

Accreditation of Testing Laboratories for P25 CAP Laboratory Recognition



The NZ mark of competence Tohu Matatau Aotearoa

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Supplementary Criteria for Accreditation

United States Department of Homeland Security

Accreditation of Testing Laboratories for P25 CAP Laboratory Recognition

AS LAB C3.2

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International Accreditation New Zealand 626 Great South Road, Ellerslie, Auckland 1051 Private Bag 28908, Remuera, Auckland 1541, New Zealand Telephone: +64 9 525 6655 Email: <u>info@ianz.govt.nz</u> Internet: <u>www.ianz.govt.nz</u>

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Contents

1	Intro	oduction	6
2	Adn	ninistrative Requirements	7
	2.1	DHS 25 CAP Laboratory Recognition Process and Procedures	7
	2.2	IANZ as a DHS-Authorized P25 CAP Accreditation Body	7
	2.3	Accreditation Criteria – Management Requirements	8
3	Tec	hnical Requirements	8
	3.1	Personnel	8
	3.2	Test Methods and Test Equipment	8
	3.3	Proficiency Testing (Inter-laboratory Comparisons)	9
	3.4	Reporting	9



1 Introduction

1.1 International Accreditation New Zealand's (IANZ) Supplementary Criteria provide supplementary information to the General Criteria for Accreditation for specific types or groups of tests or calibrations. They provide detail or add extra information to the generally stated requirements of IANZ General Criteria for Accreditation and IANZ Specific Criteria for the particular field.

1.2 This supplementary criteria details the specific requirements covering the accreditation of laboratories seeking recognition by the United States Department of Homeland Security (DHS) Science and Technology Directorate (S&T) under its Office for Interoperability and Compatibility's (OIC) Project 25 Compliance Assessment Program (P25 CAP).

1.3 This is a supplementary document to IANZ Specific Criteria 3 (AS LAB C3), which includes requirements for electrical testing laboratories generally. This document must be read in conjunction with the current issues of following standard and IANZ publications:

- (a) ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories
- (b) Specific Criteria for Accreditation: Electrical Testing (AS LAB C3)

(c) Procedures and Conditions for Accreditation (AS 1)

1.4 The United States DHS OIC P25 CAP is a voluntary programme that allows P25 radiocommunications equipment suppliers to formally demonstrate their products' compliance with a select group of requirements within the suite of P25 standards. The purpose of the program is to provide United States emergency response agencies with evidence that the communications equipment they purchase meets P25 standards for performance, conformance and interoperability.

The program requires test laboratories to demonstrate their competence through accreditation by a DHSauthorized P25 CAP accreditation body, with accreditation a prerequisite to becoming a P25 CAP Recognised Laboratory. All radio-communications equipment suppliers that participate in the P25 CAP must use recognised laboratories to conduct performance, conformance and interoperability test on their products. The P25 equipment suppliers release Summary Test Reports (STR) and Supplier's Declarations of Compliance (SDoC) documents, based on Detailed Test Reports (DTR) from DHS-recognized laboratory(s) that performed the product testing, thereby increasing confidence in the performance, conformance and interoperability of P25 equipment.

The policies, standards, tests and types of tests, and operational procedures of the P25 CAP have been comprehensively documented by the DHS S&T OIC in a series of publications called *Project 25 Compliance Assessment Bulletins*. Up-to-date versions of all Bulletins and related P25 CAP resources are available at https://www.dhs.gov/science-and-technology/p25-cap. Any laboratory considering IANZ accreditation for the purposes of becoming a P25 CAP Recognised Laboratory needs to familiarise themselves in full with the content of this website.

1.5 IANZ has sought and obtained authorization from the DHS as a DHS-Authorized P25 CAP accreditation body. Thus IANZ accreditations granted in accordance with the criteria set out in this document will be recognised by the DHS for the purposes of P25 CAP laboratory recognition.

1.6 To administratively accommodate the specific nature of an accreditation granted in accordance with this document, a separate Class of Test has been developed to be listed on the Schedule to Certificate of Accreditation:

3.44 United States Department of Homeland Security P25 CAP Recognised Laboratory

The addition of this Class of Test to the scope of accreditation may be granted only when the organisation has demonstrated conformity with the criteria for accreditation as an Electrical Testing Laboratory and the additional specific requirements set out in this document.



2 Administrative Requirements

The DHS S&T OIC requirements for the administration of the P25 CAP, including the accreditation and recognition of testing laboratories, are defined in the P25 Compliance Assessment Bulletins (see Section 1.4 above). Current versions of these publications are readily available and thus specific requirements called-up therein are not repeated in this publication. Rather this publication will provide a signpost to the relevant P25 Compliance Assessment Bulletin and highlight, for information, any identified key variations from the IANZ Electrical Testing laboratory accreditation programme. However, the key variations identified may not necessarily be complete or current - in all cases, the requirements set out in the current version of the relevant P25 Compliance Assessment Bulletin take precedence over this publication. This publication will also detail any additional IANZ administrative requirements for the accreditation of P25 CAP recognized laboratories.

2.1 **DHS 25 CAP Laboratory Recognition Process and Procedures**

- (a) The DHS P25 CAP Laboratory Recognition Process is outlined in the P25 CAP Compliance Assessment Bulletin: Baseline Laboratory Requirements (P25-CAB-LAB BASE REQ). Laboratories first have to apply for and be granted accreditation from IANZ for Class of Test 3.44. The accredited laboratory must then submit the following documentation to DHS in order to be granted DHS P25 CAP Recognized Laboratory status:
 - Certificate of Accreditation (issued by IANZ)
 - Schedule to Certificate of Accreditation (issued by IANZ: the scope of accreditation including • Class of Test 3.44)
 - A signed DHS P25 CAP Laboratory Recognition Agreement [P25 CAP Compliance Assessment Bulletin: Laboratory Recognition – Conditions and Criteria Agreement (P25-CAB-LAB REC AGREEMENT)].

It is the responsibility of the accredited laboratory to administer the DHS Laboratory Recognition process with the DHS S&T OIC.

(b) The scope of accreditation granted by IANZ (the Schedule to Certificate of Accreditation) will, under Class of Test 3.44, identify the type of testing and list the actual test methods (as called up in the relevant P25 Compliance Assessment Bulletin) that the laboratory has applied for accreditation and for which it has demonstrated its competence (met accreditation criteria). It is the responsibility of the applicant laboratory to apply, in advance of an on-site assessment, for accreditation for those particular tests which it is requires accreditation/recognition.

2.2 IANZ as a DHS-Authorized P25 CAP Accreditation Body

IANZ has agreed to and signed the Project 25 Compliance Assessment Bulletin: Accreditation Body Authorization - Conditions and Criteria Agreement (P25-CAB-AB_AUTH_AGREEMENT). This places a number of obligations on IANZ under its authorization, which in a number of cases will have an impact (actual or potential) on laboratories seeking accreditation under Class of Test 3.44.

- (a) Given the expected small number of laboratories in New Zealand seeking accreditation to Class of Test 3.44 and the specialist nature of the P25 CAP, IANZ will be seeking the services of Technical Experts outside of New Zealand to join assessment teams at reassessments. These experts will be required to have a working knowledge of the P25 CAP technical standards and the requirements contained in the P25 CAP Compliance Assessment Bulletins, and meet the minimum criteria set out in the Accreditation Body Authorization Agreement. These will generally be sourced through IANZ's ILAC MRA partner accreditation bodies (e.g. from the USA) who are active in accreditation of laboratories for DHS P25 CAP recognition. Given such experts are likely to charge for their services and the added costs of international travel, laboratories seeking and maintaining accreditation for Class of Test 3.44 can expect increased costs associated with IANZ reassessments given all the aforementioned costs will be recovered directly from the laboratory.
- (b) Laboratories agree to allow DHS-authorized representatives to accompany, as observers, IANZ assessment teams to the assessment of their laboratory.
- Laboratories agree to allow IANZ to provide to DHS, on request, copies of accredited laboratories' (c) assessment documentation related to the DHS P25 CAP accreditation program, including laboratory corrective action plans and documentation of resolution of assessment findings.



- Laboratories agree that IANZ will notify DHS in writing of any action taken by IANZ that adversely (d) affects the accreditation status of a DHS P25 CAP accredited laboratory. In accordance with P25-CAB-LAB_BASE_REQ, this will, in the case of suspension of accreditation, include notifying the DHS of the reasons for and conditions of the suspension, and what action is required to have accreditation reinstated.
- (e) Laboratories agree to abide by DHS decisions on to the resolution of queries related to DHS P25 CAP test methods.
- As specified in P25-CAB-LAB REC AGREEMENT, laboratories agree to notify IANZ within 30 days (f) of any major changes that affect the laboratory's operational or accredited status.
- Where these are available, IANZ will make use of DHS-sourced checklists during the conduct of (g) assessments.

As allowed for in the Accreditation Body Authorization Agreement, laboratories accredited for Class of Test 3.44 will undergo the same on-site assessment frequency as other IANZ-accredited Electrical Testing laboratories. This follows a four-year cycle with a full reassessment in the fourth year, a technical assessment in the second year and with two on-site surveillance assessments in the intervening years.

2.3 Accreditation Criteria – Management Requirements

DHS has highlighted (in P25-CAB-AB_AUTH_AGREEMENT, and also called up in P25-CAB-LAB REC AGREEMENT) that IANZ must give particular attention to the assessment of the ISO/IEC 17025 requirements relating to impartiality of the accredited laboratory and to laboratory management personnel's freedom from undue internal or external commercial, financial, or other pressures or influences that could adversely affect the quality of their work. IANZ will systematically monitor on an on-going basis, the impartiality of laboratories accredited for Class of Test 3.44.

3 **Technical Requirements**

3.1 Personnel

IANZ Key Technical Personnel for Class of Test 3.44 must, in addition to the general requirements of Key Technical Personnel in electrical testing laboratories, be able to demonstrate to an IANZ assessment team:

- A working knowledge of the P25 CAP procedures as set out in the P25 CAP Compliance Assessment (i) Bulletins, appropriate to their laboratory's role in the compliance assessment process. A sound knowledge of where their laboratory, its recognition and the testing it carries out, fits in the radiocommunications equipment P25 compliance is expected.
- (ii) A working knowledge of the requirements for accreditation and recognition of their testing laboratory (i.e. this document and the P25 Compliance Assessment Bulletins called-up herein).
- (iii) A working knowledge of the tests required by the relevant P25 Compliance Assessment Bulletins on the particular radio-communications equipment for which P25 compliance is sought, and on the technical conduct of such tests.

3.2 **Test Methods and Test Equipment**

The laboratory shall conduct the appropriate tests, and use the test methods and test equipment specified in the relevant P25 Compliance Assessment Bulletins. It is the responsibility of the laboratory - in consultation with its customer (the radio-communication equipment supplier) - to ensure the selection of tests, test methods and associated equipment is appropriate to the radio-communication equipment being tested and that the tests are conducted/operated as specified. The key Bulletins are as follows:

- P25 CAP Compliance Assessment Bulletin: Baseline Laboratory Requirements (P25-CAB-(i) LAB BASE REQ) - with particular note of the definition of a P25 Compliance Test Method
- (ii) P25 CAP Compliance Assessment Bulletin: Laboratory Equipment Requirements (P25-CAB-LAB EQP REQ). Compliance with the relevant requirements of this Bulletin is mandatory for laboratories accredited for Class of Test 3.44.



The following Bulletins are targeted primarily at the radio-communications equipment suppliers, but some content will have relevance to the testing service provided by P25 CAP recognized laboratories and accredited laboratories are expected to maintain a working knowledge relevant to the testing services provided.

- (iii) P25 CAP Compliance Assessment Bulletin: Testing Requirements (P25-CAB-TEST_REQ).
- (iv) P25 CAP Compliance Assessment Bulletin: Baseline Common Air Interface Testing Requirements (P25-CAB-CAI_TEST_REQ)
- (v) P25 CAP Compliance Assessment Bulletin: Baseline Inter-RF Sub-System Interface Testing Requirements (P25-CAB-ISSI_TEST_REQ)

3.3 **Proficiency Testing (Inter-laboratory Comparisons)**

Accredited laboratories are required to demonstrate their conformity with the IANZ policy on the participation in proficiency testing activities, detailed in the IANZ publication "Technical Policy No.2: Participation in Proficiency Testing Activities" (AS TP2).

The P25 CAP Compliance Assessment Bulletin: Laboratory Recognition – Conditions and Criteria Agreement (P25-CAB-LAB_REC_AGREEMENT) requires P25 CAP recognized laboratories to participate in relevant and available proficiency testing activities where so requested by DHS and/or IANZ. Results and any follow-up action must also be provided where requested by DHS and/or IANZ.

3.4 Reporting

Accredited laboratories shall report the results of the tests conducted in accordance with requirements of ISO/IEC 17025, and that in the case of DHS P25 CAP recognised laboratories, these test reports constitute the Detailed Test Reports referred to in Section 1.4 above.

It is considered the radio-communication equipment suppliers' responsibility to assemble and produce the Summary Test Reports (STR) [and Supplier's Declaration of Compliance (SDoC)] for submission to the DHS. Requirements for both these types of documentation are detailed in the following P25 CAP Compliance Assessment Bulletins:

- (i) P25 CAP Compliance Assessment Bulletin: Summary Test Report Requirements (P25-CAB-STR_REQ)
- (ii) P25 CAP Compliance Assessment Bulletin: Supplier's Declaration of Compliance Requirements (P25-CAB-SDOC_REQ)

DHS P25 CAP recognized laboratories should be familiar (format, content, terminology, method references, compliance limits, etc.) with both documents to ensure the required information is provided as part of the DTRs.

