

Purpose:

This document describes COLA's policy related to proficiency testing (PT) for cannabis testing laboratories enrolled in COLA's ISO/IEC 17025:2017 accreditation program. The need to verify the competence of the laboratory through PT is a vital part of the COLA accreditation process. It is important for applicant laboratories to demonstrate competence within their scope of practice prior to accreditation, and conversely, for accredited laboratories to maintain accreditation through successful participation. COLA, as an Accreditation Body (AB), in its purview, aligns with the International Laboratory Accreditation Cooperation (ILAC) Policy for Participation in Proficiency Testing Activities (ILAC-P9).

General Requirements:

In accordance with ISO/IEC 17025:2017 Subsection 7.7, laboratories seeking accreditation or already accredited must ensure the validity of results from testing. Proficiency Testing is part of meeting this requirement. As outlined in 7.7.2 of ISO/IEC 17025:2017, laboratories shall continuously evaluate their performance through results derived from planned participation in inter-laboratory comparison (ILC) or PT, where available and appropriate. The results obtained through either inter-laboratory comparison or PT must be reviewed by the laboratory to determine satisfactory performance.

The demonstration of satisfactory participation in PT is an important component of laboratory operations related to determining technical competency. It is well established that PT or ILC is an effective tool for the education of laboratory personnel and risk assessment of the laboratory performance. It is incumbent upon laboratory management to ensure the laboratory participates in an approved program as part of the accreditation requirement.

COLA recognizes that there may be areas of testing where suitable PT may not exist and therefore encourages laboratories to seek its guidance to find a suitable alternative that can measure and assess laboratory performance. Laboratories seeking COLA accreditation must also develop a PT master plan that addresses the scope of testing being performed. A laboratory may seek COLA's assistance in PT plan development.

Terminology:

Inter-laboratory comparison (ILC) is the organization, performance and evaluation of measurements or tests on the same or similar items *by two or more laboratories* in accordance with predetermined conditions (3.3 of ISO/IEC 17025: 2017).

Intra-laboratory comparison is the organization, performance and evaluation of measurements or tests on the same or similar items *within the same laboratory* in accordance with predetermined conditions (3.4 of ISO/IEC 17025: 2017).

Proficiency Testing (PT) is the evaluation of participant performance against pre-established criteria by means of inter-laboratory comparison (3.5 of ISO/IEC 17025: 2017).

Proficiency Testing Plan is a written framework for ensuring PT participation and demonstration of technical competency inclusive of all testing performed.



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Specific Requirements:

PT Plan: Laboratories must provide a written framework for ensuring PT participation and demonstration of technical competency. The plan must encompass the frequency of PT participation, competency and scope of authorized testing personnel, equipment, and testing method(s), corrective action for unsatisfactory performance, and graded results review and evaluation. This plan must be adaptable and updated, as necessary, as part of ongoing management reviews.

PT Cautions: PT samples must not be sent to another laboratory for testing, as this would defeat the inherent value of PT.

PT Performance Requirements: To gain the greatest benefit from PT, samples should be tested in the same manner as regular laboratory sample testing. Laboratory should ensure that PT samples are evenly distributed among trained and competent staff to be performed based on their respective testing capabilities. Accredited laboratories with multiple methods or in more than one field of testing (discipline) are required to participate in at least two PT events per year in each of the method or discipline.

PT Corrective Action: PT data must be analyzed and used to control and, if applicable, improve the laboratory's activities. If the PT results fall outside pre-defined criteria, appropriate care and action must be taken to prevent incorrect results from being reported until the fault that resulted in the unsatisfactory PT event is identified and corrective action is implemented.

Accreditation PT Requirement: Before accreditation is granted, applicant laboratories must demonstrate validity and technical competence through at least one satisfactory PT performance. To avoid delay in accreditation, applicant laboratories are encouraged to enroll with a commercial PT program as early as possible. Accredited laboratories must participate in a minimum of two (2) events annually. In some cases, state regulations may specify a great frequency.

Recommended PT Providers

To achieve conformity to the ISO/IEC 17025 standard related to laboratory competency, cannabis testing laboratories should enroll in an ISO/IEC 17043 certified PT program. The following ISO/IEC 17043 certified PT providers for cannabis testing laboratories are shown below:

- Emerald Scientific
- Phenova
- NSI Lab Solutions
- Absolute Standards, Inc.

PT Results to COLA

Results from PT and ILC must be kept on file in the laboratory to be evaluated by the assessor during the on-site visit. COLA may require the laboratory to submit evidence of such comparison on demand to determine



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continued technical competency because of a complaint, in response to a nonconformity, or significant changes that may affect laboratory performance or operation.

Document Retention:

Proficiency testing results and inter-laboratory comparison results must be kept for the period of accreditation. COLA's accreditation cycle is every three years so this is the minimum years of retention of PT documents.

Key References:

ES ISO/IEC 17011:2017 Conformity assessment – Requirements for accreditation bodies accrediting conformity assessment bodies

ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories

ISO/IEC 17043:2010 Conformity assessment – General requirements for proficiency testing

ILAC – P9 ILAC Policy for Participation in Proficiency Testing Activities

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