


# AIHA PAT Programs Participation Policies

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## Proficiency Analytical Testing Programs Overview

### 1.1 PURPOSE AND OBJECTIVE

The management of the AIHA Proficiency Analytical Testing Programs (AIHA PAT Programs) is committed to the quality of its proficiency testing (PT) services to participants and other customers. The purpose of the AIHA PAT Programs' Proficiency Analytical Testing (PAT) programs is to provide participants with the opportunity to improve and refine their analytical skills while performing various analyses or testing new procedures and to demonstrate proficiency with established test methods. These programs are open to all interested participants. The objective of these programs is to allow participants to demonstrate their ability to correctly analyze samples by determination of assigned values for quantitative analysis and correct identification for those test items that are qualitative.

### 1.2 MANNER OF ACTING

AIHA PAT Programs avoids involvement in any activities that might diminish confidence in its competence, impartiality, judgment, or operational integrity by employing staff and partnering with subcontractors that are qualified and experienced; utilizing the advice and assistance of qualified technical experts forming the Proficiency Analytical Testing Board (PAT Board); requiring confidentiality and conflict of interest agreements from all staff, subcontractors, experts, and advisors. AIHA PAT Programs does not subcontract the planning of the scheme, but the Director, AIHA PAT Programs, utilizes and takes advice and assistance from the PAT Board, along with input from participants, accreditation bodies, regulators, other experts, and advisors in scheme development.

#### 1.2.1 Confidentiality

AIHA PAT Programs, through processes, procedures, and associated documentation, ensures the confidentiality of all participant information reviewed, submitted, and held as record. All participant information including data, reports and proprietary information is protected and kept confidential during electronic storage and transmission. When an interested party requires the proficiency test results to be directly provided by the proficiency testing provider, the participant is made aware of the arrangement in advance of participation. When a regulatory authority requires proficiency testing results to be directly provided to the authority by the proficiency testing provider, the affected participants are notified of this action in writing.


The PAT Board conducts the technical business of the AIHA PAT Programs by providing technical expertise and experience in the relevant fields of testing, sampling, as well as statistics according to the *PAT Board Member Duties and Responsibilities* available on the AIHA PAT Programs Website at [www.aihapat.org](http://www.aihapat.org).

**1.2.2** A simple majority of the PAT Board members eligible to vote shall be required on a formal vote, electronic vote, or meeting vote, at which a quorum is present or included, for matters regarding the AIHA PAT Programs. As necessary, a vote may be required for authorizing the release of reports when major discrepancies arise.

**1.2.3** PAT Board members shall comply with the *PAT Board Conflict of Interest and Confidentiality Policies* specified in section 1.2.1.

### 1.3 AUTHORITY

The PAT Board operates the PAT Programs under the authority granted by AIHA PAT Programs management. The role and responsibilities of the PAT Board are set forth in the *PAT Board Duties and Responsibilities* and *PAT Board Governance* documents available on the AIHA PAT Programs Website at [www.aihapat.org](http://www.aihapat.org).

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## Requirements and Conditions for Participation in Proficiency Analytical Testing Programs

### 2.1 PROFICIENCY ANALYTICAL TESTING (PAT) SCHEME DESIGNS

The PT schemes offered by AIHA PAT Programs include the following: Industrial Hygiene Proficiency Analytical Testing, Environmental Lead Proficiency Analytical Testing, Environmental Microbiology Proficiency Analytical Testing, Bulk Asbestos Proficiency Analytical Testing, and Beryllium Proficiency Analytical Testing. The planning of the proficiency testing scheme is accomplished by the incorporation of relevant international standards, recommended practices, and input from stakeholders. Program descriptions are available on the AIHA PAT Programs website [www.aihapat.org](http://www.aihapat.org). Scheme planning is not subcontracted but some services of the proficiency testing scheme may be subcontracted (see the AIHA PAT Programs website [www.aihapat.org](http://www.aihapat.org)). AIHA PAT Programs maintains responsibility for the subcontractor's work, except in the case where a regulatory authority specifies which subcontractor is to be used. When subcontracting occurs, it is placed with a competent subcontractor and AIHA PAT Programs is responsible for this subcontracted work. AIHA PAT Program samples are also available for purchase by any interested parties, see Section 2.1.13.

#### 2.1.1 Enrollment Forms and Fees


The PT programs are open to any participant that is interested. Such participants must complete the program-specific Enrollment form and Participation Agreement and pay the appropriate fees to participate in the selected PAT Program. A potential participant wishing to enroll in any of the AIHA PAT Programs must complete the appropriate Enrollment Form and the Participation Agreement. In addition to the program-specific Enrollment form, full payment of PAT Program fees, as specified on the most recent Fee Schedule, must be received by AIHA PAT Programs. PAT annual fees are non-refundable.

Once a participant is enrolled in an AIHA PAT Program, they receive a welcome email with the following: confirmation of enrollment, participant ID, data submission information, PT program schedule, program information about excused absences and enrollment change requests.

The Program Schedule and the Fee Schedule are available on the AIHA PAT Programs website at [www.aihapat.org](http://www.aihapat.org). The annual PT scheme has a set number of rounds and by enrolling a participant agrees to full annual participation according to the preset number of rounds per year, with the exception of the allowable excused rounds. A participant has the option to discontinue PT round participation by submitting a request in writing to AIHA PAT Programs. If a participant decides not to continue participation in a given PAT program but has received the latest samples, then the participant may return any unopened samples for a refund. *Please Note:* Organic solvents and diffusive sampler badges may not be returned once they are shipped to participants. This refund is based on the actual PT participation for the year. If a participant wishes to reinstate participation following the submission of this withdrawal notification within the year, the participant will be subject to a reinstatement fee according to the Fee Schedule. In the absence of prior approval, failure to submit data for two consecutive PT rounds may result in the removal of the participant from the PT program.

#### 2.1.2 Samples

Upon enrollment in an AIHA PAT Program, a participant shall receive the appropriate PAT samples for the next scheduled PAT round. The frequency and duration of each round is established for each PAT program and may be as few as two (2) rounds per year, or as many as four (4) rounds per year. The participant is responsible for notifying AIHA PAT Programs of any changes in participation status that may affect the receipt of PAT samples, such as a change in address or named recipient. A participant shall request changes to their participation in the AIHA PAT Programs in writing. Changes will be made once received and will take effect for a round if they are submitted by the

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round's enrollment deadline. Sample distribution dates are available in the PAT Program Schedule on AIHA PAT Programs website at [www.aihapat.org](http://www.aihapat.org). Proficiency testing samples for US participants are shipped via the United States Postal Service (USPS) and trackable carriers. International participant samples are shipped via trackable carriers. Samples are stored and distributed by the appropriate program subcontractor.

### 2.1.3 Sample Receipt

Upon receipt of the AIHA PAT samples, it is the responsibility of the participant to inspect the shipment for any damage, defects or anomalies, including the suitability of samples for analysis, and to ensure that the correct samples were received. If samples are damaged, the participant must notify AIHA PAT Programs within fifteen (15) days of the scheduled sample ship date to ensure the timely replacement of samples and submission of PAT data. Participants requesting special shipping for replacement samples will assume the cost of express courier handling.

If the PAT samples are not received by the participant in accordance with the predefined program schedule, then it is the responsibility of the participant to contact AIHA PAT Programs within fifteen (15) days of the scheduled sample shipping date to notify them of failure to receive the PAT samples. AIHA PAT Programs is not responsible for replacing samples not received by the participant, if notification occurs after this specified time frame.

Participants must submit contact information changes by the round enrollment deadline date to ensure that changes are received and applied in a timely manner. This will also ensure that a given round's samples are sent to the correct contact and location. Failure to submit changes by the enrollment deadline may result in undeliverable samples, sample replacement and additional shipping charges, or missed submission dates and failure of a round. A participant can notify AIHA PAT Programs for a replacement sample if samples are damaged or lost after receipt.


AIHA PAT Programs Policy requires that participants inspect test items upon receipt and report damaged samples that may result in potentially unsuitable test items within fifteen (15) days of the scheduled sample ship date. EMPAT Direct Exam utilizes digital images and as such this caveat does not apply.

If damaged test items are not reported within fifteen (15) days of the scheduled sample ship date, the participant forfeits their opportunity to receive replacement samples or other action by AIHA PAT Programs. For the EMPAT Culture program, participants are given up to fifteen (15) days to request replacement samples for damage or sample growth concerns.

### 2.1.4 PT Sample Analysis

AIHA PAT Programs are performance based and the programs do not specify the use of any particular analytical method when analyzing PAT samples, with the exception of NIOSH Method 7400 for asbestos and manmade fibers. Proficiency testing samples must be analyzed using the same analytical procedure used to test the majority of routine customer samples.

For those samples whose homogeneity, stability, or integrity are found to be in question upon analysis and which may result in potentially unsuitable test items, if the participant reports the potentially unsuitable test items at least seven (7) business days prior to the closing of the test round (result reporting) period, then AIHA PAT Programs contacts the appropriate subcontractor, if applicable. For the EMPAT Culture Program, participants may report potentially unsuitable test items up to fifteen (15) days after the samples ship date and are given the option to purchase a replacement sample given the caveat that if it is later determined that there was an issue with that specific challenge, participants will not be charged for the replacement cost.

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If potentially unsuitable test items are not reported by seven (7) business days prior to the closing of the test round (result reporting) period by the participant, the participant forfeits their opportunity to receive replacement samples or other remedial action by AIHA PAT Programs. Potentially unsuitable test items for the EMPAT Culture Program reported after the reporting time specified in 2.1.3 may result in insufficient time for re-shipping challenges to participants and provide participants with less time to process, analyze, and report.

Note: If 50% or greater of EMPAT Culture participants experience growth issues then the sample will be removed from scoring.

In order to maintain confidence in AIHA PAT Programs' competence, impartiality, judgment and operational integrity, PAT participants shall avoid involvement in any activities that would diminish this confidence. Such activities include, but are not limited to:

- 2.1.4.1 Submitting, as their own, results for proficiency samples that were analyzed by another laboratory
- 2.1.4.2 Discussing or sharing of proficiency sample or test information with other participants prior to the close of the round
- 2.1.4.3 Misrepresenting material information on applications or any written correspondence with the AIHA PAT Programs
- 2.1.4.4 Knowingly reporting fraudulent or erroneous data
- 2.1.4.5 Misrepresenting their participation in AIHA PAT programs

Any participants determined to have falsified results or to have colluded with other participants shall be reported to the PAT Board who will conduct an investigation of any complaint or reported violation of our policies and will take appropriate corrective actions including assigning a score of zero for the round in question and forfeiture of participation in the retest and the subsequent round. Repeat offences shall be reviewed by the PAT Board and may result in permanent expulsion of the organization and/or personnel from participation in all AIHA PAT Programs.


## 2.1.5 Submission of Data

Participants shall be responsible for the timely and proper submission of all PAT Programs sample results to the AIHA PAT Programs. The participant shall submit data using the Data Portal via the Programs website at [www.aihapat.org](http://www.aihapat.org). The data must be entered and submitted into the system by the specified deadline as indicated in the Program Schedule. The posted deadline is by 11:59:59 PM eastern time (ET) of the date stated. A PAT Data Reporting Form is provided with most PAT samples to provide guidance as participants record sample data. Using the form may help increase the accuracy of the participant's data submission (i.e. data in correct significant figures and proper units). PAT participants may submit their PAT data as many times as they wish prior to the closing of the round but the system will only retain the last data entry (determined by contaminant/sample number) as valid. If your organization has multiple personnel entering data, please ensure your completed confirmation page contains data for all required fields. After participant results are submitted the participant should print the submission confirmation page as their receipt and should review the submission confirmation page to ensure data was submitted correctly. Data submission appeals will only be considered if the participant presents a submission confirmation page along with the appeal.

Participants that experience any difficulty with the results submission process must contact program staff before the reporting deadline. If the participant experiences difficulties after office hours prior to the close of the round then the participant must send an email or leave a voicemail to avoid missing the reporting deadline. Data will not be accepted after the scheduled close of a PAT round without prior approval or communication.

## 2.1.6 Data Processing

### 2.1.6.1 Statistical Analysis of data

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AIHA PAT Programs use traditional statistical design and data analysis methods to identify the assigned value and evaluate participant results for quantitative tests. Statistical designs are developed to meet the objectives of the individual schemes, based on the analyte class, the nature and range of the data (quantitative or qualitative), statistical assumptions, the nature of errors, and the expected number of results. The coordinator reviews each round data with regard to results distribution and comparison of acceptance intervals. For specific PAT Programs data evaluation information refer to the individual scheme plans.

#### **2.1.6.2 Determination of Proficiency**

A participant is rated for PAT proficiency based on the evaluation of consecutive rounds. For detailed information visit [www.aihapat.org](http://www.aihapat.org).

Any non-participation or non-reporting of PAT data will result in unacceptable results unless the participant has obtained pre-approval for non-participation from AIHA PAT Programs, as described in Section 2.1.10. Errors that occur during data submission may cause in an unacceptable result rating. These errors may include: gross errors in data submission; invalid or incorrect data submission; forgetting to click the 'submit' button to submit data; or incorrectly spelling a sample identification. An unacceptable result is defined as a result outside of the established acceptance limits.

#### **2.1.7 PAT Board Data Review**

The PAT Board receives all summary round data for their technical review and approval prior to scores being finalized for a round and results reports being distributed to the PAT Programs participants. These summary reports include general performance round data. Additionally, the PAT Board also reviews program data comparing results obtained by different test or measurement methods as necessary.


#### **2.1.8 PT Data Reports**

Assigned values are disclosed at the time that PAT reports are made available to all participants. There is no early disclosure of assigned values. The AIHA PAT Programs' subcontractors are contractually obligated to protect information associated with assigned values. Proficiency testing round performance is valid from the date of issue of the most recent results report to the date when the next round's results become available. The results pertain only to the named participant at the location listed on the report.

The AIHA PAT Programs makes the PAT reports available to each participant within thirty (30) business days after the close of the PAT round. It is the responsibility of the participant to contact AIHA PAT Programs if any errors are found on their PAT report. Please refer to the Program Schedule available at [www.aihapat.org](http://www.aihapat.org) for specific program timelines. AIHA PAT Programs makes every effort to ensure that individual participant results are kept confidential and are not made public. Enrollment in any AIHA PAT Programs' scheme requires participant agreement that the results report and overall proficiency shall be released to those entities requiring this information for accreditation or regulatory purposes. Participant PAT reports may not be reproduced or distributed unless copied in its entirety.

#### **2.1.9 Retest Samples**

If a participant becomes non-proficient and there is a retest sample available, then the participant may choose to purchase the retest sample to attempt to regain a proficient status prior to the next regular round. Retest orders must be received by the preset order deadline to be enrolled in the retest round. Please note that the quantities are limited and are available on a first-come first-served basis. The retest results will replace the original results submitted by the participant and proficiency will be reevaluated based upon the retest results. A Retest Sample Order Form is available on the AIHA PAT Programs website at [www.aihapat.org](http://www.aihapat.org).

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### 2.1.10 Temporary Non-Participation in PAT Program

A participant may temporarily stop participation in an AIHA PAT Program if their laboratory is undergoing renovations, if equipment is being serviced or new equipment is on order, or if they have a short-term personnel issue that prevents them from completing the required analyses. The participant must obtain permission from AIHA PAT Programs, prior to the round closure date, to be excused from the PAT round(s) in order for the participant's proficiency status to be unaffected. A participant that wishes to be exempted from participation in an upcoming round must send an email to the AIHA PAT Programs prior to the close of the round. An email response approving the exemption will be sent to the participant stating that the participant has been excused for the round. An exemption is valid for only one PAT round unless a participant specifically requests to be excused for two consecutive rounds. Excused non-participation shall not exceed two consecutive PAT rounds. In the absence of prior approval, failure to submit will result in unacceptable results that will, ultimately, impact the participant's proficiency status. The application or modification of the policy is at the discretion of AIHA PAT Programs.

### 2.1.11 Changes in PT Program Participation

A participant must submit all enrollment and contact changes to AIHA PAT Programs in writing by the enrollment deadline for those changes to take effect during the respective PAT round. A participant must include their participant ID number on all communications with AIHA PAT Programs.

### 2.1.12 Appeals, Complaints, and Feedback


Participants, customers or other parties that are or may be adversely or materially affected by a policy or procedural action shall have the right to appeal. Consideration of appeals shall be fair and unbiased and shall fully address the concerns expressed. The participant must file a written appeal showing proof of adverse effect to AIHA PAT Programs. Appeals of scoring decisions must be made within twenty (20) business days of the release of the results report; all other appeals may be submitted at any time. The AIHA PAT Programs will submit participant appeals to the PAT Board. The PAT Board makes recommendations on appeals and complaints to the Manager and Director who possess sole authority to render a final decision in any matter appealed in accordance with appeal procedures. AIHA PAT Programs will communicate final decisions to the appellant and the PAT Board.

Participants, customers or other parties have the opportunity to file a complaint or provide feedback to AIHA PAT Programs, and have the feedback responded to and/or complaint resolved in a timely manner. Feedback is used to improve the programs and the associated services to the customer. AIHA PAT Programs cooperates with stakeholders in clarifying requests and in monitoring the Programs' performance. All information related to complaints and/or feedback is maintained under AIHA PAT Programs confidentiality policy and procedures.

AIHA PAT Programs solicits feedback from participants, customers, and other stakeholder parties at periodic intervals. Stakeholders' interests are considered in developing AIHA PAT Programs' Policies, procedures, and PT schemes.

### 2.1.13 Practice Rounds and Stock Samples for Purchase

A participant or any interested party wishing to develop new analytical capabilities may purchase stock samples (samples from previous rounds) for practice, if available. The data from analysis of these samples can not be used to document proficiency within the PAT Programs. Practice rounds may also be used to evaluate laboratory quality control with respect to new analyst training and method validation procedures. A certificate of analysis is provided with the samples to permit internal evaluation of performance. A Stock Sample Order Form is available at [www.aihapat.org](http://www.aihapat.org).

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#### 2.1.14 Advertising

A participant may use their participant number to indicate participation in AIHA PAT Programs, as long as “accreditation” or “certification” is not implied. The only approved language is: “\_\_\_\_\_ (participant name) participates in the AIHA \_\_\_\_Proficiency Analytical Testing Program, Participant Number \_\_\_\_\_”. (Blanks are to be filled in with applicable terms.)

Any other use of these terms or any variation in terminology requires prior AIHA PAT Programs approval. The AIHA PAT Programs are not an accreditation program or a certification program. When advertising AIHA PAT Programs’ logo, the words ‘accreditation’ or ‘certification’, or variations thereof shall not be used.

#### 2.1.15 Suspension and Removal

Suspension is the temporary removal of a participant from the proficiency testing programs when they fail to conform to specific program requirements. Suspension and/or removal may occur at any time. Conditions of suspension and/or removal include, but are not limited to:

- 2.1.15.1 Submitting, as their own, results for proficiency samples that were analyzed or verified by another participant or a third party.
- 2.1.15.2 Failure to submit data for two consecutive PT rounds without prior approval from AIHA PAT Programs
- 2.1.15.3 Discussing or sharing of proficiency sample or test information with other participants prior to the close of the round
- 2.1.15.4 Misrepresenting material information on applications or any correspondence with AIHA PAT Programs
- 2.1.15.5 Knowingly reporting fraudulent results
- 2.1.15.6 Misrepresenting participation in AIHA PAT programs
- 2.1.15.7 Non-payment of program participation fees
- 2.1.15.8 False advertising



## APPENDIX

### TERMS, ACRONYMS AND DEFINITIONS

The following abbreviations and terms will be helpful in interpreting this policies document.

Term and/or Acronym	Definition
<b>Accreditation</b>	A formal recognition that a facility meets an Accrediting Body's Policy Requirements to carry out specific tasks or specific types of tests. See also " <i>Certification</i> ."
<b>Analysis</b>	The qualitative or quantitative determination of a property or analyte in a substance or material.
<b>Analyte Class</b>	A group of proficiency testing samples of similar analytes and matrix. Generally the smallest subset of proficiency testing samples within a proficiency testing scheme that may be ordered by participants. (e.g. metals on membrane filters, organic solvents on sorbent tubes, lead in paint)
<b>Assigned Value</b>	Value attributed to a particular property of a proficiency test item (ISO/IEC 17043) (AIHA PAT NOTE: AIHA PAT Programs generally use the adjusted mean of reference participant results as the assigned value.)
<b>Beryllium Proficiency Analytical Testing Program (BePAT)</b>	Program specifically recommended for laboratories analyzing samples for the Department of Energy in accordance with the Chronic Beryllium Disease Prevention Program as specified in 10 CFR Part 850.24, Section (f) Periodic Exposure Monitoring, Analysis.
<b>Bulk Asbestos Proficiency Analytical Testing Program (BAPAT)</b>	Quarterly program that serves as an external quality assurance program for participants analyzing bulk building materials by polarized light microscopy (PLM).
<b>Certification</b>	Procedure by which a third party gives written assurance that the competence of a person, organization, or other entity to perform a function or service conforms to specified requirements. See " <i>Accreditation</i> ."
<b>Coordinator</b>	One or more individuals with responsibility for organizing and managing all of the activities involved in the operation of a proficiency testing scheme (ISO/IEC 17043)
<b>Corrective Action (CA)</b>	All activities taken, whether unsuccessful or not, to eliminate the cause(s) of an existing nonconformity or deficiency in order to prevent recurrence.
<b>Customer</b>	Organization or individual for which a proficiency testing scheme is provided through a contractual arrangement (ISO/IEC 17043)
<b>Dust Wipes</b>	A sample collected by wiping a representative surface of known area with an acceptable wipe material.
<b>Environmental Lead Proficiency Analytical Testing (ELPAT)</b>	Quarterly lead proficiency testing samples of various matrices analyzed by participants as a way to determine proficiency.
<b>Environmental Microbiology</b>	The area of microbiology that focuses on the biology, physiology, ecology and sampling and analysis of microorganisms inhabiting or affecting air, water, soil and other natural or man-made substances and/or systems in a variety of work environments, and that may contribute to adverse health effects.

Term and/or Acronym	Definition
<b>Environmental Microbiology Proficiency Analytical Testing (EMPAT)</b>	Environmental microbiology samples analyzed by all participants.
<b>Industrial Hygiene Proficiency Analytical Testing (IHPAT)</b>	Quarterly industrial hygiene samples of various analytes and matrices analyzed by program participants.
<b>Interlaboratory Comparison</b>	Organization, performance and evaluation of measurements or tests on the same or similar items by two or more laboratories in accordance with predetermined conditions (ISO/IEC 17043)
<b>Matrix</b>	The component or substrate (e.g., soil, air or charcoal tube) that contains the analyte of interest.
<b>Method</b>	An orderly arrangement of steps to accomplish sample analysis.
<b>Outlier</b>	Observation in a set of data that appears to be inconsistent with the remainder of that set NOTE An outlier can originate from a different population or be the result of an incorrect recording or other gross error. (ISO/IEC 17043)
<b>Participant</b>	A laboratory, organization, or individual that receives proficiency test items and submits results for review by the proficiency testing provider (ISO/IEC 17043).
<b>Policy</b>	An organization's written statement of commitment to implement a management program element.
<b>Procedure</b>	A written set of instructions that describe how to implement a policy requirement, or how to carry out a specific task.
<b>Proficiency Testing (PT)</b>	Evaluation of participant performance against pre-established criteria by means of interlaboratory comparisons (ISO/IEC 17043)
<b>Proficiency Test Item</b>	Sample, product, artifact, reference material, piece of equipment, measurement standard, data set or other information used for proficiency testing (ISO/IEC 17043)
<b>Proficiency Testing Provider</b>	Organization which takes responsibility for all tasks in the development and operation of a proficiency testing scheme (ISO/IEC 17043)
<b>Proficiency Testing Round</b>	Single complete sequence of distribution of proficiency test items, and the evaluation and reporting of results to the participants (ISO/IEC 17043)
<b>Proficiency Testing Scheme</b>	Proficiency testing designed and operated in one or more rounds for a specified area of testing (ISO/IEC 17043)
<b>Reference Material</b>	A material of sufficiently homogenous composition that has a physical (e.g., viscosity, particle size) or chemical (e.g., pH, constituent concentration) measured property determined to a stated uncertainty.
<b>Subcontractor</b>	Organization or individual engaged by the proficiency testing provider to perform activities that affect the quality of a proficiency testing scheme NOTE The term "subcontractor" includes what many proficiency testing providers call collaborators. (ISO/IEC 17043)