1 PURPOSE, SCOPE AND OBJECTIVE

This quality system document outlines the Industrial Hygiene Proficiency Analytical Testing (IHPAT) Program scheme and how this scheme satisfies relevant requirements of ISO/IEC 17043.

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2 REVISION HISTORY

Date	Rev.	Modification(s)
07/23/2012	R0	Original Issue
9/27/2012	R1	5.2q (Requirements from clause 4.4.1.3 of ISO/IEC 17043) - Revised 2nd sentence; 9.1 ARMATURE Data Processing Procedure; revised 4th bullet to "the standard deviation of the reference group results" instead of "the standard deviation of the assigned value."; 3.1 revised document title to "AIHA PAT Programs Participation Policies"; 3.2 ARMATURE Data Processing Procedure; 5.2n added 'have'
10/16/2013	R2	5.2q updated to reflect the uncertainty formula in actual use by PAT Programs; 5.2p updated to include outlier test; 9.1 updated to include new definition of Reference Group and criteria and procedure for identification of outliers.

3 RELATED DOCUMENTATION

3.1. AIHA PAT Programs Participation Policies

3.2. ARMATURE Data Processing Procedure

3.3. Purchasing Services and Supplies

3.4. Review of Request Tenders and Contracts

3.5. ISO/IEC 17043:2010 Conformity assessment — General requirements for proficiency testing

4 DEFINITIONS

The following definitions from ISO/IEC 17043:2010 apply:

4.1 assigned value
value attributed to a particular property of a proficiency test item

AIHA PAT Programs NOTE: The IHPAT Program scheme uses the adjusted mean of reference participant results as the assigned value

4.2 coordinator
one or more individuals with responsibility for organizing and managing all of the activities involved in the operation of a proficiency testing scheme

4.3 customer
organization or individual for which a proficiency testing scheme is provided through a contractual arrangement

4.4 interlaboratory comparison
organization, performance and evaluation of measurements or tests on the same or similar items by two or more laboratories in accordance with predetermined conditions

4.5 outlier
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.

4.6 participant
laboratory, organization or individual that receives proficiency test items and submits results for review by the proficiency testing provider
NOTE In some cases, the participant can be an inspection body.

4.7 proficiency testing
evaluation of participant performance against pre-established criteria by means of interlaboratory comparisons

NOTE 1 For the purposes of this International Standard, the term “proficiency testing” is taken in its widest sense and includes, but is not limited to:

a) quantitative scheme — where the objective is to quantify one or more measurands of the proficiency test item;

b) qualitative scheme — where the objective is to identify or describe one or more characteristics of the proficiency test item;

c) sequential scheme — where one or more proficiency test items are distributed sequentially for testing or measurement and returned to the proficiency testing provider at intervals;

d) simultaneous scheme — where proficiency test items are distributed for concurrent testing or measurement within a defined time period;

e) single occasion exercise — where proficiency test items are provided on a single occasion;

f) continuous scheme — where proficiency test items are provided at regular intervals;

g) sampling — where samples are taken for subsequent analysis; and

h) data transformation and interpretation — where sets of data or other information are furnished and the information is processed to provide an interpretation (or other outcome).

4.8 proficiency test item
sample, product, artefact, reference material, piece of equipment, measurement standard, data set or other information used for proficiency testing

4.9 proficiency testing provider
organization which takes responsibility for all tasks in the development and operation of a proficiency testing scheme

4.10 proficiency testing round
single complete sequence of distribution of proficiency test items, and the evaluation and reporting of results to the participants

4.11 proficiency testing scheme
proficiency testing designed and operated in one or more rounds for a specified area of testing, measurement, calibration or inspection

NOTE A proficiency testing scheme might cover a particular type of test, calibration, inspection or a number of tests, calibrations or inspections on proficiency test items.

4.12 robust statistical method
statistical method insensitive to small departures from underlying assumptions surrounding an underlying probabilistic model

4.13 standard deviation for proficiency assessment
measure of dispersion used in the evaluation of results of proficiency testing, based on the available information

NOTE 1 The standard deviation applies only to ratio and differential scale results.

NOTE 2 Not all proficiency testing schemes evaluate proficiency based on the dispersion of results.

4.14 subcontractor
organization or individual engaged by the proficiency testing provider to perform activities specified in this International Standard and that affect the quality of a proficiency testing scheme

NOTE The term “subcontractor” includes what many proficiency testing providers call collaborators.

4.15 metrological traceability
property of a measurement result whereby the result can be related to a reference through a documented unbroken chain of calibrations, each contributing to the measurement uncertainty

NOTE 1 For this definition, a “reference” can be a definition of a measurement unit through its practical realization, or a measurement procedure including the measurement unit for a non-ordinal quantity, or a measurement standard.

NOTE 2 Metrological traceability requires an established calibration hierarchy.

NOTE 3 Specification of the reference must include the time at which this reference was used in establishing the calibration hierarchy, along with any other relevant metrological information about the reference, such as when the first
calibration in the calibration hierarchy was performed.

NOTE 4 For measurements with more than one input quantity in the measurement model, each of the input quantity values should itself be metrologically traceable and the calibration hierarchy involved may form a branched structure or a network. The effort involved in establishing metrological traceability for each input quantity value should be commensurate
with its relative contribution to the measurement result.

NOTE 5 Metrological traceability of a measurement result does not ensure that the measurement uncertainty is adequate for a given purpose or that there is an absence of mistakes.

NOTE 6 A comparison between two measurement standards may be viewed as a calibration if the comparison is used to check and, if necessary, correct the quantity value and measurement uncertainty attributed to one of the measurement standards.

NOTE 7 The International Laboratory Accreditation Cooperation (ILAC) considers the elements for confirming metrological traceability to be an unbroken metrological traceability chain to an international measurement standard or a national measurement standard, a documented measurement uncertainty, a documented measurement procedure, accredited technical competence, metrological traceability to the SI, and calibration intervals (see ILAC P-10:2002).

NOTE 8 The abbreviated term “traceability” is sometimes used to mean “metrological traceability” as well as other concepts, such as “sample traceability” or “document traceability” or “instrument traceability” or “material traceability”, where the history (“trace”) of an item is meant. Therefore, the full term of “metrological traceability” is preferred if there is any risk of confusion.
[ISO/IEC Guide 99:2007, definition 2.41]

4.16 measurement uncertainty

uncertainty of measurement
uncertainty
non-negative parameter characterizing the dispersion of the quantity values being attributed to a measurand, based on the information used

NOTE 1 Measurement uncertainty includes components arising from systematic effects, such as components associated with corrections and the assigned quantity values of measurement standards, as well as the definitional uncertainty. Sometimes estimated systematic effects are not corrected for but, instead, associated measurement uncertainty components are incorporated.

NOTE 2 The parameter may be, for example, a standard deviation called standard measurement uncertainty (or a specified multiple of it), or the half-width of an interval, having a stated coverage probability.

NOTE 3 Measurement uncertainty comprises, in general, many components. Some of these may be evaluated by Type A evaluation of measurement uncertainty from the statistical distribution of the quantity values from series of measurements and can be characterized by standard deviations. The other components, which may be evaluated by Type B evaluation of measurement uncertainty, can also be characterized by standard deviations, evaluated from probability density functions based on experience or other information.

NOTE 4 In general, for a given set of information, it is understood that the measurement uncertainty is associated with a stated quantity value attributed to the measurand. A modification of this value results in a modification of the associated uncertainty.

5 INDUSTRIAL HYGIENE PROFICIENCY ANALYTICAL TESTING PT SCHEME

5.1 Objectives of the PT Scheme

The objective of this PT scheme is to allow participants to demonstrate their ability to correctly analyze representative industrial hygiene samples. The IHPAT Program is designed to complement, not replace, a participant's internal quality control (QC) program.

5.2 PT Plan

The following table provides the general scheme information that is followed for the IHPAT Program and references the relevant requirements of ISO/IEC 17043:

Requirement from clause 4.4.1.3 of ISO/IEC 17043	**AIHA IHPAT Program's fulfillment of requirement**
a) Proficiency Testing Provider	AIHA Proficiency Analytical Testing Programs. 3141 Fairview Park Drive, Suite 777, Falls Church, VA 22042. Email: info.PATLLC@aiha.org Phone: (703) 846 0757.

Requirement from clause 4.4.1.3 of ISO/IEC 17043	AIHA IHPAT Program's fulfillment of requirement
b) Coordinator	The Manager, AIHA PAT Programs, functions as the coordinator of the IHPAT Program. The Director, AIHA PAT Programs, is responsible for the planning and design of the Industrial Hygiene Proficiency Analytical Testing (IHPAT) Program scheme, with input from the Manager, AIHA PAT Programs, and AIHA PAT Programs Board. The list of PAT Programs Board members is available on the AIHA PAT Programs Website at www.aihapat.org.
c) Subcontracted Activities	The IHPAT Program subcontracts the generation, characterization, packaging and shipping of all IHPAT proficiency testing samples to SRI International located at 333 Ravenswood Court, Menlo Park, CA. IHPAT Program data storage is subcontracted to ARMATURE located at 45240 Business Court, Suite 400, Dulles, VA 20166.
d) Criteria for Participation	The IHPAT Program is open to all interested participants. Participants that would like to enroll in the program must submit the appropriate fees and complete an enrollment form which is available on the PAT Programs Website http://www.aihapat.org/ProficiencyTestingPrograms/ihpat/Pages/default.aspx.
e) Participants	The IHPAT Program has approximately nine hundred (900) total participants from private and government laboratories, education institutions, and other interested parties seeking to demonstrate their proficiency and/or make use of third-party quality control provided by the proficiency testing scheme. The typical participation levels range between 50 and 800 participants per analyte group.
f) Measurands and g) Concentration ranges	Only analytes and matrices that are commonly encountered by industrial hygiene or environmental testing laboratories are included in the IHPAT Program. The following analyte groups are offered: Silica The free silica (quartz) sample set includes four 5.0 µm 37mm PVC (polyvinyl chloride) filter samples that contain differing silica concentrations and include a background matrix, on a rotating basis of coal mine dust, talc, calcite, or a combination of talc and coal mine dust. The set also includes a blank 5.0 µm 37mm PVC filter. Milligrams (mg) of quartz per filter are reported by participants. The free silica (quartz) sample concentration range is generally between 0.05 mg – 0.225 mg. Metals The metals sample set includes four 0.8 µm 37mm MCE (mixed cellulose ester) filters

Requirement from clause 4.4.1.3 of ISO/IEC 17043	AIHA IHPAT Program's fulfillment of requirement
	that contain three metals (lead, nickel, manganese, cadmium, or chromium) which are rotated on the samples that are distributed each round. The set also includes a blank 0.8 µm 37mm MCE filter. Milligrams (mg) of each metal per filter are reported by participants. The range for manganese, lead, nickel and chromium is generally between 0.02 mg – 0.2 mg; cadmium range is generally between 0.002 mg – 0.04 mg. Organic Solvents The sorbent tube sample set includes four coconut charcoal sealed sorbent tubes that contain two or three organic solvents that are also rotated each round and include benzene, ethyl acetate, n-butyl acetate, 2-propanol, chloroform, 1,2-dichloroethane, 1,1,1-trichloroethane, o-xylene, toluene, or trichlorethylene. Methanol on silica gel sorbent tubes is also provided periodically as part of the rotation. The organic solvent set also includes four additional blank sorbents tubes for desorption efficiency studies (a total of five blank tubes). Milligrams (mg) of organic solvents per sorbent tube are reported by participants. The range for the organic solvents is generally between 0.03 mg – 2 mg; the chloroform range is generally between 0.125 mg – 2 mg. Diffusive Samplers The diffusive sampler set includes two 3M, Assay Technology, or SKC diffusive samplers containing three analytes (benzene, toluene and o-xylene). The concentration range is within a range allowable when preparing samples using diffusive samplers from at least three different manufacturers. Blank diffusive samplers are not provided. Parts per million (ppm) by volume of organic solvents per diffusive sampler are reported by participants using provided sample exposure information. The concentration range for organic solvents on diffusive sampler badges is generally between 8ppm - 32ppm for benzene and o-xylene and between 8ppm - 37ppm for toluene. Asbestos The fiber sample set includes three concentration levels of asbestos fibers and one man made fiber sample on 0.8 µm 25mm MCE filters in each fiber sample kit. The set also includes a blank 0.8 µm 37mm MCE filter. Fibers per square mm (f/mm^2) of filter surface area are reported by participants. The asbestos concentration range for samples is generally between 100-800 fibers/sq mm of filter surface. The man-made fibers range is generally between 60-125 fibers/sq mm of filter surface.

Requirement from clause 4.4.1.3 of ISO/IEC 17043	AIHA IHPAT Program's fulfillment of requirement
h) Potential major sources of errors	The potential major sources of error include: sample homogeneity; sample stability; sample handling and shipping; differences between methods used by participants; differences in how participants apply methods, and differences in participant competence.
i) Sample production, quality control, storage, and distribution	All IHPAT samples are produced, characterized, stored and distributed under contract to the AIHA PAT Programs. Requirements are detailed in the IHPAT Program Request for Proposals and the IHPAT Program Contract. These requirements are addressed in subcontractor's sample production, characterization, storage and shipping procedures.
j) Procedures for preventing collusion and falsification of results	All participants must agree to Terms and Conditions before submitting results on the AIHA PAT Data Portal. Participants indicate that "By submitting these PAT data we verify that the analysis of the AIHA Proficiency Analytical Testing Programs' samples for this round were conducted solely by our laboratory and we are reporting only our results from that analysis." Participants also confirm that their PAT samples were not sent to another laboratory for analysis or result verification, nor did they knowingly accept any samples for analysis that they believed to be PAT samples, as this would violate the AIHA PAT Programs Participation Policies. New participants sign a participation agreement, with terms and conditions that require participants to comply with PAT Programs Participation Policies, upon enrolling in the program before they can receive samples.
k) Information provided to participants	Upon enrollment, participants receive a welcome letter that provides a unique identification number and their password. Included in the letter is a description of the sample package and the contents that will be provided to the participant. Participants are also given instructions on how to submit results and general program information. Instructions included with each set of proficiency testing samples are provided by the subcontractor. The PAT Program Schedule which includes the various stages of the proficiency testing scheme, the frequency and dates upon which proficiency test items are to be distributed to participants, and the deadlines for the return of results by participants is available for participants on the AIHA PAT website (http://www.aihapat.org/documents-policies-fees/Documents/AAT_PT_Schedule.pdf). Participants shall be notified of changes to the large-scale operations and/or design of this scheme within twenty (20) business days.

Requirement from clause 4.4.1.3 of ISO/IEC 17043	AIHA IHPAT Program's fulfillment of requirement
l) Dates for shipments and reporting deadlines	All samples except diffusive samplers are shipped quarterly; diffusive samplers are shipped semi-annually. Dates for sample shipment, deadlines for changes to IHPAT Program participation, and deadlines for result reporting are posted on the AIHA PAT Programs website (http://www.aihapat.org/documents-policies-fees/Documents/AAT_PT_Schedule.pdf).
m) Methods	The AIHA PAT Programs does not specify the use of any particular analytical method when analyzing IHPAT samples, with the exception of NIOSH 7400 for fiber analyses. Participants are required to treat proficiency test items in the same manner as the majority of routinely tested samples.
n) Homogeneity and stability	The subcontractor characterizes the test samples by analyzing 10 randomly selected samples from each concentration level and analyte for each analyte group to meet AIHA IHPAT Programs homogeneity requirements. If more than one batch is generated to produce the quantities required, 10 randomly selected samples from each sub batch are analyzed, with the results statistically compared to meet AIHA IHPAT Programs specifications for homogeneity. Stability testing is conducted by evaluating retained IHPAT samples that have been analyzed over many years for every analyte category to determine at what point samples have become unreliable by falling out of the acceptable quantification limits and/or the sample media has become unstable, i.e. metals samples can become brittle after ten years. Samples must be stable for the current proficiency testing round and any future retest rounds. All samples must exhibit stability for a minimum period of three (3) years.
o) Participant reporting	The participant submits data using the PAT Data Portal on the AIHA PAT Programs website at www.aihapat.org. Refer to section 8 of this scheme for more details.
p) Statistical analysis	The IHPAT Program is a consensus-based PT program. The assigned value is the arithmetic mean of reference group results after blunders such as wrong units have been accounted for by Winsorizing data and outliers have been accounted for by an outlier test. Participant performance is determined by use of performance limits. Refer to Section 9 of this scheme for more detail.
q) Metrological traceability and uncertainty of the assigned	The IHPAT PT scheme is an evaluation of participant performance as it compares to the reference group. As such, the assigned values are considered traceable to a reference group. The uncertainty of the assigned value is determined as the uncertainty of the mean reference group value and is calculated as the standard deviation of the reference group data divided by the square root of the number of participants in the reference

Requirement from clause 4.4.1.3 of ISO/IEC 17043	AIHA IHPAT Program's fulfillment of requirement
value	group.
r) Evaluation of participant performance	Participant performance is determined by use of performance limits based upon the reference group's results. See Section 9 for details of the approach. Contact the program coordinator for additional information, as needed.
s) Reporting	IHPAT Program does not make available interim reports. Final program reports are made available to participants on the AIHA PAT Programs website following the PAT Program Schedule (http://www.aihapat.org/documents-policies-fees/Documents/AAT_PT_Schedule.pdf) and are available for participants to review and download after signing into the secure PAT Data Portal with their login and password. Refer to section 10 of this scheme for more detailed information.
t) Public availability of proficiency testing information	AIHA PAT Programs makes every effort to ensure that participants' results and proficiency status are not made public. If an interested party requires the proficiency testing results to be directly provided by the proficiency testing provider for accreditation and contract purposes, the participants are made aware of the arrangement in advance of participation and consent is sought prior to the release of records for current participants.
u) Lost or damaged samples	Instructions are provided to participants along with the IHPAT samples, on the AIHA PAT Programs website (http://www.aihapat.org/ProficiencyTestingPrograms/ihpat/Pages/default.aspx), and in the AIHA PAT Programs Participation Policies. Replacement samples will be provided as per section 2.1.3 of AIHA PAT Programs Participation Policies when notified by participants of lost or damaged samples.

6 STUDY FREQUENCY AND COMPOSITION

There are four IHPAT proficiency testing rounds in one calendar year. Once enrolled in the program, a participant will receive sample kits in January, April, July and October. Diffusive samplers are sent biannually in January and July. Important dates for each study (i.e., shipping date, reporting deadline and deadline for changes to PT enrollment)

are posted on the AIHA PAT Programs website at (http://www.aihapat.org/documents-policies-fees/Documents/AAT_PT_Schedule.pdf)

7 SAMPLE CHARACTERISTICS

7.1 PT samples used in the IHPAT program are prepared on representative sampling media and whenever possible, are designed to mimic typical matrices experienced by participants. The concentration ranges for each analyte are established based on analytical capabilities, typical sample concentrations and regulatory limits (where available).

7.2 Each production lot of samples is characterized for homogeneity and stability per AIHA PAT Programs specifications and approved Subcontractor procedures.

8 PARTICIPANT REPORTING

8.1 On the Round start date the Data Management System is set to open by unlocking the library of data collection forms to allow PAT participants to begin entering their results. The data must be entered into the system by the specified deadline as indicated in the PAT Program Schedule on www.aihapat.org. The participant is responsible for the timely and proper submission of all PAT sample results to the AIHA PAT Programs, LLC.

8.2 The participant submits data using the PAT Data Portal on the AIHA PAT Programs website at www.aihapat.org. An IHPAT Program Data Reporting Form is provided to the participant as part of the sample kit to provide guidance as participants record sample data. IHPAT Program participants may submit their data as many times as they wish until the round closing date; however the system will only retain the last data entry (determined by analyte /sample number) as valid. Unless otherwise specified, the IHPAT program uses four decimal places when accepting and reporting results for all analytes except fibers and cadmium. Cadmium results are reported to five decimal places and fibers are reported to the nearest whole number.

9 SCORING SYSTEM

9.1 The IHPAT scoring system is an interlaboratory comparison against peers. The IHPAT program data are analyzed using the National Institute for Occupational Safety and Health (NIOSH) Proficiency Analytical Testing Statistical Protocol, Esche, et al., 1994. This approach has generally been used since the IHPAT Program was started (1972) and has been demonstrated to work effectively. Specific procedures are detailed

in ARMATURE Data Processing Procedure. IHPAT data analysis is performed according to the steps summarized below:

- Both the assigned values and acceptance limits are based on consensus of the reference group. The reference group is comprised of participants that are ISO/IEC 17025:2005 accredited by an ILAC MRA Signatory for these particular measurements. Participants are included as part of the reference group for an IHPAT analyte group (e.g. metals, Silica, Asbestos, and Organic Solvents), if their accreditation is tied to their participation in that particular IHPAT analyte group and they have no unacceptable results for that analyte group in the previous two IHPAT proficiency testing rounds.

- Reference laboratories are determined for each proficiency testing round data set. The IHPAT data of the reference laboratories are Winsorized to account for blunders, such as typos, wrong units, etc. by replacing them with the next highest or next smallest value as appropriate, thus treating extreme observations in the results set. Winsorization involves the ranking of reference group data for each IHPAT analyte. Those results in the top 5% are replaced by the next highest result remaining in the set and those results in the bottom 5% are replaced by the next lowest result remaining in the set. Unlike other approaches, the extreme values are not eliminated, but are adjusted. Additionally, an outlier test is used to identify those reference group values that are beyond the reasonable upper boundary and the reasonable lower boundary during PAT round data analysis. Outliers are identified by evaluating the reference group dataset for each of the four samples of each analyte to determine the Maximum, 75th Percentile(Q3), Median(Q2), 25th Percentile(Q1) and Minimum. The reasonable lower boundary(RLB) = Q1-1.5(Q3-Q1); reasonable upper boundary (RUB) = Q3+1.5(Q3-Q1) are calculated for each dataset. The RLB and RUB replace the minimum and maximum values for each dataset respectively. Any values below the RLB or above the RUB are identified as potential outliers. The values beyond the RLB and RUB are not eliminated, but are instead replaced with the RLB and RUB for purposes of calculating the robust mean and Standard Deviation (Note: Even though the values beyond the RLB and RUB are replaced the actual result that was submitted would be evaluated for the round).

- Assigned value (reference group mean), standard deviation, and relative standard deviation are calculated from the set of reference group data. Upper and lower performance limits are calculated from reference group data to determine participant proficiency per round. The upper performance limit is calculated as the assigned value (reference group mean) plus three times the

reference group standard deviation. The lower performance limit is calculated as the assigned value (reference group mean) minus three times the reference group standard deviation. The reference group standard deviation is used but is limited to no less than 4% relative standard deviation or no greater than 20% relative standard deviation. Performance limits for diffusive samplers use the reference group mean as the assigned value with a fixed relative standard deviation of 6%.

- Due to the non-symmetric distribution of asbestos, the data management system transforms the value of all asbestos results by taking their square root after Winsorization.
- z-Scores are determined and are provided to participants for reporting purposes only. The z-Score is calculated as the participant sample result minus the assigned value divided by the standard deviation of the reference group results. The z-Scores help participants assess their performance in relation to other participants and are standardized performance scores that can be used to track performance across proficiency testing rounds.
- Proficiency testing round performance is determined after performance limits have been successfully calculated and all reference transformations are complete. IHPAT participant results are rated acceptable or unacceptable for each unique analyte sample number. Each unacceptable result is assigned to the analyte group (e.g. Metals, Silica, Asbestos, and Organic Solvents) to which the sample belongs. An unreported result is classified as unacceptable unless the AIHA PAT Programs has pre-approved nonparticipation. A passing score is 75% or more acceptable results for an analyte group.
- Performance limits are the sole consideration in determining round proficiency. Although z-Scores are reported to participants for reference, the performance limits are the only mechanism used to rate participant results.

9.2 A participant is rated proficient for the applicable IHPAT analyte group if the participant has a passing score for the applicable IHPAT analyte group in two (2) of the last three (3) consecutive PT rounds. A participant is rated non-proficient for the applicable PT analyte group if the participant has failing scores for the associated PT analyte group in two (2) of the last three (3) consecutive PT rounds.

9.3 This scheme was developed and continues to be modified, as required, through the input of participants, accreditation bodies, and regulators and through incorporation of relevant international standards and recommended practices.

a) With the exception of fiber data, the distribution of reported data approximates a normal distribution with no significant and recurring skewing or bi-modality;

b) Once transformed, the distribution of reported fiber data approximates a normal distribution with no significant and recurring skewing or bi-modality.

c) For any analyte, average results are similar, regardless of method used. When this is observed not to be the case, biased methods may be excluded from participation;

d) PT round data are reviewed and evaluated prior to reporting to participants for unusual distribution of results or unusual standard deviations of assigned values.

10 PROFICIENCY TESTING REPORTS

10.1 Final proficiency testing reports containing the confidential results of the individual participant as well as general overall summary results for the participant group are provided to participants within two weeks of the deadline for submission of results. Preliminary reports are not provided to participants.

10.2 Proficiency reports are provided via the secure PAT Data Portal and participants access their reports using their login information. Each participant receives an e-mail notification once the results are available on the PAT Data Portal.

10.3 The AIHA PAT Programs sends IHPAT results, on a quarterly basis, to the AIHA-LAP, LLC for its accredited laboratories and to OSHA and the Navy for those participants in applicable approval programs.

11 RETEST ROUNDS

Participants have the option to attempt to improve their most current IHPAT results prior to the next round of testing. Unacceptable performance may be improved by correctly analyzing a set of retest samples with different concentrations than the current IHPAT PT round. Retest Order Forms are available online at www.aihapat.org. Results from the retest round replace the results for the corresponding failed round. The *Retest Order Form* must be submitted by the specified deadline as indicated in the *PAT Program Schedule* located at www.aihapat.org.

12 ADDITION OF NEW ANALYTES TO THE IHPAT PROGRAM SCHEME

Recommendations for new analytes are received from the AIHA PAT Programs Board or as a result of a survey of PAT Programs participants. Approval of new analytes is the responsibility of the Director, AIHA Proficiency Analytical Testing Programs. The Director is also responsible for advising the selected subcontractor in writing of the requirements and ensuring that a documented discussion on capability, resources and the decisions takes place. Unless otherwise specified, a new analyte under the IHPAT program follows the same scheme design as used for existing analytes. Refer to Review of Requests, Tenders and Contracts for more detail.