pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Source Testing / Frequently Asked Questions (FAQs)

Acceptance of all testing is contingent upon the review of, and conformance to, the information in this document; otherwise, there may be adverse consequences, including the potential rejection of affected test data, which may result in enforcement action. This document, which will be updated periodically, is intended to provide clarification, to eliminate confusion, and to promote consistency for the benefit of all. This document applies to all counties within the Commonwealth of Pennsylvania, excluding Allegheny and Philadelphia. This document does not pertain to relative accuracy test audits (RATAs) or source testing related to continuous emission monitoring systems (CEMS) or their certification.

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Source Testing / Frequently Asked Questions (FAQs)

Question 1: What are the submittal requirements?

Answer: DEP requires that an electronic copy of all source test submissions (protocols, reports, supplemental information, etc.) be sent to both the Air Quality (AQ) Program Manager for the pertinent regional office and the Pennsylvania Sourcetest Information Management System (PSIMS) Administrator in Central Office (addresses are provided below). Do not send submissions to anyone else in DEP unless specifically directed to do so. When submitting test reports, do not combine the data for multiple facilities (i.e. more than one Facility ID) into a single test report. To minimize the potential for rescheduling of the test, all protocols should be submitted as soon as practical and must be received at least 90 days prior to testing. Test reports must be received no later than 60 days after the completion of testing, unless a more stringent regulatory requirement applies. Any questions or concerns about source testing submissions may be sent to the PSIMS Administrator at RA-EPstacktesting@pa.gov. Submissions to the Environmental Protection Agency (EPA) should continue, as required, and are independent of the submittal requirements outlined in this answer to Question 1.

The following pertinent information shall be listed on the title page.

1. Test Date(s)
   a. For protocols, provide the proposed date on which testing will commence or "TBD"
   b. For reports, provide the first and last day of testing
2. Facility Identification Number (Facility ID)
   (For test programs that were conducted using a multi-site protocol, also include the Facility ID under which the protocol was stored in PSIMS, as indicated in the protocol response letter.)
3. Source ID(s) for the applicable source(s) and air pollution control device(s)
   a. The term Source ID is used in the permit but "Other Id" is used in DEP electronic systems. While you may include stack exits, generally IDs with a leading "S", a stack exit alone is not sufficient identification.
   b. If a Source ID does not exist for the source and/or control device, it is the facility's responsibility to contact DEP regional/district staff to have an ID created in eFACTS, before submission. DEP will not accept a submission without this information and it will be rejected by the PSIMS Administrator upon receipt.
4. Testing Requirements (all that apply including the applicable section)
   a. Request for determination (RFD) number
   b. Plan approval number(s)
   c. Operating permit number
   d. Applicable federal subpart(s) (i.e. 40 CFR 60, Subpart JJJJ)
   e. Special purpose(s) (Consent Order, RACT II, Tier II, etc.)
5. One or more descriptors (all that apply)
   a. PUBLIC COPY
   b. CONFIDENTIAL COPY

c. PERIODIC MONITORING PROTOCOL
d. PERIODIC MONITORING TEST (submit to regional offices only)
e. COMPLIANCE TEST PROTOCOL
f. COMPLIANT TEST
g. NON-COMPLIANT TEST
h. COMPLIANT RETEST
i. NON-COMPLIANT RETEST
j. RESUBMISSION, INCOMPLETE REPORT (indicate whether it is the 1st or 2nd Revised Submittal – per §2.1 of DEP's Source Testing Manual: "Sanctions may be imposed against those who repeatedly submit incomplete procedural protocols or source test reports.")

A Test Results Summary (TRS) shall be provided on the first page after the cover for each condition. If the test report does not contain a TRS, which contains the following pertinent information, it will be rejected upon receipt as being administratively deficient.

1. Test Date(s) for each test. Using Section A (Site Inventory List) of the plan approval(s) and/or operating permit, identify the Source ID and name for the process, the Source ID and name for the control device(s), and the operating condition (fuel, load, etc.).
2. Average result(s) for each pollutant measured, in units of the emission standard(s)
3. Emission standard(s) for each pollutant measured
4. Where the emission standard(s) was obtained
5. Whether the results demonstrate compliance or non-compliance with the permit limit(s) – for each emission standard, you must use the word "compliant" or "non-compliant". If there is no applicable emission standard, use "no standard" next to the emission result. This is a mandatory, self-reporting requirement.

Paper Copies

A printed copy of the test report is only required when requested by DEP.

Electronic Copies

Send legible electronic submissions in a single email to both the PSIMS Administrator in Central Office and the Air Quality Program Manager for the pertinent regional office. Email addresses are provided below. In lieu of emailing the electronic copy, other forms of digital media, such as CDs and DVDs may be submitted. Note, however, that USB flash drives are not an acceptable format due to IT security concerns. The digital copy shall include the cover letter (if submitted), protocol/report, and all appendices (including all lab data).

DEP is now accepting permit and authorization applications, correspondence, reporting, and general communications electronically through the OnBase Electronic Forms Upload tool. Documents currently submitted through other electronic means such as stack test reports, emission inventory, continuous

emission monitoring reports, GP5/5A applications and asbestos notifications should continue to be submitted using the previously established systems. Please use the link below to view the webpage, get instructions, and submit documents: https://www.dep.pa.gov/DataandTools/Pages/Application-Form-Upload.aspx

Central Office
RA-EPstacktesting@pa.gov

Southeast Region
(Bucks, Chester, Delaware, and Montgomery)
RA-EPSEstacktesting@pa.gov

Northeast Region
(Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne, and Wyoming)
RA-EPNEstacktesting@pa.gov

Southcentral Region
(Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry, and York)
RA-EPSCstacktesting@pa.gov

Northcentral Region
(Bradford, Cameron, Centre, Clearfield, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga, and Union)
RA-EPNCstacktesting@pa.gov

Southwest Region
(Beaver, Cambria, Fayette, Greene, Somerset, Washington, and Westmoreland)
RA-EPSWstacktesting@pa.gov

Northwest Region
(Armstrong, Butler, Clarion, Crawford, Elk, Erie, Forest, Indiana, Jefferson, Lawrence, McKean, Mercer, Venango, and Warren)
RA-EPNWstacktesting@pa.gov

DEP limits emails and their attachments to 35 MB combined and PSIMS has a file size limitation of 125 MB for electronic files. Submit just **one** electronic file (convert any Microsoft Word or Excel files to an Adobe PDF format and combine them with the report or protocol), unless the submission contains confidential information.

Confidential Information
If confidential information must be submitted, submit both a public copy, which has been redacted, and a confidential copy. The cover page of each submittal

should state whether it is a Public Copy or Confidential Copy and each page of the latter must be marked CONFIDENTIAL.

Environmental Lab Registration
As discussed in the answer to Question 9, every submission to DEP must include the DEP Lab Registration ID for all environmental laboratories; otherwise, the results will not be validated as acceptable by DEP and cannot be used for regulatory purposes.

Periodic Monitoring (often called Portable Analyzer Testing)

Periodic monitoring, which utilizes a portable analyzer, is intended to verify continuous compliance with an emission standard. The results of such testing, which cannot be used to demonstrate compliance (per §2.10 of DEP's Source Testing Manual), are only to be submitted to the Air Quality Program Manager for the pertinent regional office through Greenport (ePermitting (pa.gov)). On the Public Upload with Payment site, select the submission type "Air Quality Report or Miscellaneous Submission". A copy should *not* be sent to the PSIMS Administrator in Central Office because this data will be reviewed solely by DEP's regional staff. Note on the cover of the report that the test is for PERIODIC MONITORING.

Test Notifications
Do not send test notifications to the PSIMS Administrator (RA-EPstacktesting@pa.gov). Test notifications must only be submitted to the Air Quality Program Manager for the pertinent regional office through Greenport (ePermitting (pa.gov)). On the Public Upload with Payment site, select the submission type "Air Quality Report or Miscellaneous Submission".

Central Office staff may request notification be provided prior to testing. For example, language in a letter in response to the submission of a test protocol may request that the protocol reviewer be notified so that they could observe the testing. Note that 25 Pa. Code 139.2(1) requires that DEP be provided a reasonable opportunity to observe the testing and failure to provide timely advance notification could lead to the results of the testing being rejected.

Visible Emissions (VE) / Fugitive Emissions (FE)
When a submission (protocol or report) pertains solely to VE and/or FE (a.k.a. opacity readings), it should only be submitted to the Air Quality Program Manager for the pertinent regional office. The PSIMS Administrator in Central Office should not be notified because this type of submission will be reviewed solely by DEP's regional staff.

Question 2: May protocols or reports be submitted online via DEP's GreenPort?

Answer: Not at this time.

Question 3: What documentation must be provided if asserting confidentiality of information provided to DEP?

Answer: Per Section 13.2 of the Air Pollution Control Act (APCA), information can generally qualify for confidential treatment if it is not emission data and if disclosure of the information would divulge production or sales figures or methods, or would divulge a unique process or production, or would otherwise adversely affect competitive position by revealing trade secrets. The exact text of Section 13.2 of the APCA is provided below. Please note that the word "confidential" on a page or plan sheet submitted to DEP has no validity by itself. Each item must be identified, and justification presented, per Section 13.2, to warrant confidential treatment.

To request confidential treatment of information, the submitter must provide a redacted version of the original document with the confidential information blacked out (and thus suitable for public disclosure). A letter of request containing a table identifying the page and line number of each redaction, along with a justification for each redacted section/item as to why it should be deemed confidential under the specific criteria allowed under Section 13.2 of the APCA must also be provided. DEP's final decision on a confidentiality request will be sent to the submitter, along with a notice of appeal rights, in the event the request is denied. Adequate justification for each redacted section/item must be provided and meet one of the specific criteria outlined in Section 13.2 of the APCA or the request may be denied.

Example Confidential Information Log

Page # in Document	Description	Basis for Confidential Treatment as Identified in the Pennsylvania Air Pollution Control Act, 35 P.S. § 4013.2

Question 4: May a single test protocol be submitted for multiple facilities?

Answer: Submittal of a single test protocol for multiple facilities will only be approved by the Department for natural gas compressor stations. A multi-site protocol must include all the following information:

1. Facility Names and Facility IDs
2. Make, Model, Source ID (including control), and S/N for each source
3. Municipality, County, and DEP Region for each source
4. Applicable Regulatory Requirements for each source (AG5, AG5A, permit number, ZZZZ, JJJJ, KKKK, for instance)

Approval of the multi-site protocols is limited strictly to the facilities and sources identified in the test protocol and does not extend to other testing contractors, facilities or sources that might be installed in the future. Multi-site protocol approvals will be specific to one tester, the sources listed, and one compliance type (i.e. Federal Subpart, AG5, AG5A, Plan Approval, Operating Permit, etc.). Any changes to these criteria will require the submittal of a new protocol. Submission of multi-site test reports is not permissible. DEP's protocol response letter must be included in each test report submittal and the Facility ID where the protocol is stored must be listed on the cover page of the report.

Question 5: May a previously approved test protocol be reused?

Answer: Per §2.1.1 of DEP's Source Testing Manual, "When testing of a source is required on a recurring basis, a single procedural protocol may be submitted for approval; thereafter, a letter referencing the previously approved procedural protocol is sufficient." However, the following conditions must be met to reuse the protocol:

1. The protocol was acceptable. If the protocol was found to be "unacceptable" or "unacceptable, unless the following conditions are met", it is ineligible for reuse because it was deficient. The source testing reviewer may choose to waive this requirement and allow the reuse of a conditional letter, provided that the testing complies with all conditions of acceptance or other agreements between DEP, the facility, and the testing contractor.
2. No substantive changes have been made or are being proposed. Substantive changes would include, but are not limited to: changes to applicable regulations, the plan approval(s) or operating permit, DEP guidance, the Source Testing FAQs, operating conditions, test methodology, and/or the testing contractor. If there are substantive changes, a new test protocol must be submitted for review and approval at least 90 days prior to testing.
3. The test program and report submittal will conform to the latest version of the Source Testing FAQs on DEP's website, at the time of testing.

Source Testing, not DEP regional/district staff, must approve the protocol, in writing, for reuse, prior to each testing event. A request for reuse must be made at least 90 days prior to testing. The source testing reviewer has sole discretion to approve/disapprove the reuse of the protocol, even if previously approved, based on new information, problems with a past protocol/report review, or other factors. If the above conditions have been met, a test notification letter, which includes a statement such as the example below, must be submitted to DEP at least 15 calendar days prior to testing, or more if required by a regulatory requirement. When

submitting the test notification, do not submit the previously approved test protocol or request changes.

Example Letter
[Facility] intends to test [Source Name] (DEP Source ID ###) at their [Site Name] on [Proposed Test Date], using the test protocol, dated [Approval Date] and previously approved by [Protocol Reviewer] on [Protocol Approval Date]. [Facility] confirms that there have been no substantive changes, including: relevant changes to the regulation(s), the plan approval(s) or operating permit, DEP guidance, operating conditions, test methodology, or the testing contractor, since the protocol was approved and [Facility] affirms that testing will be conducted per the protocol and will comply with all conditions of acceptance in the approval letter and the Source Testing FAQs located at: https://www.dep.pa.gov/Business/Air/BAQ/BusinessTopics/SourceTesting/Pages/default.aspx.

Question 6: What are the requirements if DEP's source test reviewer has disallowed the reuse of a previously approved test protocol?

Answer: A new test protocol must be submitted to DEP for approval that includes updates that reflect all correspondence between the facility, testing contractor, and source testing reviewer that includes all comments, the most recent protocol response letter, and the test review memorandum.

Question 7: If a test report was deemed to be unacceptable by DEP, may a revision be submitted?

Answer: Refer to §2.1 (Submittals and Approval) of DEP's Source Testing Manual. Only one revision may be submitted provided it is received within the timeframe stipulated by DEP regional staff. Submission of more than one revision is unacceptable and will not be reviewed.

Question 8: When DEP's source test reviewer requests supplemental information for a test protocol or report, how much time does the facility (or their designee) have to submit it?

Answer: All requested information must be received within 10 business days or the submittal may be deemed to be unacceptable.

Question 9: Who may test or analyze environmental samples?

Answer: All environmental laboratories shall register with DEP (on a registration form prepared by DEP's Bureau of Laboratories) before beginning operations. An environmental laboratory is a facility engaged in the testing or analysis of environmental samples. Environmental samples are defined as a solid, liquid, gas, or other specimen, taken for testing or analysis, as required by an environmental

statute, administered by DEP and relating to the protection of the environment or of public health, safety and welfare. Please refer to Section 7(a) (Interim Requirements) of the Environmental Laboratory Accreditation Act (Act of 2002, No. 25) at: https://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Labs-Act-25-of-2002.aspx for additional details. Every submission to DEP must include the DEP Lab Registration ID for all environmental laboratories; otherwise, the results will not be validated as acceptable by DEP and could not be used for any regulatory purpose. Labs that are registered with the DEP can be found here: http://cedatareporting.pa.gov/Reportserver/Pages/ReportViewer.aspx?/Public/DEP/Labs/SSRS/Registered_Labs

Question 10: What are the requirements for audit samples and proficiency testing?

Answer: Audit samples are required for every test project, if they are commercially available from at least two providers. There are currently no providers for this program. This answer will be updated in the event that at least two independent accredited audit sample providers have audit samples available for purchase.

Question 11: How many source test runs are required?

Answer: A minimum of three valid runs are always required, unless specified otherwise in a federal subpart.

Question 12: Under what conditions must testing of reciprocating internal combustion engines (RICE), subject to 40 CFR 60 (NSPS), Subpart JJJJ be conducted?

Answer: According to the U.S. Environmental Protection Agency's (EPA's) April 2, 2013, *Implementation Question and Answer Document for National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines and New Source Performance Standards for Stationary Compression Ignition and Spark Ignition Internal Combustion Engines:* "The test should be conducted within 10% of the highest achievable load for the engine at the engine's site conditions. If operating conditions change such that the highest achievable load for the engine at the engine's site conditions changes and the original test load is not within 10% of the new highest achievable load, then the engine must be retested." It is the facility's responsibility to notify the DEP regional/district staff if the original test load is not within 10% of the new highest achievable load.

Question 13: Under what source operating conditions must testing be conducted?

Answer: In general, emission tests are to be conducted under source operating conditions, as outlined below and are listed in order of priority. These source operating conditions during testing must be addressed during the protocol review process. This includes the information to be collected during the test and which will be provided in the test report.

a) Applicable Federal Subpart(s)

The emission testing must be performed under the specifically defined operating conditions required by the federal rule. If no specific condition(s) is (are) specified, testing must minimally be conducted while operating as discussed under (b) below (MROC).

b) Maximum Routine Operating Conditions (MROC)
Unless an applicable federal subpart, or plan approval or operating permit applies, per 25 Pa. Code 139.11(1), "[t]he source must operate at maximum routine operating conditions or under other such conditions, within the capacity of the equipment, as may be requested by [DEP]". Failure to do so may result in a restriction on, or modification of, the operating conditions, or other actions by mutual agreement between DEP's regional staff and the facility. The maximum normal operating conditions for each source and control device must be provided in all submittals. The most accurate way to know MROC is for the permittee to maintain daily operational and control device logs of pertinent data, as required by 25 Pa. Code 139.11(2). Instead of operating at MROC during testing, a facility would generally be permitted to operate at 90-100% of its full load or the maximum rated capacity (TO VOC DE testing would be an exception, refer to Question 14).

c) Applicable Plan Approval(s) and/or Operating Permit
The emission testing must be performed under the specifically defined operating conditions required by the plan approval(s) and/or operating permit. If no specific condition(s) is (are) specified, testing must minimally be conducted while operating as discussed under (b) above (MROC).

d) Other Operating Scenarios, Pre-Approved by the DEP and/or EPA
If testing cannot be conducted in accordance with (a), (b), or (c) above, contact DEP regional/district staff, prior to testing, for approval of testing under other operating conditions.

Changing conditions (such as burner tuning, damper positioning, etc.) during or between test runs is not allowed. If changes occur, all data must be included in the report.

Question 14: Under what source operating conditions must volatile organic compound (VOC) destruction efficiency (DE) testing of a thermal oxidizer (TO) be conducted?

Answer: The required source operating conditions for this type of testing differ from the general source operating conditions addressed in Question 13. Conduct the performance test while the source(s) is (are) operating under routine operating conditions, not maximum routine, and while the actual temperature of the TO, not the setpoint, is within 5% of the minimum temperature required by the applicable regulatory requirement or within 5% of the minimum temperature that the TO will be maintained at in the future. Written permission for a temporary waiver must be obtained from DEP's regional staff, prior to testing, if the facility wishes to test at

a temperature lower than the minimum required by the applicable regulatory requirement.

Question 15: When is the collection efficiency requirement, per §2.8 of DEP's Source Testing Manual, not applicable?

Answer: The following exemptions apply: (1) when sampling the emissions from lime or cement kilns; (2) when testing for nitric acid; and (3) when the analyte results are less than the limit of quantification (LOQ), which is the lowest concentration that can be reliably detected and quantified.

Question 16: How are emission results to be calculated?

Answer: All emission results must be measured and calculated in a manner that is consistent with how the emission standard was developed. The plan approval(s) and/or the operating permit, and the test report should document how the emission standard was developed to minimize delays in the review of test protocols and test reports. Per §2.1.2.12 of DEP's Source Testing Manual, the test report must include "[a] complete set of sample calculations for (at least) one run of each pollutant test. This sample should show all the formulas and input values used to calculate the emissions from the raw data."

Question 17: Is it appropriate to postpone a stack test, once it has been scheduled, or suspend a stack test, once it has commenced, and if so, under what circumstances?

Answer: Refer to §6 (STOPPAGES) and §7 (POSTPONEMENTS) in the EPA's National Stack Testing Guidance (CLEAN AIR ACT NATIONAL STACK TESTING GUIDANCE (epa.gov)) and, if possible, immediately contact DEP's source test reviewer to determine the appropriate course of action. Proceeding without obtaining pre-approval on the course of action from the source test reviewer may negatively impact the acceptability of the test results. All data (preliminary data, process and sampling data, logs, notes, etc.) collected while the testing contractor was onsite to conduct the test must be preserved and be provided to DEP in the test report.

It is **acceptable** to postpone a scheduled test or suspend a test run in progress if the discontinuation is due to a Force Majeure Event and/or unsafe conditions. If the test is underway, every effort should be made to complete the test run.

It is **unacceptable** to postpone a scheduled test or suspend a test run in progress if the discontinuation is due to the source not being able to comply with an emission limit, not being able to verify an existing emission factor, or not being able to comply with a control device performance standard. DEP must be provided written documentation explaining the reasons for the postponement or stoppage, and any data collected prior to the stoppage. DEP will review the documentation and all available source test data to determine if a violation occurred. Any credible evidence may be used to demonstrate non-compliance.

Question 18: If the results of testing exceed the emission standard, should submission of the results be delayed until a retest is conducted?

Answer: No. Notify the DEP regional office immediately and submit all results within 60 days of the completion of testing. Indicate in the test report whether the facility believes the results are accurate and representative. An explanation of the possible causes for the apparent exceedance should also be included along with the intended corrective action. If the facility questions the validity of the results, a thorough explanation of their reasons should be included. Once a retest is conducted, note on the cover of the test report that it is a RETEST.

Question 19: What should be done when the methane/ethane concentrations are greater than the total hydrocarbon (THC) emissions, when calculating the non-methane/ethane hydrocarbons (NMEHC) by difference?

Answer: If the NMEHC result is between zero and -10 ppm, then report the results as zero. If the NMEHC result is more negative than -10 ppm, the results are unacceptable and may not be used. In this latter case, the test should be repeated using a different methodology, after consultation with Source Testing. Directly measuring the NMEHC is the preferred approach when the methane/ethane content is similar in magnitude to the THC concentration. This is common for internal combustion (IC) engine testing.

Question 20: Is Method 316 acceptable for the determination of formaldehyde (CH2O)?

Answer: Method 316 is only acceptable for testing of sources in the mineral wool and wool fiberglass industries. The method was developed by industry, not the US EPA, and because the latter does not provide technical support for this method, it is <u>unacceptable</u> for all other source categories. If the method is listed in a federal subpart, it may be acceptable (subject to approval by the Administrator) to determine compliance with emission standards in that specific subpart, but should be the promulgated method of last resort, if other options exist. In this case, justify in the test protocol why another method cannot be used. There is one notable exception: Method 316 may be used, if the emission standard was established using Method 316 test data, collected for the specific source(s) to be tested.

Question 21: May acetaldehyde (C_2H_4O), methanol (CH_3OH), or ammonia (NH_3) be used as surrogates for formaldehyde (CH_2O) to meet the QA Spike criteria in §8.6.2 of EPA Method 320?

Answer: No. There is no suitable surrogate that would be representative. An acceptable surrogate would need to have similar reactivity, boiling point, solubility, and the analysis must utilize the same spectral region as CH_2O for the measurements and quality assurance (QA), to account for spectral interferences. Use of a surrogate when measuring formaldehyde with Fourier-transform infrared spectroscopy

(FTIR) is unacceptable. Previous approvals by DEP to use a surrogate for formaldehyde are rescinded.

Question 22: May Alternative Test Method 106 (ALT-106) be used, in lieu of EPA Method 18 and EPA Method 25A, to directly measure volatile organic compounds (VOCs)?

Answer: ALT-106 may only be used for spark ignition internal combustion engines (SI ICE), subject to 40 CFR 60 (NSPS) Subpart JJJJ, when "…using a GC to separate and measure methane and ethane, followed by GC back-flush procedures to measure NMEOC in post-combustion emissions…", provided that all applicable caveats in ALT-106 are met. Additionally, "[t]his approval does not include using the GC to separate and measure methane, ethane and NMEHC at inlet locations for the purpose of determining destruction efficiency."

Question 23: May EPA Method 6C be used, if required to perform a stack test to demonstrate compliance with a sulfur oxides emission restriction (SO_x expressed as SO_2)?

Answer: No. EPA Method 6C only measures sulfur dioxide, which for some sources may not equal the sulfur oxides (SO_x) emissions. To demonstrate compliance with a SO_x limit, a test method that accounts for sulfur trioxide (SO_3), sulfuric acid mist (H_2SO_4), and sulfur dioxide (SO_2) is required. The best option is CTM-013 because it has elevated probe/filter temperatures and uses a coil condenser to strip out moisture. The final test results from the SO_x method are then expressed in terms of SO_2, much like total hydrocarbons are expressed in terms of propane (C_3H_8).

Question 24: How is testing of batch processes to be conducted if a federal subpart doesn't apply?

Answer: Test in in accordance with (a) and, (b) or (c) below:

a) Operating Conditions During Testing
   1) When determining compliance with VOC DE standard, operate the source(s) and control device(s) as discussed in Question 12.
   2) When determining compliance with an average emission standard, operate the source(s) and control device(s) as discussed in Question 14 (MROC).
   3) When determining compliance with a maximum emission standard, operate the source(s) and control device(s) under maximum operating conditions. The material feed rate and/or production rate should be selected to maximize the emissions.

b) Isokinetic Sampling
   Conduct the testing is accordance with 40 CFR 63.1511(b)(3). Each of the three runs must encompass the entire batch. If the batch is less than 60 minutes, testing must encompass an integral number of batches per run such that the minimum sampling time per run is 60 minutes. For long batches (greater than 8 hours), the sampling time per run is subject to pre-approval by DEP.

c) Non-Isokinetic Sampling
   The following requirements must be met, depending on the objective of the test:

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1) If the objective of the testing is to determine the **maximum** pollutant emissions during the batch. An emissions profile (concentration vs. time) must be developed, during the first run. Determine the mass emission rate (lbs./hour) for each hour of the batch cycle and identify the minimum 3-hour period of maximum (or peak) emissions. During the subsequent two test runs, you are not required to sample emissions outside that 3-hour period of maximum (or peak) emissions.

2) If the objective of the testing is to determine the **average** pollutant emissions during the batch. Each test run must encompass the entire batch. If the batch is less than 60 minutes, testing must encompass an integral number of batches per run such that the minimum sampling time per run is 60 minutes. For long batches (greater than 8 hours), the sampling time per run is subject to pre-approval by DEP.

3) Record the following (if confidentiality is a concern, refer to Question 1):

    a. the type of feed and product
    b. the batch cycle time
    c. the total elapsed time from the start to the completion of the batch cycle
    d. the operating temperature of the affected source, at least once every hour from the start to the completion of the batch cycle or at least every fifteen minutes, if a 3-hour minimum period of maximum (or peak)
    e. the total batch weight from the start to the completion of the batch cycle
    f. rated feed and production capacity