

Test Methods Covered Under Each Methods Group Exam, and Reference Materials Allowed During Exam Sessions

SES offers 50-question exams for each of six methods groups. Candidates must answer at least 40 questions correctly for a passing grade and passing grades are valid for five years. The individual must keep track of exam expiration dates and arrange to re-take their exam(s).

The SES offers exams for the six methods groups as listed below:

Group One Exam (first available March 2004, latest update in 2021): **Manual Gas Volume and Flow Measurements and Isokinetic Particulate Sampling Methods** to include: U.S. EPA Methods: 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 2H, 3, 3B, 4, 5, 5A, 5B, 5D, 5E, 5F, 5I, 17, 19, 201A and 202, 40 CFR part 60.8(f), 40 CFR part 63.7(e)(3), and the SES Exam Guideline (<http://www.sesnews.org/GuideQSTIExamSuccessv4.rtf>).

Group 1A Exam (first available March 2013, latest update in 2016): **Stack Gas Flow Rate Measurements Sampling Methods** to include: Methods 1, 2, 2A, 2C, 2D, 2F, 2G, 2H, 3, 3B, 4 (including references to Method 5 DGM calibration procedures), 19, 40 CFR part 60.8(f), 40 CFR part 63.7(e)(3), and the SES Exam Guideline (<http://www.sesnews.org/GuideQSTIExamSuccessv4.rtf>).

Group Two Exam (first available March 2004, latest update in 2021): **Manual Gaseous Pollutants Source Sampling Methods** to include: Methods 1-4, 3B, 6, 6A, 6B, 7, 7C, 7D, 8, 11, 13A, 13B, 15A, 16A, 19, 26, 26A, 202, 40 CFR part 60.8(f), 40 CFR part 63.7(e)(3), and the SES Exam Guideline (<http://www.sesnews.org/GuideQSTIExamSuccessv4.rtf>).

Group Three Exam (first available March 2005, latest update in 2021): **Gaseous Pollutants Instrumental Methods** to include: Methods 1-4, 3A, 6C, 7E, 10, 10B, 20 and 25A (Methods 3A, 6C, 7E, 19 and 20, as revised April 28, 2006). Also included are CEMS Performance Specifications (PS) 2, PS3, PS4, PS4A, PS5, PS6, PS7, PS8, and PS15, the CEMS RA requirements of part 75 including appendices A, B, and E, 40 CFR part 60.8(f), 40 CFR part 63.7(e)(3), and the SES Exam Guideline (<http://www.sesnews.org/GuideQSTIExamSuccessv4.rtf>) and U.S. EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (Revised May 2012), EPA 600/R-23/531, sections 2.1.1 – 2.1.3, and the fundamental procedures, relationships, and methods described above.

Group Four Exam (first available March 2007, latest update in 2021): **Hazardous Metals Measurement Methods** to include: 1-4, 12, 19, 29, 30B, 101, 101A, 102, and ASTM D6784-02 (The ASTM Method may be purchased from ASTM at <http://www.astm.org>), 40 CFR part 60.8(f), 40 CFR part 63.7(e)(3), and the SES Exam Guideline (<http://www.sesnews.org/GuideQSTIExamSuccessv4.rtf>).

Group Five Exam (first available March 4, 2012, latest update in 2021): **Part 75 CEMS RATA Testing** to include: sampling measurements and relative accuracy determinations are as required by Part 75. Methods and other supporting materials covered in this Exam will be Methods 1- 4,

5/29/2023

(including but not limited to Methods 2F, 2G, 2H, and 3B), 3A, 6C, and 7E. Part 75 Appendix A, Sections 3, 6, and 7; and Sections 3 and 8 of the Part 75 Emissions Monitoring Policy Manual. See also related sections in 40 CFR part 60, Appendix B, Performance Specification 2 and the U.S. EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (Revised May 2012), EPA 600/R-23/531, sections 2.1.1 – 2.1.3. See also the SES Exam Guideline (<http://www.sesnews.org/GuideQSTIExamSuccessv4.rtf>).

Structure and Content of the Six Methods Groups Exams

Each of the exams will include some questions addressing basic principles of source testing including sample transport and handling, proportional and representative sampling, basic calculations, common communications issues between laboratories and field testers, and basics of reporting including corrections for standard conditions and excess air.

The Source Evaluation Society designed the Methods Group exams to test candidates on their knowledge of the technical requirements and specifications of EPA and other related test methods. The exams also test the understanding of the implementation of those methods. Relevant implementation issues include general industrial process characteristics and operations; regulatory requirements related to air emissions compliance testing (particularly EPA regulations); and fundamental gas relationships (e.g., temperature, dilution, and moisture corrections).

The SES believes that a test candidate must demonstrate a depth and breadth of knowledge in any source testing situation. This knowledge is relevant to the success of a source testing project including evaluating the suitability of a test site for accessibility purposes, completing and verifying emissions calculations, preparing effective compliance test reports, and assessing emissions measurement data for process optimization purposes. Each SES Methods Group exam includes questions that require understanding of these broader principles and practices.

For example, a candidate can expect questions on the following topics in any of the six methods group exams:

- Regulatory definitions, the basic structure of compliance tests, and test plan preparation requirements as outlined in the general provisions of 40 CFR parts 60 and 63.
- Fundamental gas and flow relationships that are derived from EPA Methods 1 through 4.
- Dilution and moisture correction relationships, as described in EPA Methods 3B and 19 for example.

Reference materials allowed during exam sessions

Candidates may bring relevant printed reference materials to the exam session including copies of test methods, standard practices guidelines, and typed or hand-written procedural notes. Other written materials allowed include QA Manuals, engineering manuals, calculation sheets with or without handwritten notes or reference tabs, or other technical reference materials, and pencils or pens.

5/29/2023

The candidate sitting for a LOP (live online proctored) exams will use a laptop as described elsewhere on the website under LOP exam procedures. Candidates sitting for in-person proctored exams may not use a laptop computer, tablet, or other communications or programmable device.

For either exam format, the candidate may NOT use a personal calculator, mobile/smart phone, or other electronic communications device during the exam session. Instead, the candidate must use the calculator provided with the LOP (live online proctored) software or the multifunctional calculator provided by the proctor for in-person exams sessions.