



PCCP TECHNICAL NOTE – USE OF EXTERNAL CALIBRATION LABORATORIES

Editorial Note: This version of the document is the original.

1. SCOPE

This Document describes how an accredited contractor makes use of an external calibrating laboratory for the purposes of ensuring their inspection and test equipment deliver readings of an accuracy sufficient on which to make informed decisions.

2. AUTHORITY & RESPONSIBILITY

- a) The Executive Officer, PCCP (EO) is accountable for the content of this document and has the authority to implement its requirements.

3. REFERENCED DOCUMENTS

NATA Industry User Guide No. 2 Working with NATA Accredited Calibration Laboratories (NIUG2) available at;
<http://www.nata.com.au/nata/nata-enews/1126-industry-user-guide-no-2-calibration>

NATA Mutual Recognition Arrangement Network available at;
http://www.nata.com.au/nata/phocadownload/publications/international_publications/nata_mra_network.pdf

NATA documents are available from the NATA website at <http://www.nata.asn.au/>

This procedure makes reference to the following PCCP documents;
PP-D001 – How PCCP Operates
PP-D003 – Schedule of Fees
PP-D004 – Complaint Handling

All PCCP documents and forms are available for downloading from the Documents section of the PCCP web site at;
<http://www.pccp.gov.au/pccp/doclistpccp.asp>

4. ACRONYMS & DEFINITIONS

4.1 Acronyms used in this document

CSIRO	Commonwealth Scientific and Industrial Research Organisation; the Australian government's primary research facility.
EO	Executive Officer of the PCCP scheme
ITE	Inspection and test equipment
NATA	National Association of Testing Authorities
PCCP	Painting Contractor Certification Program

4.2 Definitions

- a. Calibration – an operation that, under specified conditions, in a first step, establishes a relation between the quantity values with measurement uncertainties provided by measurement standards and corresponding indication with associated measurement uncertainties and, in a second step, uses the information to establish a relation for obtaining a measurement result for an indication. (Source NATA's General Equipment – Calibrations and Checks July 2014 page 3; extract from ISO/IES Guide 99 (2007) 2.3.9)
- b. Checking – a measurement of at least one point in a range of a measuring instrument against a known value to confirm that it has not deviated significantly from its original calibrated value. It is also an examination of the condition of an artefact ie the reference of known value, to determine that it has not been adversely affected by constant use. (Source same as 4.2a) above).

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5. CALIBRATION REQUIREMENT

5.1 General

- a) How PCCP operates is described in more detail in document D001 and other cross-referenced documents.
- b) PCCP accreditation provides confidence to government departments and instrumentalities that painting contractors of choice operate their businesses in accordance with the principles of good business practice detailed in PCCP documents. Part of these requirements relate to the operation and maintenance of inspection and test instruments or equipment that are used to provide evidence of compliance to requirements such as painting specifications or accreditation.
- c) ITE readings are often used to support decision making eg are environmental conditions (temperature &/or relative humidity) such that spray painting outside can be carried out. Consequently, there needs to be a high degree of confidence in, and reliance on, ITE readings.
- d) Attaining this high degree of confidence in, and reliance on, ITE readings can only be achieved by ensuring the ITE is operating as intended by the manufacturer and is calibrated to provide readings of sufficient accuracy. Hence, selection of an appropriate calibrating laboratory or authority is of vital importance to good decision making.

5.2 Authority selection

- a) Selection of an appropriate authority to carry out ITE calibration is important. As stated in NIUG2:

“Calibration is about determining errors in your instrument or device, not about adjusting it. Although a laboratory may undertake action to bring an item undergoing calibration back within a given specification, adjustment is an activity additional to the calibration process and you must specify whether this is to be done.” [Source: NIUG2 p2 Mind your language].

- b) Criteria acceptable to PCCP for the selection of an appropriate authority are (in descending order of importance);
 - i). That the laboratory is accredited to perform calibration activities on the specific ITE by NATA under ISO 17025. Refer 5.3 below for additional details.
 - ii). That the laboratory is approved by PCCP as complying with PCCP’s defined minimum standards of calibration and is listed in Table 2 of the current version this document. Refer clause 6 below below for additional details
- c) By using NATA accredited laboratories for calibration, traceability to national or international standards is ensured. Non-accredited organisations may either not mention any traceability or include questionable statements such as “traceable to NATA” in their reports. Users need to be aware that NATA hold no measurement standards whatsoever, hence it is a meaningless statement and provides no assurance of measurement traceability. (source NIUG2 Traceability).

5.3 NATA accredited laboratories

- a) Calibrating laboratories for the types of ITE in common use by PCCP accredited contractors are listed in Table 1 below.

Note 1 – *This list is not claimed to be exhaustive or complete. Contractors looking for calibrating authorities should make their own enquiries among those laboratories listed on the NATA website and choose a suitable service provider that meets all their needs.*

- b) It is important to note that organisations under 5.2b)ii) cannot provide the same level of confidence in the accuracy or validity of their test results that a NATA accredited laboratory can. This may become an issue where litigation is involved and PCCP strongly recommend the use of only NATA accredited calibrating laboratories.
- c) Where NATA accreditation is mentioned in this document, it is implied that any other organisation that is a signatory to the Mutual Recognition Arrangement (MRA) Network (see clause 3 above) is also an acceptable authority for laboratory accreditation.

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5.4 Other non-accredited laboratories

- a) Non-accredited laboratories or organisations that have satisfied the PCCP requirements detailed in clause 6.2 are listed in Table 2 below and may be used where a NATA accredited laboratory does not exist or is not available to provide calibration services.

6. NON NATA LISTING PROCESS

6.1 Application

- a) Organisations wishing to be listed in Table 2 below shall make application to PCCP on the appropriate form.
- b) The Applicant shall provide evidence of compliance with the requirements of clause 6.2 below.
- c) The EO shall ensure a Service Agreement is prepared and sent to the Applicant for signing. Once the signed Agreement is received, an invoice for the application fee shall be raised.
- d) The Applicant shall submit to PCCP an example of reporting format to be used. The example may be either an actual report with all required content as per 6.2f) below or a pro-forma template report.
- e) The EO shall review the evidence of compliance as supplied and either;
- i). Resolve with the Applicant any issues such as missing or incorrect data, or
 - ii). Reject the application if the issues in i) cannot be satisfactorily resolved.
- f) The Applicant shall submit to an audit of their testing facility by a PCCP officer/s. The entire cost of the audit including any travel expenses shall be borne by the Applicant and paid in full prior to the audit. Fees are listed in PCCP document D003.
- g) Following the audit and audit report shall be prepared detailing any shortcomings between compliance requirements and what was seen on audit day. The Applicant shall have 4 weeks to correct these shortcomings and provide objective evidence of the corrective actions taken.
- h) The EO shall review all aspects of the Application including audit corrective actions as supplied and either;
- i). Resolve with the Applicant any issues, or
 - ii). Approve the application (unless the issues in 6.1e)i) were not able to be resolved) or
 - iii). Reject the application.
- i) The EO shall advise the Applicant in writing of the decision to list or otherwise and Table 2 below shall be updated and uploaded to the website as soon as practicable.

6.2 Compliance criteria

- a) The Applicant shall have documented process for the receipt, recording, testing and reporting of the instrument checking process.
- b) The process shall ensure that ITE accepted for test is received and recorded so that there is no confusion or mix up as to the client or the instrument.
- c) The Applicant shall document the process for testing each type of ITE.
- d) The Applicant shall ensure that employees used to perform the tests are adequately trained, skilled and experienced in performing that specific test. Records of staff skills, experience etc shall be kept.
- e) The test process shall be performed under conditions appropriate to the ITE's normal use environment or as documented in the process eg ambient test temperature & relative humidity etc
- f) At the completion of the test process a test report shall be prepared containing the following elements;
- i). The name, physical address and ABN of the testing authority, and
 - ii). The name and address of the client, and
 - iii). A unique report number with page number and total number of pages indicated, and
 - iv). Full details to uniquely identify the ITE being tested – make, model, serial number, other identifying mark eg engraved equipment number, and
 - v). Date of receipt of the ITE for test, and
 - vi). Date/s of performance of the test/s, and
 - vii). Reference to the test method used, and
 - viii). Name and position of the person who performed the test/s, and
 - ix). Details of any unique measurement details if applicable eg location on the ITE where readings were taken etc, and

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- x). Table of results obtained including any reference readings, test readings, expected values eg from a label, and
 - xi). A statement about the management system under which the work was taken eg external accreditation/s if any, and
 - xii). A statement about the traceability of any reference standards to national or international standards, and
 - xiii). A statement about the uncertainty of the measurement/s if known, and
 - xiv). Signature of the person who performed the test, and
 - xv). Identification and signature of the person reviewing and authorising the test report
- h) Satisfactory resolution of the issue/s shall result in the re-listing of the facility for a further 2 years. Unsatisfactory resolution shall result in the delisting of the facility.

7. COMPLAINTS & APPEALS

All complaints and appeals shall be handled in accordance with the process documented in PCCP document D004.

6.3 Post-application activities

- a) PCCP contractors wishing to have their ITE calibrated shall contact either a Table 1 or a Table 2 organisation and make their own arrangements.
- b) Table 2 listed organisations shall pay an annual subscription to have their listing maintained. The subscription amount is included in D003.
- c) Table 2 listed organisations shall be issued with a Certificate of Recognition as a checking facility for the purposes of PCCP. The certificate shall have a maximum period of validity of two (2) years after which re-validation shall occur.
- d) During the life of the certificate the onus is on the Recognised facility to advise the EO of any changes to report format, equipment related to the recognised capability and checking procedure/s.
- e) Re-validation shall consist of:
 - i). An application letter including
 - ii). Details of changes to key personnel, equipment and report format related to the recognised capability
- f) Where the changes are deemed by the EO to have minimal to no impact on the quality of the service, the EO shall issue a new certificate for a further two (2) year period.
- g) Where the changes are deemed by the EO to potentially have a major impact on the quality of the service, the EO shall attempt to resolve the issue by discussing the matter with the nominated contact in the organisation. If necessary, a supplementary audit may be required.

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8.1 NATA Accredited Calibrating Laboratories

The following laboratories are accredited by NATA (at the time of publication of this Technical Note – refer the NATA website for updated information on their status) for the conduct of calibrations for the parameters listed;

Table 1 NATA Accredited Calibrating Laboratories		
Facility name	Facility contact details	Competencies ¹
Abstec Calibrations Aust NATA accreditation #11087	www.abstec-calibrations.com.au Contact: Mr G L Smith Phone: (08) 8244 1355 Fax: (08) 8445 1377 Email: graham.smith@abstec-calibrations.com.au Address: 79 Ledger Road, BEVERLEY SA 500	1.03.29 dimensional measurements (length, thickness) 1.11.01 mass standards 1.12.01 balances 1.80.11 thermometers
Australian Calibrating Services (A'asia) P/L NATA accreditation # 1239	www.auscal.com.au Contact: Mr J T Kennon Phone: (03) 9417 5688 Fax: (03) 9417 1578 Email: timkennon@auscal.com.au Address: 126 Oxford Street, COLLINGWOOD VIC 3066	1.03.29 dimensional measurements (length, thickness) 1.11.01 mass standards 1.12.01 balances 1.80.11 thermometers 1.83.10 humidity
Thales Australia NATA accreditation # 99	www.thalesgroup.com.au Contact: Mr L Mackinnon Phone: (03) 9319 4444 Fax: (03) 9317 9954 Email: leigh.mackinnon@thalesgroup.com.au Address: 421-449 Gordon Street, MARIBYRNONG VIC 3032	1.03.29 dimensional measurements (length, thickness) 1.11.01 mass standards 1.12.01 balances 1.41.13 time 1.80.11 thermometers 1.83.10 humidity

Note 1 – Partial extract from the NATA website as at March 2015. For full and current listing, refer the NATA website at www.nata.asn.au

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The following non-accredited laboratories are recognised by PCCP as complying with the criteria listed in clause 6.2 above;

Table 2 Non-accredited ITE checking Laboratories		
Facility name	Facility contact details	Competencies ¹
Corrotech (Blast-One)	www.blastone.com.au Contact: Mr M. Freeman Phone: (08) 8292 1095 Fax: (07) 3329 5066 Email: mark.freeman@blastone.com Address: 585 Mersey Road North, Osborne SA, 5017	Dimensional (Coating Thickness/Micrometers) Temperature Humidity Voltages (DC only) Resistance (ohms) Co meters.