 Specialised PTS

The standard AS4191 [1] upon which this specification is based describes a standardised PTS arrangement, able to perform all normal tasks.

A supplier may as an alternative offer a specialised PTS, which exchanges some lack of functionality for one application (evident as non-conformance, typically leading to usage constraints), for benefits in another. In such a case the supplier shall apply under this specification, describing in addition to the items normally required:

4.3.1 Intended method and area of use;
4.3.2 Benefits, limitations and differences of the specialised PTS;
4.3.3 Methods and constraints proposed to manage limitations and differences;
4.3.4 Areas of non-conformance to this specification;
4.3.5 Mitigations for non-conformances and risks with supporting evidence.

4.4 Safety

The portable traffic signal system shall comply with the requirements of the NSW Work Health and Safety Act [5].

4.5 Generic Compliance

All equipment and materials, where not otherwise specified, shall be in accordance with Australian Standards and RMS Specifications where such exist, and in their absence, with appropriate IEC and ISO Standards/Specifications.

4.6 Documentation

User manuals shall be compliant to TSI-SP-062 [4].

4.7 Wind loading

The PTS shall meet the requirements of AS4191 [1], for Region A, Terrain category 2, as a minimum requirement.

The coastal strip of NSW north of Coffs Harbour is classed as region B. The PTS shall also meet the region B requirements if the PTS is to be granted approval for use in this region.
4.8 Statutory Requirement Certification and Labelling

The equipment shall be certified for applicable statutory requirements such as for:

- 4.8.1 Electrical safety per AS4417 (Level 3, as AS4191 requires a mains connection);
- 4.8.2 Electromagnetic compatibility;
- 4.8.3 Radio communications (if wireless communications are used).

Certified equipment shall be labelled as specified under statutory regulations, with the applicable regulatory compliance labels.

5 QUALITY ASSURANCE AND CONTROL

5.1 Quality System

The Supplier and the manufacturer shall operate a quality management system complying with ISO 9001, certified by an accredited quality management system certification body.

5.2 Quality Plan

The manufacturer shall document and provide a quality plan including details of quality control tests, sampling, and records to be made by the manufacturer during manufacture and release. A copy of this quality plan shall be provided to RMS as part of the approval process. Acceptance of this quality plan by RMS is a prerequisite to gaining overall approval.

5.3 Quality Audits

RMS reserves the right to examine the Manufacturer's quality records pertaining to an order that is on behalf or RMS. RMS also reserves the right to arrange for an independent quality audit concerning items in contract.

6 APPROVAL

6.1 Approval Process

- 6.1.1 To gain approval of the portable traffic signal system, the supplier shall follow the process defined in TS201 (ref. [3]).
- 6.1.2 If requested by RMS, the supplier shall provide a sample PTS system together with accessories, for RMS to evaluate.
- 6.1.3 Regarding wind capability, the supplier shall state whether they are seeking approval to cover Region B in addition to Region A, (or other terrain categories) and provide evidence accordingly. Approval if granted will be limited to regions and terrain for which capability has been demonstrated and accepted.
- 6.1.4 If a specialised PTS system is not fully conforming but evidence submitted demonstrates appropriate mitigations to manage risks, and the PTS is considered by RMS to offer sufficient benefits for the target usage to offset limitations, RMS may offer the option of a conditional or concessional approval, typically with associated terms and conditions constraining use in an appropriate manner.