

SES Qualified Source Testing Individual Exams
Frequently Asked Questions
(revised January 2017)

1. Why has SES implemented a QSTI Program?

Some of the end users of stack test results, federal and State regulatory agencies in particular, are considering source testing company accreditation programs to help ensure the quality of emissions measurement data. Anticipating that such programs will rely on verifying the abilities of individuals involved in source testing, the SES membership approved and developed the SES QSTI program as a voluntary program for our members to demonstrate knowledge and experience with test procedures.

2. Is SES QSTI/QSTO Qualification Required?

The ASTM Standard D7036-04 specifies that individuals be qualified through exams and experience that demonstrate knowledge of methods and basic field testing principles. The SES QSTI is one way to satisfy that standard as the SES QSTI exams are designed to cover the areas of competence and basic methods described in the ASTM standard..

3. Why should I become qualified now?

To advance your professional credentials in emissions testing and address potential future individual certification and company accreditation needs.

4. Do I have to pass more than one exam to receive an SES QSTI certificate?

No. The SES QSTI review committee will issue you a certificate for each method group exam you pass and upon review and approval of your completed application. There was discussion during development of the program to require successful completion of a basics exam plus a specific methods group exam before SES would issue a certificate. This step was considered as a way to address company accreditation needs; however, the scope of the SES QSTI program should be limited to demonstrating individual qualifications and not try to anticipate or define company accreditation requirements. In addition, the SES QSTI exams include questions on basic source testing procedures in each exam. As future accreditation programs develop and needs are more clearly defined, individuals can always provide SES QSTI certificates for the multiple exams in verifying the qualifications needed for any specific accreditation program.

5. How much will the exam cost?

Please check the Eastern Technical Associates website for current exam fees at www.instack.com. Please check Castle Worldwide website for current online exam fees at <https://castleworldwide.com/Connect/SES>.

6. Where will the exam be offered?

At any of Eastern Technical Associates= national smoke school locations or you may arrange for a proctor. See www.instack.com for further information. Information for on-line exams available by Castle Worldwide can be found at <https://www.castleworldwide.com/cww/take-a-test/entry/source-evaluation-society>.

7. Who developed and validated the questions?

The SES QSTI/QSTO Program Committee is responsible for developing and maintaining the questions used in each method group exam. In addition to the internal method group exam development, SES solicits questions from the SES members, from the U.S. EPA and from outside

sources, The SES QSTI/QSTO Committee continually reviews and vets questions for the exams.

8. I reside and work outside the United States. The SES Qualification Application requires my signature to be notarized. Is it OK to have it notarized by a notary from my country?

You may use a notary from within your country. Please be sure your notary provide his or her license number and expiration date along with the appropriate stamp or seal.

Instead of a notary, you may have your signature to an application witnessed (in person) by a current Officer or Member of the Board of Directors of SES.

9. I am filling out the SES QSTI/QSTO Application for SES Emissions Tester Qualification Examination. In the Professional Development section, how should I list conferences and workshops that I attended and/or was a speaker, instructor or co-author?

For conferences and workshops you attended, provide a short list of those you feel are most relevant to stack testing qualification (name of conference/workshop, city, state/province, country, date).

For those occasions where you served as a presenter, instructor or co-author, list these like a publication citation (i.e., authors/coauthors, title of the presentation or course, conference/workshop name, city, state/province, date). This would be the appropriate format also for any published papers (i.e., in conference proceedings or in a journal). List as many as you think are relevant.

10. The new SES QSTI/QSTO Application requires relevant Safety Training information. Most of the safety training I have received has been onsite at the client location. Is this okay to list?

Yes. List each location, date, and the type of safety training you received. Also list any other safety training you may have received, such as OSHA, HAZWOPER, etc., if applicable.

11. What do I need to include with my SES QSTI/QSTO Application?

Once you receive notification about your exam(s) score, and you decide to pursue your QSTI/QSTO qualification certification, the next step in the qualification process is to submit an application. (Please note that each exam stands alone, i.e., you do not need to take and pass more than one exam in order to apply for your QSTI/QSTO qualification certificate.)

You can find the application on the SES website at www.sesnews.org under the link for the "SES QSTI/QSTO Program". As part of the application, you must complete the project experience section. You must submit descriptions of at least two field test projects in which you were involved in the conduct of one or more of the methods included in each exam group for which you are applying for a certificate. The QSTI/QSTO Review Committee has provided two examples for your use. The components of these examples coincide with those outlined in the SES application form. You may find these project description examples at www.sesnews.org under the link for the "SES QSTI/QSTO Program".

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Once you have completed your application, you may scan and email your application to tf_lowe@yahoo.com (which is the preferred and faster method) or mail your application to SES, P. O. Box 12124, Research Triangle Park, NC 27709-2124.

Along with the application, you must secure at least three recommendations. At least two of the recommendations should be from people outside the place of employment, if possible. **Please note** that the SES QSTI/QSTO Review Committee has made available a standardized form for

applicants and their recommendation sources to use as an option to formal letters of recommendation. (You can find this form on the SES web site at www.sesnews.org under the link for the "SES QSTI/QSTO Program".) The recommendations should be sent directly to Gail Westlin by the person writing the reference. The recommendations may be sent by email (tf_lowe@yahoo.com) (*which is the preferred and faster method*) or by mail at the SES address listed above.

12. I have a resume which lists my employment history and summarizes experience. Can I just attach that to my application to support the experience requirement?

You need to complete all of the application forms and we strongly recommend that you not attach resumes or test reports in lieu of entering information on application. Generally, personnel or proposal resumes do not contain the specific details needed to demonstrate experience in each of the experience areas. Further, the SES QSTI review board is not equipped to handle sensitive and potentially confidential business information as might be contained in test reports. Simply attaching your resume outlining your years of employment and experience or site-specific test reports will not satisfy this application requirement. Instead, you need to write information on your application that clearly *demonstrates* your experience in each of the applicable areas as listed on the second page of the application plus those listed under Demonstrated Skills (see checklist below).

Simply saying you have experience is generally not sufficient. For example, to demonstrate experience in Procedures Compliance, you should provide specific examples, such as internal or external technical systems audits, external performance audits, or State observed tests, which demonstrate that you followed the procedures required in the test methods and protocols. Those descriptions should clearly identify your roles in those activities, your abilities to solve problems, and the quality of the results. Since reports may be accepted by agencies without tests being observed, simply saying many reports were accepted by agencies does not necessarily demonstrate that procedures were followed.

Experience checklist (give specific examples to clearly demonstrate your level of experience in each area; be sure to indicate your direct role, why you chose specific approaches, how you accomplished activities, etc.):

- Test Methods (methods with which you have experience)
- Calibration/preparation/packing (calibration equipment, procedures, pre-test activities)
- Set-up at test site (logistics, challenges, best practices)
- Sample Analysis (lab interface, analytical equipment, sample preparation, selection of methods for purpose, interferences, detection limits vs. sampling times, validation, etc.)
- Procedure Compliance (test protocols, SSTPs, TSAs, SOPs, external audits, etc.)
- Data Reduction (calculations, special corrections, nondetects, QA/data quality objectives, etc.)
- Troubleshooting (equipment malfunction, delays, sampling locations, interferences, calibration, data acquisition, etc.)
- Training (education, classes, seminars, workshops, conferences, committees, professional societies; experience as instructor)
- Equipment Operation/Data Recording (types of equipment, meter boxes, CEMS, data logging/acquisition, etc.)
- Sample Recovery/handling/custody (procedures, reagents, storage, shipping, DOT, hold times, sign-off, etc.)
- QA/QC (QAPPs, SOPs, QA/QC samples, planning, audits, organization, validation)
- Reporting (types of reports, scope and purpose, use of templates, publications, etc.)
- Safety Training (safety seminars, PPE, workshops, tailgate meetings, certifications, application to adverse situations, HAZWOPR, refinery safety, confined spaces, DOT shipping, EHS compliance, site-specific safety orientations, etc.)

- Critical thinking (atypical sampling requirements, data interpretation, engineering analysis, etc.)
- Verbal & written communication skills (publications, reports, oral presentations, negotiations, etc.)
- Technical/science skills (math, engineering, chemistry, mechanics, electrical, electronics, etc.)
- Selection and knowledge of test methods and their application and limitations (regulations, deviations, modifications, detection limits, interferences, etc.)
- Selection, calibration, setup, use and operation of testing equipment for different applications and conditions (test objectives, measurements, location elevation/access, stack gas characteristics, weather, safety, etc.)
- Source types and characteristic sampling conditions and challenges (process types, flows, temperatures, pressures, concentrations, variability, etc.)
- Sample analysis and special considerations for different applications (lab interface, analytical equipment, sample preparation, selection of methods for purpose, interferences, detection limits vs. sampling times, validation, etc.).
- Test method modifications and deviations needed for different applications (high or low concentrations, interferences, pressure, etc.).
- Data quality metrics and implications (QAOs, DQOs, blanks, audit samples, precision, accuracy, bias, statistical analysis, etc.).
- EXAMPLES OF THE PROJECT EXPERIENCE PORTION OF THE APPLICATION ARE AVAILABLE ON THE WEBSITE. PLEASE REFER TO THESE EXAMPLES FOR HELP IN THIS AREA.