Proficiency Test (PT) Study Guidance for Laboratories

Disclaimer: The information in this guidance document does not supplant the provisions of the Environmental Laboratory Accreditation Regulations, 25 Pa Code, Chapter 252, the 2009 TNI Standard, or 40 CFR, Part 141. This document is a tool to help laboratories understand and comply with the various PT Study requirements. If there is any disagreement between the contents of this document and any of the above regulations, the regulations shall prevail. The examples given in this document are for illustrative purposes only, meant to aide individuals in visualizing applications of the regulatory requirements. These examples do not represent all regulatory requirements.

A. Chapter 252 PT Rules:

1. A laboratory shall successfully analyze at least one single blind, single concentration PT study for each requested field of accreditation ("FOA"), when available, within 12 months prior to or during the approval process for initial accreditation [§ 252.501(c)].
   a. The Department publishes a list in the *PA Bulletin* of FOAs for which PT studies are available [§ 252.501(a)].
      i. Laboratories must perform PTs for each FOA listed in *PA Bulletin* for which accreditation is sought.
   b. Chapter 252 defines FOA as "a combination of matrix; method or technology, or both; and analyte or analyte group" [§ 252.1]. The Laboratory Accreditation Program (LAP) has determined that PTs will be required and scored based on:
      i. "Matrix—Method—Analyte or Analyte Group" for DW (see Section C and Appendix C).
      ii. "Matrix—Technology—Analyte or Analyte Group" for NPW and SCM.
         A. The only analyte group designation for NPW and SCM include PCBs as Arochlors. For PCB PT studies, laboratories must report a result for each individual Arochlor in each PT study.
         B. A laboratory must correctly identify and quantitate the appropriate Aroclor in the PT sample.
         C. If the laboratory misidentifies or inappropriately quantitates the Aroclor, the laboratory fails the PCB as Aroclors PT study.
         D. PCBs as Aroclors are scored as a group; a laboratory must have accreditation for all or none of the Aroclors.
2. A laboratory shall successfully analyze at least one single blind, single concentration PT study for each requested FOA, when available, at least every 12 months [§ 252.501(d)].
   a. Failure to successfully complete a PT study within the previous 12 months will result in suspension or revocation of accreditation for the particular FOA [§§ 252.702(a), 252.702(b)(13), and 252.703(b)(2)].
   b. Failure to obtain acceptable results on two (2) consecutive PT studies for a particular FOA will result in suspension or revocation of a laboratory's accreditation for the FOA [§§ 252.702(a) and 252.703(b)(3)].
3. In accordance with the Proposed Rulemaking published in the PA Bulletin on January 22, 2005, "For continued accreditation, a laboratory must successfully analyze one PT study for each FOA every 12 months. The closing date of each PT study for a particular field of accreditation may not be more than 13 months apart."
   a. The closing dates of any two consecutive PT studies for the same FOA shall not be more than 13 months apart. *For example: Study 1 closes on 1/20/2007. Successful analysis of Study 2 must close no later than 2/20/2008.*
4. A laboratory shall purchase PT studies directly from one of the Department approved PT providers [§ 252.501(e)].
5. A laboratory shall ensure that all PT study samples are managed, analyzed and reported in exactly the same manner as real environmental samples [§ 252.501(f)].

   a. Analysis of PT studies by personnel other than the analysts associated with the routine analysis of environmental samples in the laboratory will result in revocation of the laboratory's accreditation in part or in total [§ 252.702(b)(11)].
6. A laboratory shall not send a PT study, or portion of a PT study, for any FOA for which the environmental laboratory has accreditation or seeks to obtain accreditation, to another laboratory for analysis prior to the time the results of the study are released by the PT provider [§ 252.501(g)].
7. A laboratory shall not knowingly analyze a PT study, or portion of a PT study, for another environmental laboratory for any FOA for which that laboratory has or seeks to obtain accreditation [§ 252.501(h)].
8. A laboratory shall not communicate with another environmental laboratory, including other laboratories under common ownership, concerning the PT study prior to the time the results of the study are released by the PT provider [§ 252.501(i)].
9. A laboratory shall not attempt to obtain the prepared value of a PT study from the PT provider prior to the time the results of the study are released by the PT provider [§ 252.501(j)].
10. A laboratory shall investigate, take any necessary corrective actions, and document the investigations and corrective actions for all PT FOAs designated as "Not Acceptable" [§ 252.501(k)].
11. A laboratory shall direct the PT provider(s) to report the PT study results directly to the Department's Laboratory Accreditation Program at the same time that the provider reports the results to the environmental laboratory [§ 252.501(l)].
    a. The LAP will not accept PT studies that do not come directly from the PT provider at the same time as the environmental laboratory receives the results.
    b. The Department will only accept amended PT study results that are due to PT provider error. The corrected report must be received directly from the PT provider and have an explanation of the correction(s).
12. A laboratory shall maintain copies of all raw data associated with PT studies for at least five (5) years [§ 252.501(m)].
13. A laboratory shall evaluate and report the analytical result of each PT study sample to the PT reporting limit (PTRL) for each FOA [§ 252.501(o)].

B. 2009 TNI Standard PT Rules:

1. TNI defines Field of Accreditation ("FOA") as "matrix—technology—analyte" [V1M1, Section 3.5]. Laboratories may analyze one PT sample by multiple methods for a given analyte within a technology. If a laboratory reports more than one method per technology per study, an unacceptable result for any method would be considered a failed study for that technology for that analyte [V2M2, Section 6.3].
    a. The only analyte group designation for NPW and SCM include PCBs as Arochlors. For PCB PT studies, laboratories must report a result for each individual Arochlor in each PT study.
    b. A laboratory must correctly identify and quantitate the appropriate Aroclor in the PT sample.
    c. If the laboratory misidentifies or inappropriately quantitates the Aroclor, the laboratory fails the PCB as Aroclors PT study.
2. PCBs as Aroclors are scored as a group; a laboratory must have accreditation for all or none of the Aroclors.
3. PT samples shall be obtained from designated PTPA-accredited PT Providers [V1M1, Section 4.1.2].
4. The laboratory's management and all analysts shall ensure that all PT samples are handled (i.e., managed, analyzed, and reported) in the same manner as real environmental samples utilizing the same staff, methods as used for routine analysis of that analyte, procedures, equipment, facilities, and frequency of analysis. When analyzing a PT sample, a laboratory shall employ the same calibration, laboratory quality control and acceptance criteria, sequence

of analytical steps, number of replicates, and other procedures as used when analyzing routine samples [V1M1, Section 5.1.1].

   a. In accordance with the NELAP Accrediting Authorities' interpretation, any PT determined to have been handled in a manner other than the same manner as real environmental samples may be determined INVALID and thus not counted toward the laboratory's PT history (See Section E).

5. A laboratory shall not send any PT sample, or portion of a PT sample, to another laboratory for any analysis for which it seeks accreditation, or is accredited [V1M1, Section 5.1.3.a].
6. A laboratory shall not knowingly receive any PT sample or portion of a PT sample from another laboratory for any analysis for which the sending laboratory seeks accreditation, or is accredited [V1M1, Section 5.1.3.b].
7. Laboratory management or staff shall not communicate with any individual at another laboratory (including intracompany communication) concerning the PT sample [V1M1, Section 5.1.3.c].
8. Laboratory management or staff shall not attempt to obtain the assigned value of any PT sample from their PT Provider [V1M1, Section 5.1.3.d].
9. The laboratory shall retain all records necessary to facilitate historical reconstruction of the analysis and reporting of analytical results for PT samples for a minimum of five (5) years [V1M!, Section 5.3.1].
10. The PT report shall be submitted to the required parties no later than 21 days after the close of the study [V3, Section 11.1.1]. The reports shall be submitted to participant laboratories and laboratory-requested ABs within the same 24 hour period [V3, Section 11.1.2].
    a. The LAP will not accept PT studies that do not come directly from the PT provider at the same time as the environmental laboratory receives the results.
    b. The Department will only accept amended PT study results that are due to PT provider error. The corrected report must be received directly from the PT provider and have an explanation of the correction(s).
11. To obtain initial accreditation, the laboratory shall successfully analyze two (2) unique TNI compliant PT samples for each accreditation FoPT that correspond to the FOAs for which it seeks accreditation [V1M1, Section 4.1.1].
12. For a laboratory seeking to obtain accreditation, the PT samples for each accreditation FoPT analyzed by the laboratory prior to the date of application shall be analyzed no more than 18 months prior to the application date, with the analysis date of the most recent PT sample having been no more than six (6) months prior to the application date for accreditation [V1M1, Section 4.1.3].
13. Environmental laboratories seeking to maintain accreditation shall maintain a history of at least two (2) successful performances out of the most recent three (2) attempts; for each accreditation FoPT [V1M1, Section 4.2.1.b].
14. PT analyses must be performed at least 15 calendar days apart from the analysis date of one study to the analysis date of another study for the same FOA [V1M1, Section 4.2.1.a].
    a. If a laboratory analyzes the same FOA in studies that are closer together than 15 days, the second study is considered 'INVALID" and is not counted in the laboratory's PT history (See Section E).
15. For continuing accreditation, completion dates of successive PT studies for each individual FOA shall be between five (5) and seven (7) months apart [V1M1, Section 4.2.1.a]. Failure to meet the semiannual schedule is regarded as a failed study.
    a. The Department will record a failure for each FOA where the study closing dates are more than seven (7) months apart.
    b. If a failure is recorded as indicated in (a) above, this failure will be recorded in the laboratory's PT history and will be considered one of the most recent three (3) rounds attempted.
    c. If a failure is recorded as in (b) above, the next successful PT will be required no more than 13 months from the last successful PT reported. *For example, if the laboratory participates*

in Study 1 with a closing date of 1/1/2007 (all FOAs are "Acceptable"), but does not participate in a study as required on or before 8/1/2007 (i.e. seven (7) months from 1/1/2007), a failure is recorded for all appropriate FOAs. The next successful PT study is required to have a closing date on or before 2/1/08 (i.e. 13 months from the closing date of Study 1).

16. Environmental laboratories shall maintain a history of two (2) successful PT studies for each FOA out of the latest three (3) rounds attempted. The Department will suspend an environmental laboratory's accreditation for a FOA for failure to obtain acceptable results on two (2) out of the most recent three (3) PT studies attempted for a particular FOA [V2M2, Section 10.1.a].
17. After being suspended due to failure of PT studies, if the laboratory's analysis of the next PT study results in three consecutively failed PT studies, the laboratory's accreditation shall be revoked for each affected FOA [§ 252.702(a)]. In order to regain accreditation for the revoked FOAs, the laboratory must:
    a. Provide the Department with a report outlining the investigation undertaken in the laboratory and any corrective action resulting from this investigation.
    b. Meet the two (2) successful PT studies out of the most recent three (3) attempts.
    c. Submit an application for Addition of Fields of Accreditation for the requested FOAs including the $250 fee [§ 252.204]..
18. The PT study results shall be submitted to the PT Provider no later than 45 calendar days from the opening of the study [V3, Section 8.1].
    a. If a PT study is "open" for more than 45 calendar days, the study will be designated as "INVALID" and will not be counted in the laboratory's PT history (See Section E).
    b. A NELAP laboratory may not use DMR-QA studies to count toward their PT history because they do not meet the requirements of a NELAP PT study. They are open for more than 45 calendar days.
19. The laboratory may choose to analyze supplemental PT studies. In addition to the above requirements, these supplemental PT studies must meet the following criteria:
    a. The PT provider cannot supply the laboratory with a sample that has been previously sent to the laboratory [V3, Section 8.4.1.d].
    b. The assigned values for all analytes requested by the laboratory must not be equal to zero [V3, Section 8.4.2].
    Exception: Qualitative PCB group and qualitative microbiology [V3, Section 8.4.3].
20. A laboratory may withdraw from a PT study for an analyte(s) or for the entire study.

C. Drinking Water Program Rules:

1. The PT samples analyzed in the Drinking Water matrix must meet the requirements of 40 CFR, Part 141 [§ 252.501(n)].
2. Successful analysis of a PT per "matrix—method—analyte or analyte group" shall occur once per 12 months [40 CFR 141.23(k)(3)(i), 141.24(h)(17)(i)(A), and 141.89(a)(1)(i)].
    a. The closing dates of any two consecutive PT studies for the same method/analyte (or analyte group) combination shall not be more than 13 months apart as specified in Section A.3. *For example: Study 1 closes on 1/20/2007. Successful analysis of Study 2 must have a closing date on or before 2/20/2008*.
3. A laboratory must perform a drinking water PT for each method once per 12 months, regardless of whether or not multiple methods are considered the same technology [40 CFR 141.23(k)(3)(ii), 141.24(h)(17)(i)(A), and 141.89(a)(1)(i)]. *For example, a laboratory seeks to obtain or maintain accreditation for pH by both the Standard Method and the EPA method. Both methods are considered the same technology of "electrode". The laboratory must successfully analyze a WS PT for pH by both SM 4500-H^+ B and EPA 150.1 once every 12 months.*

4. Laboratories accredited for DW under NELAP must meet the TNI PT rules as well as the Drinking Water Program rules. It is the responsibility of the laboratory to satisfy the regulatory authorities [V1M2, Section 4.1.2].
   a. DW NELAP laboratories must analyze a PT for each method once per year. This can be accomplished by analyzing the same PT by multiple methods or by analyzing different methods in alternating PT studies.
   d. NELAP PTs are scored by technology. If a laboratory chooses to analyze multiple methods in the same PT study, a failure for one method will result in a failure for the technology regardless of the performance of the other method in the same study.
5. The Drinking Water matrix includes multiple "analyte groups". These groups are defined by EPA and include the following: Regulated VOCs (Group 1 and Group 2), Total Trihalomethanes (TTHMs), Haloacetic Acids (HAA5s), and PCBs as Aroclors.

<u>For Volatile Organic Compounds (VOCs) [40 CFR 141.24(f)(17)(i)]:</u>

   a. Regulated VOCs Group 1 must be analyzed as an entire group. Laboratories must analyze the entire group in one PT study including remediation studies.
   b. Group 1 includes 20 regulated VOCs (See Appendix A) A laboratory must successfully analyze and report 80% of the compounds in order to "pass" the PT study. Thus, a laboratory may not receive a "Not Acceptable" designation on more than four (4) of the Group 1 compounds. A laboratory must correctly report at least 16 of the compounds.
   c. If the laboratory incorrectly reports five (5) or more compounds, a failure is recorded for all VOCs in Group 1 for the PT study.
   d. For subsequent analyses of PT studies, the laboratory may not fail the same compound in consecutive PT studies. *For example, a laboratory receives "Not Acceptable" results for five (5) compounds, including chlorobenzene, in Study 1 (which results in a loss of accreditation for Group 1 VOCs). In Study 2, the laboratory receives "Acceptable" results for 18 compounds, but receives a consecutive "Not Acceptable" result for chlorobenzene. The laboratory will continue to be "Suspended" for the Group 1 VOCs because incorrectly analyzing the same parameter on two (2) consecutive PT studies while maintaining an overall 80% correct rating constitutes an unacceptable PT study result*.
   e. Group 2 includes one compound—vinyl chloride. A laboratory must successfully analyze vinyl chloride once every 12 months if seeking accreditation for this group.
   f. The laboratory must maintain accreditation for Group 1 in order to maintain accreditation for Group 2. If a laboratory loses accreditation for Group 1, then the laboratory will lose accreditation for Group 2 regardless of the laboratory's PT history for Group 2.

<u>For Total Trihalomethanes (TTHMs) [40 CFR 141.131(b)(2)]:</u>

   g. TTHMs must be analyzed as an entire group. Laboratories must analyze the entire group in one PT study including remediation studies.
   h. TTHMs consist of four compounds. A laboratory must successfully analyze and report all of the compounds to "pass" the study.
   i. If a laboratory analyzes a remediation study, the laboratory must successfully report all of the TTHMs in the same study to regain accreditation.

<u>For Haloacetic Acids (HAA5) [40 CFR 141.131(b)(2)]:</u>

   j. HAA5s must be analyzed as an entire group. Laboratories must analyze the entire group in one PT study including remediation studies.
   k. HAA5s consist of five compounds. A laboratory must successfully report 80% of the compounds to "pass" the study. Thus, a laboratory may receive a "Not Acceptable" designation on one (1) compound and still "pass" the PT study for the HAA5 group. A laboratory must correctly analyze and report four (4) of the compounds.
   l. If the laboratory incorrectly reports two (2) or more compounds, a failure is recorded for the PT study.
   m. If the laboratory analyzes a remediation study, the laboratory may not fail the same compound in consecutive PT studies. *For example, a laboratory receives "Not Acceptable"*

results for two (2) compounds, monochloroacetic acid and dibromoacetic acid, in Study 1 (which results in a loss of accreditation). In Study 2 the laboratory receives "Acceptable" results for four (4) compounds, but receives a consecutive "Not Acceptable" result for dibromoacetic acid. The laboratory will continue to be "Suspended" for HAA5s because incorrectly analyzing the same parameter on two (2) consecutive PT studies while maintaining an overall 80% correct rating constitutes an unacceptable PT study result.

PCBs as Aroclors [40 CFR 141.24(h)(13)]:

n. A laboratory may apply for accreditation for PCBs as Aroclors by EPA 505, EPA 508, EPA 508.1, and EPA 525.2.
o. A laboratory must correctly identify and quantitate the appropriate aroclor in the PT sample.
p. If the laboratory misidentifies or inappropriately quantitates the aroclor, the laboratory fails the PCB as Aroclors PT study.
q. PCBs as Aroclors are scored as a group; a laboratory must have accreditation for all or none of the aroclors.

6. Microbiology presence/absence PT studies include analysis of one PT set comprised of 10 samples. The laboratory must correctly analyze a minimum of nine (9) of the 10 samples, with no false negative results.
   a. The laboratory must analyze and report results for total coliforms (main) and either fecal coliforms or E. coli (verification) depending on the specific verification method for which the laboratory as applied for or obtain accreditation.
   b. A laboratory accredited for both fecal coliform and E. coli verification used in conjunction with a main portion must analyze and report results for both verification procedures.
   c. A "Not Acceptable" evaluation for either the main or verification portion of the PT may result in suspension or revocation of accreditation for BOTH the main and verification portion as outlined in A2, B13, B14, B15 and C1.
   d. *For example, a laboratory accredited for SM 9222B that verifies using both SM 9221E (EC broth) and SM 9222G (EC+MUG) would need to report PT results for SM 9222B + 9221E (EC broth) and SM 9222B + 9222G (EC+MUG)*.

D. General PT Requirements and Guidelines:

1. PTs are required for each Field of Proficiency Test (FoPT) listed on the PA State FoPT Tables for Chapter 252 accredited laboratories and the TNI FoPT Tables for TNI accredited laboratories. In accordance with the PA and TNI FoPT Tables:
   a. Laboratories accredited for total nitrate/nitrite as N are required to analyze a PT for "Nitrate + Nitrite as N". Analysis of individual PTs for nitrate as N and nitrite as N does not fulfill the total nitrate/nitrite as N requirement.
   b. Laboratories accredited for the dichlorobenzenes must analyze the appropriate PT based on the laboratory's preparation and analytical technique. *For example, a laboratory that seeks to maintain accreditation for 1,2-dichlorobenzene by EPA 8260 and EPA 8270 must analyze a PT for 1,2-dichlorobenzene by both techniques (see footnotes to the FoPT Tables) with the required frequency as determined by either the Chapter 252 or TNI PT requirements*.
2. When a laboratory is accredited for a FOA that allows for analysis of PTs based on concentration ranges, i.e. Volatile Organics and PAHs in Soils, the laboratory must analyze PTs based on its reporting ranges/calibration ranges.
   a. *For example, a laboratory that seeks to obtain or maintain accreditation for EPA 8330 (an HPLC method for analyzing low level PAHs) must analyze the Low Level PAH PT*.
   b. *For example, a laboratory that seeks to maintain or obtain accreditation for EPA 5035 (bisulfate option) must analyze the regular level Volatiles PT (analyte levels are ≈ 20-200 µg/kg)*.
   c. *For example, a laboratory that seeks to obtain or maintain accreditation for EPA 5035 (methanol option) or EPA 5035 (unpreserved option) must analyze the mid-level Volatiles PT (analyte levels are ≈1,000-10,000 µg/kg)*.

d. *For example, a laboratory that seeks to obtain or maintain accreditation for all three EPA 5035 options may choose which PT range it will analyze as long as the chosen concentration is representative of concentrations of the real environmental samples analyzed in the laboratory*.
   i. Laboratories accredited as indicated in this example are strongly encouraged to analyze both PT ranges in alternating PT studies.
   ii. If a laboratory chooses to analyze both ranges in the same PT study, then a result designated as "Not Acceptable" for an analyte in one range would result in a failure for the analyte for that study, regardless of the result for the other range.

3. For methods that require that sample preparation to be performed by a different method than the one used for analysis, the appropriate method to report to the PT Provider is the "analysis method" which would be the analytical method designation.
   a. *For example, a laboratory that seeks to maintain or obtain accreditation for hexavalent chromium by EPA 7196A and the preparation of the hexavalent chromium sample by EPA 3060A must report the hexavalent chromium PT sample as analyzed by EPA 7196A.* If the laboratory reports the PT sample as analyzed by EPA 3060A, the PT would be scored as INVALID. (See Section E)
   b. *For example, a laboratory seeks to maintain or obtain accreditation for TKN using Standard Methods. The laboratory digests the sample using SM 4500-N_{org}-B, distills the sample using SM 4500-NH_3^- B, and analyzes the sample by SM 4500-NH_3^- G. The laboratory must report the PT sample as analyzed by SM 4500- NH_3^- G.* If the laboratory reports the PT sample by one of the preparation steps the PT would be scored as INVALID. (See Section E)

E. Invalidated PT Studies

PT studies may be invalidated for various reasons. When a PT study is invalidated, the invalidated PT study does not affect a laboratory's PT history. This means that the PT study is considered neither a "Pass" nor a "Failure." The following invalidation rules apply:

1. An invalid PT study is not recorded as part of the laboratory's PT history, regardless of a designation by the PT provider as "Acceptable" or "Not Acceptable".
2. The reasons that the Department will invalidate a PT study include, but are not limited to, the following:
   a. A laboratory reported the incorrect method in the PT study [V2M2, Section 7.3.c].
      i. *For example, an incorrect method would be a method other than that which the laboratory seeks to obtain or maintain accreditation. For example, a laboratory seeks to obtain or maintain accreditation for TDS by SM 2540C, but the laboratory reports the PT study as analyzed by EPA 160.1. The PT would be invalid because the laboratory has not applied for or obtained accreditation for EPA 160.1.*
      ii. Laboratories must analyze and report PTs in the same manner as real environmental samples. The laboratory must analyze and report client samples by an accredited method, and therefore, the PTs must be analyzed and reported by a method for which the laboratory holds or seeks to obtain accreditation.
   b. A laboratory failed to submit the results to the PT provider before the closing date of the study [V1M1, Section 5.2.3 and V2M2, Section 7.3.b].
   c. The laboratory requested the PT study to be provided to the Department after the closing date of the study [V1M1, Section 5.2.4].
   d. A NELAP laboratory participated in a PT study that did not meet the 15-day requirement specified above [V2M2, Section 7.3.b].
   e. A NELAP laboratory participated in a PT study that did not meet the 45-day requirement specified above [V2M2, Section 7.3.b].
   f. A laboratory fails to handle the PT samples in the same manner as real environmental samples [V2M2, Section 6.1].

i. *For example, during an on-site evaluation, the Department reviews a PT study that the laboratory analyzed multiple times over the course of several days, and the QC passed for each analytical run. The regular laboratory practice is to re-analyze client samples only when the QC does not meet acceptance criteria. The Department may invalidate the PT study because the laboratory failed to analyze the PT samples in the same manner as real environmental samples*.
ii. The invalidated PT study would be removed from the laboratory's PT history.
iii. If the removal of the PT study results in the State laboratory's failure to maintain a history of successful analysis of a PT study in the most recent 13 months, the State laboratory's accreditation status for the affected FOAs would be changed to "Suspended."
iv. If the removal of the PT study results in the NELAP laboratory's failure to maintain a history of successful analysis of two (2) PT studies out of the most recent three (3) rounds attempted, the NELAP laboratory's accreditation status for the affected FOAs would be changed to "Suspended."

3. Should the PT provider invalidate a PT study, the Department may invalidate that PT study. If the Department invalidates a PT study at the recommendation of the PT provider, the invalidated PT study would not count toward the laboratory's PT history.
   a. If the Department invalidates a PT study at the PT provider's recommendation that results in the laboratory's inability to meet the required PT participation frequency specified in this guidance document and associated regulations/standards, the Department will allow the laboratory to have an additional 30 calendar days to participate in a supplemental PT study.
   b. The supplemental PT study must be ordered, analyzed, and reported to the PT provider no later than midnight on the 30th day after the 13-month or 7-month requirement, as appropriate depending on the accreditation type sought (State or NELAP).

F. Helpful Hints

1. To ensure that the PT study is credited to the correct laboratory's PT history:
   a. Ensure that the Laboratory Name and Address reported to the PT Provider are the same as those provided on the most recent Application for Accreditation, Part 1.
   b. Ensure that the correct PA DEP Lab ID # and EPA Laboratory ID # are reported to the PT Provider with each PT study.
2. PTs must be performed for each matrix for which the laboratory seeks to obtain or maintain accreditation.
   a. WS PTs are the appropriate PT to perform for Drinking Water accreditation. Analysis of WS Studies does not count toward the PT requirement for the Non-Potable Water matrix.
   b. WP PTs are the appropriate PT to perform for Non-Potable Water accreditation. Analysis of WP Studies does not count toward the PT requirement for the Drinking Water matrix.
   c. SOIL (or RCRA) PTs are the appropriate PT to perform for Solid and Chemical Materials accreditation.
3. When reporting results to the PT Provider:
   a. Ensure that the method reported is the actual method used to analyze the samples and is correct method for which accreditation is sought.
   b. Ensure that the results reported are in the correct units as specified in the PT Provider's reporting procedures.
   c. Ensure that the report indicates that the results are to be sent to the PA-DEP Laboratory Accreditation Program.
      i. If an applicant laboratory is worried that the PT Provider may not report the PT Study results to the LAP in a timely fashion, the laboratory should sent an e-mail or letter to the Laboratory Accreditation Program prior to the closing date of the study.
      ii. In this letter, the laboratory should indicate the PT Provider, study number, opening date, and closing date.

Appendix A

Regulated Volatile Organic Compounds (VOCs) Group 1

1,1-Dichloroethene	1,1,1-Trichloroethane	Chlorobenzene	Tetrachloroethene
1,2-Dichlorobenzene	1,1,2-Trichloroethane	cis-1,2-Dichloroethene	Toluene
1,2-Dichloroethane	1,2,4-Trichlorobenzene	Dichloromethane	Trichloroethene
1,2-Dichloropropane	Benzene	Ethylbenzene	trans-1,2-Dichloroethene
1,4-Dichlorobenzene	Carbon Tetrachloride	Styrene	Xylenes (Total)

Regulated Volatile Organic Compounds (VOCs) Group 2

Vinyl Chloride

Total Trihalomethanes (TTHMs)

Bromodichloromethane	Chlorodibromomethane
Bromoform	Chloroform

Total Haloacetic Acids (HAA5)

Monochloroacetic Acid	Trichloroacetic Acid	Dibromoacetic Acid
Dichloroacetic Acid	Monobromoacetic Acid	

PCBs as Aroclors:

Aroclor 1016	Aroclor 1248
Aroclor 1221	Aroclor 1254
Aroclor 1232	Aroclor 1260
Aroclor 1242	