

PAINTING CONTRACTOR CERTIFICATION PROGRAM ACCREDITATION REQUIREMENTS – CLASSES 20 TO 29

Editorial Note: This version of the document changed equipment requirements for Classes 20 & 21 and updated references to relevant PCCP documents.

1. SCOPE

- a) This document establishes the accreditation requirements for contractors involved in the Pavement Markings Category, Classes 20 to 29.
- b) It needs to be noted that PCCP is a trademark registered with IP Australia and is owned by CSIRO and is protected by law. Unauthorised use is prohibited.

2. INTRODUCTION

- a) For details of the PCCP scheme, its history, management and operation, refer to PCCP Documents D001 to D004.
- b) For details on the various pavement marking accreditation classes refer to PCCP Document PP-D031.

3. AUTHORITY & RESPONSIBILITY

- a) The Executive Officer, PCCP (EO) has the authority to implement the requirements of this procedure.
- b) The Technical Panel retains the responsibility for the content of the procedure.

4. REFERENCED DOCUMENTS

This procedure makes reference to the following PCCP documents;

1. Document PP-D001 How PCCP Operates.
2. Document PP-D003 Schedule of fees
3. Document PP-D004 Complaint handling
4. Document PP-D008 Quality management system criteria
5. PP-D031 – Pavement Marking Classes 20-29
6. Form PP-F001 – Initial application for PCCP accreditation
7. Form PP-F04– Initial pre-audit questionnaire Class 20 -29

All PCCP documents and forms are available for downloading from the Documents section of the PCCP web site at:

<http://www.apas.gov.au/>

5. DEFINITIONS

Applicant – an organisation applying for accreditation under the PCCP Scheme. The Applicant can be a company or trading entity with (in Australia) a valid ABN or ACN.

Capability – the ability of the Applicant to carry out the task from the viewpoint of having the necessary skills, equipment and experience.

Capacity – the ability of the Applicant to carry out the task from the viewpoint of having the necessary time and available staff to meet client time frames.

Type A machine – Type A line marking machines shall be designed for use as long run longitudinal linemarking vehicles used on major freeways and highways and in rural areas and shall:

- i) have a minimum rear track of 1 400 mm and a minimum wheelbase of 2 800 mm.

Type A machines are intended to provide some impact protection to operators and be easily seen by other road users by virtue of their sheer size.

Type B machine – Type B line marking machines shall be designed for short run urban line marking, intersections and areas requiring greater manoeuvrability, and shall:

- i) be a minimum GVM of 1 tonne.
- ii) have a paint capacity not less than 200 litres and appropriate glass bead capacity.

Type C machine – any machine not able to be classified as either Type A or Type B.

Key Activities – activities carried out by the organisation that make use of Key Product/s &/or Service/s. Examples are pavement marking activities, application of RPMs etc.

Key Product/s &/or Services – Any product or service which, if supplied in a quality lower than agreed or reasonably expected, has significant potential to cause a negative impact on the Applicant's business or reputation or the product/s or service/s the Applicant supplies to its client.

Key Supplier – a supplier of Key Product/s or Service/s.

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6. ACCREDITATION REQUIREMENTS

6.1 General

- a) In order to become an accredited contractor, the Applicant must be able to provide evidence that the following three major elements are routine parts of their normal business.
 - i) A working management system is in place and being regularly used to drive the business. This management system shall address Quality, OH&S and environmental matters. Refer clauses 6.2 – 6.5 below.
 - ii) Specialist processes relevant to pavement marking operations are in place and being regularly used to drive the business. Refer clause 7 below.
 - iii) Specialist equipment necessary to carry out activities to the satisfaction of the client, are available and being regularly used to drive the business. Refer clause 7b) below.

6.2 Quality management system

- a) The Applicant needs to be able to demonstrate its commitment to the provision of consistently high-quality goods and service/s by having in place a working quality management system.
- b) The Applicant can choose whether it becomes accredited to AS/NZS ISO 9001 through a JAS-ANZ accredited body such as SAI Global, NCSI (NATA) or an equivalent or whether it chooses to have PCCP audit the quality management system.

6.2.1 Externally accredited QMS

- a) Where QMS is externally accredited in accordance with 6.2b above, it may be possible to formally claim accreditation to AS/NZS ISO 9001.
- b) Where an Applicant has AS/NZS ISO 9001 accreditation and is able to show evidence of regular external audits by an accredited third party auditor, it will be deemed to comply with Sections 6.2, 6.3a, b & c and 6.4a & b and 6.7 of PP-D008.
- c) A current certificate confirming compliance to the quality management system standard shall be provided.

6.2.2 PCCP accredited QMS

- a) Organisations choosing to have PCCP accredit their QMS will not be able to claim compliance to AS/NZS ISO 9001. However, with additional system development work, investment and resources, a more comprehensive scheme compliant with ISO 9001 might be achieved.
- b) QMS minimum requirements for PCCP accreditation are detailed in Document PP-D008.

6.3 OH&S management system

- a) Proper and thorough processes and procedures related to occupational health and safety are required to ensure the safety and well being of employees, sub-contractors and the general public. Such procedures and processes (documents and records) are safeguards against future legal action – a risk mitigation activity).
 - b) With some medical conditions having lengthy (>20 years) latency periods it is imperative that records kept are detailed and comprehensive and are kept for at least 30 years (recommended).
- i) OH&S compliance plan – The Applicant shall have a written OH&S compliance program complying with local (government and regulatory) requirements. The elements of the program should include but not be limited to the following;

- a written compliance plan
- roles & responsibilities
- safe work methods statements
- reporting procedures
- safety procedures for specialised equipment
- provision of appropriate PPE
- fitting of PPE and training in use and maintenance of PPE
- monitoring of efficiency of the plan.

Third party certification of the program (AS 4801 or approved equivalent) may be submitted as evidence of compliance. Otherwise, the Applicant must demonstrate to the PCCP that they have an active OH&S program.

- ii) Records – The Applicant shall keep records of compliance with the plan. Any non-conformances shall be captured in the system complying with clause 7.10a)ii) of PP-D008.

6.4 Environmental management system (EMS)

- a) The Applicant needs to be able to demonstrate its commitment to a high standard of environmental protection practices by having in place a working environmental management system that incorporates policies, procedures, records and compliance to all relevant laws and regulations and suitable for their range of business activities.
- b) Examples of environmental impacts of the pavement marking industry are;
 - Noise
 - Erosion (road shoulder damage in wet weather)
 - Flora & fauna impacts
 - Waste generated and disposal
 - Spill management
 - Heritage and cultural site impacts

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- c) The Applicant can choose whether they become externally accredited to ISO 14001 through an appropriately accredited body or whether they choose to have PCCP audit their environmental management system.

- i) Compliance plan – The Applicant shall define and document the jobs where risk mitigation requires the preparation of an environmental compliance plan. The elements of the plan should include but not be limited to the following;

- An environmental threats analysis
- Responsibilities and authorities
- Reporting procedures
- Procedures for specialised processes such as water blasting or grinding
- Provision for appropriate monitoring of the status of the environment
- Monitoring the effectiveness of the plan

The compliance plan shall consider activities appropriate to the class of accreditation being sought.

- ii) Records – The Applicant shall keep records of compliance with the plan.

6.5 Training system

- a) The Applicant needs to be able to show that it is aware of the current level of training of its personnel and their future training needs so that they can have a positive impact on the quality outcomes of the organisation.
- i) Identification of needs – The Applicant needs to be able to show that it has a process for the identification of training needs for individual personnel and the delivery of the training.
- ii) Matching skills – The Applicant needs to be able to show that it is able to match job skill requirements with personnel training database records to find suitably qualified staff. There needs to be evidence that the system is being used.
- iii) Induction training – The Applicant shall ensure that all new employees including sub-contractors undergo a defined and documented program of Induction training. The induction training shall, in addition to normal business training (pay, hours, breaks etc) include training in the following;
- The quality management system and the company's expectation of its employees
 - OH&S and environmental policies and the company's expectation of its employees
 - The supply, fitting, maintenance and use of PPE
- iv) Records – The Applicant shall keep records of training given.

6.6 Integrated management system

- a) The Applicant needs to be able to show that the overall management system is integrated into a unified whole process i.e. common processes, documents and forms apply to all aspects – Quality, OH&S and Environmental. Examples are management review, internal audits, corrective and preventive actions.

6.7 Commitment & continuous improvement

- a) The Applicant needs to be able to show that throughout the organisation, at all levels, there is a commitment to quality principles, a desire to improve the business using those principles, and a knowledge of the organisation's position on quality

7. TECHNICAL CAPABILITY

- a) The Applicant needs to be able to show that it has the resources to undertake the tasks typically required by the Class for which accreditation is being sought. These resources include human, equipment and skills.
- b) Specialist equipment requirements are detailed in Tables 1 to 5 below.
- c) All Type A and Type B line marking machines shall:
- i) be capable of operating in the direction of traffic for all markings (dual steer).
 - ii) apply paint simultaneously from 2 longitudinally mounted spray guns sitting one behind the other, mounted in such a way as to spray at nominal angles (V-guns) to the pavement, with the 2 streams meeting at the ground level. Both guns shall have the same size tips and each gun shall continuously deliver equal volumes of paint at all speeds. Both guns shall have the same fan width. The line width shall comply with the specified requirements.
 - iii) apply paint to no-overtaking zone and double barrier lines using 2 laterally mounted spray guns.
 - iv) be fitted with mechanical and/ or electronic devices to provide real-time data to the operator and allow control of the application rate of paint and glass beads at all times.
- d) Where the Applicant does not have V-guns fitted to Type A or B machines, they must be able to demonstrate a compliance method or process to achieve bi-directional retro reflectivity (if required). It is desirable that line marking machines also have the capacity to apply higher paint film thicknesses and larger glass beads.
- e) Specialist process such as waterborne linemarking, thermoplastic markings, RRPM application, marking removal activities etc need to be documented via work instructions, safe work method statements etc to ensure consistency of application and standards.

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8. APPLICATION PROCESS

The application for accreditation process is detailed in PCCP Document PP-D001 clause 9.

TABLE 1 – CLASSES OF ACCREDITATION

| Class | Accreditation Class Description | Sub – class | Material |
|-------|---|--------------|----------------------------------|
| 20 | Longitudinal Pavement marking on Major roads | Class 20 – 1 | Waterborne & glass beads |
| | | Class 20 – 2 | Thermoplastic & glass beads |
| | | Class 20 – 3 | Multi-component & glass beads |
| 21 | Longitudinal Pavement marking on Minor roads | Class 21 – 1 | Waterborne & glass beads |
| | | Class 21 – 2 | Thermoplastic & glass beads |
| | | Class 21 – 3 | Multi-component &/or glass beads |
| 22 | Audit tactile markings | Class 22 – 2 | Thermoplastic &/or glass beads |
| | | Class 22 – 3 | Multi-component & glass beads |
| 23 | Pavement marking – car parks | Class 23 – 1 | Waterborne & glass beads |
| | | Class 23 – 2 | Thermoplastic & glass beads |
| | | Class 23 – 3 | Multi-component & glass beads |
| | | Class 23 - 4 | Non-skid and coloured products |
| 24 | Transverse pavement marking, intersections & messaging | Class 24 – 1 | Waterborne & glass beads |
| | | Class 24 – 2 | Thermoplastic & glass beads |
| | | Class 24 – 3 | Multi-component & glass beads |
| | | Class 24 - 4 | Non-skid product |
| 25 | Raised Pavement Marker/ Pavement Bar Installation | Class 25 - 1 | Pedestrian application |
| | | Class 25 -2 | Mobile application |
| 26 | High friction surfacing | Class 26 – 2 | Texturing |
| | | Class 26 – 3 | Cycle/Bus lanes & walkways |
| 27 | Pavement marking - Removal | Class 27 - 1 | Grinder |
| | | Class 27 - 2 | High-pressure water removal |
| 28 | Airport marking | Class 28 -1 | Waterborne & glass beads |
| 29 | Short-run pavement markings (new and remarking) on Major and Minor roads. | Class 29 – 1 | Waterborne & glass beads |
| | | Class 29 – 2 | Thermoplastic & glass beads |
| | | Class 29 – 3 | Multi-component & glass beads. |

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TABLE 2 – INSPECTION & TEST EQUIPMENT REQUIREMENTS

| Test Equipment | Class requirement ⁽¹⁾ | | | | | | | | | |
|---|----------------------------------|----|----|----|----|----|----|----|----|----|
| | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| Reflectometer | M | R | | | | | | | | R |
| Audio-tactile block height measurement tool or template | | | M | | | | | | | |
| Temperature – Surface | R | R | R | R | R | R | | | R | R |
| Temperature – Ambient | R | R | R | R | R | R | | | R | R |
| Relative Humidity | R | R | R | R | R | R | | | R | R |
| Wet Film Thickness Gauge | R | R | R | R | | | | | R | R |
| Tape measures | M | M | M | M | M | M | M | M | M | M |

Legend M = mandatory requirement; R = recommended or optional requirement.
Note 1: For definitions of Classes, refer PCCP Document PP-D031.

TABLE 3 – APPLICATION PLANT REQUIREMENTS

| Application Plant, Equipment & Associated Vehicles | Class requirement ⁽¹⁾ | | | | | | | | | |
|--|----------------------------------|----|----|----|----|----|----|----|----|----|
| | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| Type A line marking machine | M | R | | | | | | | R | |
| Type B line marking machine | M | M | | | | | | | M | |
| Type C line marking machine | R | R | | M | | | | | | M |
| Audio Tactile machine | | | M | | | | | | | |
| Crash attenuators (note speed rating) | R | | R | | | | | | | |
| Raised Pavement Marker installation plant | | | | | | M | | | | |
| High friction Surfacing application plant | | | | | | | M | | | |
| Hand-held spray or other application equipment | | | | R | | | M | | | M |
| Pavement marking removal equipment | | | | | | | | M | R | |
| Supply vehicle | M | M | M | M | M | M | M | | | |
| Lead and tail vehicles | M | R | R | | R | | | | | |
| Arrow and symbol templates shall be of correct shape and dimensions | | | | M | M | | | | | M |
| All vehicles to hold current registration, be roadworthy and hold the necessary permits (i.e. wide load) | M | M | M | M | M | M | M | M | M | M |

Legend M = mandatory requirement; R = recommended or optional requirement.
Note 1: For definitions of Classes, refer PCCP Document PP-D031.

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TABLE 4 – STANDARDS & PROCEDURES REQUIREMENTS

| Documented Procedures Required | Class requirement ⁽¹⁾ | | | | | | | | | |
|---|----------------------------------|--------|--------|--------|--------|--------|--------|----|----|----|
| | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| Relevant copies of AS 4049/ AS 1906/ AS 1742 standards | M | M | M | M | M | M | M | M | | M |
| Copies of relevant local, state or Australian government marking format requirements | M | M | M | M | M | M | M | M | | M |
| Procedure for the field calibration of paint, thermoplastic or multi-component materials and glass bead or aggregate application rates | M | M | M | M | M | | M | | | M |
| Procedure for control of paint, thermoplastic or multi-component materials and glass bead or aggregate application rates by the applicator | M | M | M | M | M | | M | | | M |
| Procedure for verification of paint, thermoplastic or multi-component materials and glass bead or aggregate application rates by the applicator | M | M | M | M | M | | M | | | M |
| Procedure for the spotting of new line marking work | M | M | M | M | | | | | | M |
| Procedure for the spotting of new intersection marking work | | | | | M | | | | | |
| Procedure for the spotting of new RPM work | | | | | | M | | | | |
| Procedure for the application of intersection markings | | | | | M | | M | | | |
| Procedure for the mixing and application of non-skid paint | | | | | | | M | | | |
| Procedure for the application of high friction surfacing | | | | | | | M | | | |
| Procedure for the determination of on-road performance of marking systems | M or R | M or R | M or R | M or R | M or R | M or R | M or R | | | |
| Procedure for the application of RRPM's | | | | | | M | | | | |
| Procedure for the removal of pavement markings | | | | | | | | M | M | |
| Procedure for the assessment of the effectiveness of the removal of pavement markings | | | | | | | | M | M | |

Legend M = mandatory requirement; R = recommended or optional requirement.
 M or R = Mandatory if required by client; otherwise Recommended.

Note 1: For definitions of Classes, refer PCCP Document PP-D031.

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TABLE 5 – FIELD PERFORMANCE ASSESSMENT REQUIREMENTS

| Assessment Criteria | Class requirement ⁽¹⁾ | | | | | | | | | |
|--|----------------------------------|----|----|----|----|----|----|----|----|----|
| | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| Fully functioning arrow boards and flashing lights complying with AS 1742.3. Note that where night/ day arrow boards are used, both modes must be operative and effective. | M | M | M | M | M | M | M | M | | M |
| Traffic control in accordance with AS 1742.3 | M | M | M | M | M | M | M | M | | M |
| Speedometer graduated, accurate and readable to 1km/h or better | M | | M | | | | | | | |
| Distance measurement device used for confirmation of marking distances (eg for accounting purposes) shall be accurate to at least 1% | M | M | M | | | | | | | |
| Mechanical or electronic means of monitoring liquid binder application rates | M | | | | | | | | | |
| Multiple guns to allow application of barrier lines in one pass | M | O | | | | | | | | |
| Spray gun configuration to ensure application of binder to leading and trailing surfaces of pavement aggregate. | M | O | | | | | | | | |
| Control of paint, thermoplastic or multi-component application rate | M | M | M | | | | | | | |
| Control of glass bead application rate | M | M | M | | | | | | | |
| Control of aggregate application rate, where applicable | M | M | M | | | | | | | |
| Accurate transverse placement of new and maintenance line markings | M | M | M | | | | | | | |
| Accurate longitudinal placement of new and maintenance markings | M | M | M | | | | | | | M |
| Control of line, gap and module length of new line markings (produced by pattern generator) | M | M | M | | | | | | | M |
| Accurate transverse placement of maintenance line over existing line | M | M | M | | | | | | | |
| Control of line width | M | M | M | | | | | | | M |
| Synchronisation of start and shut-off of all guns | M | M | M | | | | | | | |
| Guns shall apply liquid binder, glass beads and aggregate evenly across the width of the line | M | M | M | | | | | | | |
| Bead guns shall ensure that >80% of glass beads fall on the wet painted line | M | M | M | | | | | | | |
| Accurate placement of spotting | M | M | M | M | M | M | | | | M |
| Accurate placement of markers | | | | | | M | | | | |
| Adhesive covering whole base of markers | | | | | | M | | | | |
| Markers correctly oriented and aligned | | | | | | M | | | | |

