



INSPECTION • TESTING • CERTIFICATION

ISO 9001:2008 Certified

CANDIDATE INFORMATION BULLETIN for CERTIFICATION EXAMINATIONS

- ✓ **Medical Gas Maintenance**
- ✓ **Medical Gas Systems Generalists**



Table of Contents

I. GENERAL INFORMATION

About NITC
About NITC's Medical Gas Systems Personnel Certification Program
Examination Development
Application Procedures
Table of Fees
Examination Scheduling for Groups
Computer-Based Testing Information
Examination Scores
Examination Site Information
Special Requests for Taking The Examination
NITC No-Show, Cancellation and Refund Policy
Question Comment/Challenge Procedure
Information Release Policy
Appeals Procedure
Issuance of Wall Certificates and Certification Cards
How to Obtain the NITC Rules and Procedures Document

II. MEDICAL GAS MAINTENANCE

Scope Of Work
Examination Qualification Requirements
About The Examination (Content Outline)

III. MEDICAL GAS SYSTEMS GENERALISTS

Scope Of Work
Examination Qualification Requirements
About The Examination (Content Outline)

Important note to examination candidates:

*The information contained in this document is important.
Please be sure to read it carefully.*



I. GENERAL INFORMATION

STATEMENT OF PURPOSE

The purpose of the NITC Personnel Certification Program is to advance the profession of certain crafts, inspectors and businesses in the construction industry by providing (a) a mechanism by which individuals can demonstrate their knowledge of model codes, standards, industry practices, and (b) a mechanism by which stakeholders in the construction industry can readily assess a minimum level of competency for such categories.

NITC is non-discriminatory in accepting applications and issuing certifications to candidates in regards to membership in any trade, association, union, etc., and is in compliance with Federal and State ADA regulations. Since NITC's work is highly important to the construction industry as well as the public at large, NITC has devised processes to insure that it practices impartiality, manages conflict of interest issues, and ensures objectivity in carrying out its certification activities. For more information see [NITC's Rules and Procedures Manual](#).

ABOUT NITC

National Inspection Testing Certification (NITC) is a third-party provider of certification services to the Piping Industry. NITC tests and certifies personnel in the Plumbing, Piping, HVACR and Related Piping Industries. NITC is ISO 9001:2008 certified and offers a large number of personnel certifications that include but are not limited to Journey and Mastery Levels, Medical Gas, IAPMO Voluntary Plumbing and Mechanical Inspector, and assorted City, County and State Government requirements. NITC also specializes in Test Development and Test Administration.

ABOUT NITC'S MEDICAL GAS SYSTEMS PERSONNEL CERTIFICATION PROGRAM

For many years the certification of medical gas systems personnel was voluntary except where required by an employer or by a local jurisdiction. However, new government and industry requires that medical gas systems personnel document their qualifications through written examination and/or practical testing. NITC provides medical gas systems personnel certification which meets the needs of the industry, while holding to the highest standards of modern test practice.

Our medical gas certification program is nationally recognized and is the result of years of effort by experts from the medical gas industry. The subject matter experts who participated in the development of our certifications have many thousands of hours of experience in the installation of medical gas systems. The goal of these experts is improving the safety of those who come into contact with medical gas and vacuum equipment as either industry workers, or consumers of medical care.

EXAMINATION DEVELOPMENT

The first step in the development of an objective test is to identify the knowledge necessary for the certification holder. In the case of medical gas systems personnel this knowledge was identified by a team of industry experts* assembled by the American Society of Sanitary Engineering (ASSE). ASSE's meeting of industry experts resulted in the publication of **ASSE Series 6000, Professional Qualifications Standard for Medical Gas Systems Personnel**, an American National Standard (ANSI).** **The ASSE Series 6000** is based on the requirements of NFPA 99 Health Care Facilities Code which covers requirements for health care and fire safety typically found in hospitals, ambulatory care centers, clinics, medical and dental offices, nursing homes, and limited care facilities. **The ASSE Series 6000** includes standards for medical gas personnel including Vacuum System Generalists, Installers, Inspectors, Verifiers, Maintenance Personnel, and Instructors, and for Bulk System Installers and Instructors.

Using the knowledge categories identified in the **ASSE 6000 Series** NITC developed an industry survey that was distributed to a representative number of medical gas systems personnel from each specialty. The results validated the accuracy and completeness of the knowledge recommended by the ASSE group of experts. Test content specifications and test blueprints were then generated and, before final release, the resulting test blueprints were reviewed and approved by focus groups of highly qualified medical gas subject matter experts. The passing scores were also determined by these subject matter experts using psychometrically accepted standard-setting methodology.

*See **ASSE Series 6000, Professional Qualifications Standard for Medical Gas Systems Personnel** for a list of the subject matter experts (SMEs) who participated in the development of the standards.

****Background: The ASSE Standards**

The **ASSE Series 6000, Professional Qualifications Standard for Medical Gas Systems Personnel** is an ANSI standard developed using a consensus based process. ASSE is dedicated to the preservation of public health and safety through "Prevention Rather Than Cure." The standards were developed to allow regulatory officials and states to have uniform minimum requirements for qualified Medical Gas Systems Installers, Medical Gas Systems Inspectors, Medical Gas Systems Verifiers, and Medical Gas Systems Instructors. In addition, the standards were developed to give uniform requirements for third-party certifiers (such as NITC) so that individuals can be qualified to install, inspect, verify or teach classes on medical gas and vacuum systems. The ASSE standards were promulgated in accordance with procedures developed by ANSI. This included the involvement of stakeholders and the opportunity for stakeholder input.

APPLICATION PROCEDURES

Candidates must complete an application in advance and return it to the NITC office. In addition to information that verifies eligibility, the application contains a code of conduct that certified persons must abide by and the regulations for suspension or withdrawal of the certification. All fees must be paid before results are released.

TABLE OF EXAMINATION FEES

INITIAL CERTIFICATION

Certification examination with a proctor (Group processing may be applied)	\$116. ⁰⁰
Computer-based Certification examination with a proctor (Group processing may be applied)	\$116. ⁰⁰
Computer-based multiple-choice examination at a PSI center (Includes Processing fee of \$25)	\$158. ⁰⁰
RETEST multiple-choice examination (Group processing fees may be applied)	\$116. ⁰⁰
RETEST computer-based multiple-choice examination with a proctor (Group processing fees may be applied)	\$116. ⁰⁰
RETEST computer-based multiple-choice examination at a PSI center (Includes Processing fee of \$25)	\$158. ⁰⁰

RECERTIFICATION

Recertification Test online at TestTrac.com	\$49.00
---	---------

OTHER FEES

For duplicate of the wall certificate	\$ 15. ⁰⁰
For duplicate of the wallet-sized photo ID card	\$ 15. ⁰⁰

All fees due must be submitted with a completed application and all fees must be paid before results are released.

EXAMINATION SCHEDULING FOR GROUPS

Examinations may be scheduled and administered at specific times, dates and locations as requested by NITC clients. To request an examination for a group of ten (10) or more candidates must submit an examination request form to NITC at least three (3) weeks in advance along with the completed applications. The Instructors name and certification number must be included on the request form.

For groups of less than ten (10) candidates a processing fee will be added. See Table of Fees. All fees must be paid prior to the examination and processing fees are non-refundable. (See NITC's No-show, Cancellation, and Refund Policy.) It is the responsibility of the instructor or the requesting entity to notify each applicant of the scheduled examination.

Similar requirements apply for scheduling group sessions for recertification examinations, except the minimum group size is eight (8) candidates. For groups of less than eight additional processing fees apply.

See the Table of Fees. Please contact NITC for more information about examination scheduling.

COMPUTER-BASED TESTING INFORMATION

Computer-based testing at PSI centers is available for individuals who do not choose to attend the examination scheduled by their training agency at the conclusion of the course. There are more than 340 test center network sites throughout the United States where the certification examination or recertification examination can be taken on a date, time, and place that is convenient for the candidate. The content of a computer-based multiple-choice examination is identical to that of the pencil and paper multiple-choice examination.

To locate a PSI TESTING center, go to <https://candidate.psiexams.com/testdate/testdate.jsp> or go to www.nationalitc.com. An email address must be included on this form. Login information for scheduling the examination date and time will be provided via email from Testrac/PSI Registration. **Registration Form will not be processed until payment has been received.**

For any examination scheduled at a PSI testing center, cancellation and rescheduling must be made at least 48 hours prior to the assigned time or date or a rescheduling fee will be assessed.

EXAMINATION SCORES

For computer-based examinations, results are provided to the examinee at the completion of the examination. For NITC-proctored paper-and-pencil examinations results will be sent within 30 days to the training entity or instructor originally arranging the test event.

Important note about NITC pencil paper examinations:

The pencil paper examinations are electronically scored after being returned to the offices of NITC it is important to record all on the scannable answer sheet provided at the testing site. Answers marked in any test booklet will NOT be counted toward a candidate's score.

EXAMINATION SITE INFORMATION

Candidates will be required to sign a test site roster and show photo identification to the proctor at the test site on the day of the examination administration. Acceptable forms of photo identification are a passport, a government-issued driver's license or state ID, or a work identification card with photo. Candidates without appropriate identification documents will NOT be admitted to take the certification examination.

All electronic devices are prohibited. **No PDAs, cellular telephones, or any other types of devices that record or send data are allowed to be used during the examination.**

CLOSED BOOK EXAMINATIONS: It is suggested that examination candidates bring a hand held pencil sharpener and an eraser. No reference books, standards, code books, handbooks, computers, notebooks, audio/visual devices, recorders, illustrated books, notes, drawings or papers of any kind will be allowed in the testing facility.

OPEN BOOK EXAMINATIONS: If you will be taking a computer-based OPEN book examination, writing instruments will not be permitted. Please bring only the permitted references. No handbooks, computers, notebooks, audio/visual devices, recorders, illustrated books, notes, drawings or papers of any kind will be allowed in the testing facility. Remove all extraneous papers from reference books prior to entering the testing facility.

SPECIAL REQUESTS FOR TAKING THE EXAMINATION

Requests for special/emergency examinations will be accommodated by NITC if possible. Candidates who have a disability which restricts their ability to take an examination under the standard conditions may request special testing arrangements. Such requests must accompany the application, and must be received by the normal application closing date. The request must indicate the nature of the disability and the special accommodations needed. Verification by a licensed medical professional is required for both the disability, and the need for special accommodations.

Additional information on special accommodations can be found in Section XVI of the [NITC's Rules and Procedures Manual](#), available for download from our web site at www.nationalitc.com.

NITC NO-SHOW, CANCELLATION and REFUND POLICY

CREDITS: NITC will issue a credit to no shows, cancellations, etc. The credit, redeemable for six months, will be issued to the group or individual for the next available examination. It is the responsibility of the group or individual to keep track of their credit and its expiration date in six months.

Example: A group requested 30 examinations and only 27 candidates showed up. A credit for 3 candidates will be given to the group for the next examination within a six month period.

REFUNDS: Requests for refunds must be received in writing. Refunds will be given only upon approval from the Executive Vice President. Partial refunds will be \$55.00 on the one-hundred question examinations, and 50% of the fee for all other examinations. Full refunds will only be given as a result of uncontrollable events such as severe weather, airline flight cancellations, etc.

Candidates withdrawing or canceling after the deadline, or not sitting for the examination, will forfeit all application fees and will NOT receive a refund.

QUESTION COMMENT/CHALLENGE PROCEDURE

Challenge forms provided by the proctor may be used for both comments and question challenges. At the conclusion of the examination, a candidate may comment on the site, the process, or on any question. Comments and suggestions are always welcome. To challenge a question or questions, a candidate must request the question challenge form from the proctor; complete the form providing as many details as possible. The completed form must be turned in to the proctor before leaving the room. An examinee may file a question challenge at a later time as long as it is in writing, identifies the question being challenged, contains a separate and complete statement of each ground upon which the challenge is based, and is received by NITC not later than 30 days from the receipt of examination score. Additional details on the process are provided in [NITC's Rules and Procedures Manual](#), available at NITC's web site.

APPEALS PROCEDURE

Candidates may appeal the score of an examination. Appeals shall be filed in writing to the NITC office via U.S. Mail, facsimile, or E-mail no later than thirty (30) days from the date candidate receives the score. Appellants will be notified in writing of the decision by the certification committee.

Any examinee or interested party may file a complaint with NITC for problems that arise which are unrelated to the content of the examination. This would include issues related to the examination location and/or staff, proctor concerns, and such matters.

The complete procedures for appeals and/or complaints can be found in [NITC's Rules and Procedures Manual](#).

INFORMATION RELEASE POLICY

For computer-based examinations, results are provided to the examinee at the completion of the examination. For NITC-proctored paper-and-pencil examinations the results will be provided within 30 days to the examinee, training entity, or to the instructor who originally arranged the test event.

Except as outlined in this section, NITC will NOT release any information regarding a candidate's examination score or application to other entities, including employers and regulatory agencies.

The Name and State of residence of those persons holding a current certification will be posted on the NITC website. This service allows for verification of the status of persons involved in the installation, inspection and/or maintenance of medical gas and vacuum systems. A candidate's personal information will not be included on the NITC website.

ISSUANCE OF WALL CERTIFICATES AND CERTIFICATION CARDS

Upon successful completion of this certification examination, a certificate and a congratulations letter will be issued. This certification is valid for three (3) years from issuance. Certification holders are responsible for keeping their certification current. **NOTE: IN SOME CASES A WALL CERTIFICATE AND/OR WALLET CARD WILL BE ISSUED BY A CITY, COUNTY, STATE, INDUSTRY ASSOCIATION, OR UNION.**

HOW TO OBTAIN THE NITC RULES AND PROCEDURES DOCUMENT

The Medical Gas Installer Certification is governed by the [NITC's Rules and Procedures Manual](#). This document goes into greater detail on a number of the topics covered in this examination information bulletin. Topics covered include:

- Guidelines for Use of Certification Mark
- Re-issuance of Lost Certification Card
- Issuance of Certification Cards and Wall Certificates

- Proctor Information
- Exam Question Challenges, Appeals Procedure, Complaints
- Conflict of Interest and Confidentiality Statements
- Notification to Certified Personnel and Stakeholders of Updated and New Certifications
- Correction of Material / Technical Error in Examinations
- NITC ADA Policy
- NITC Certification Scheme Committee

Copies of [NITC's Rules and Procedures Manual](#) are available on the NITC website at www.nationalitc.com and also upon request from NITC Headquarters.

II. MEDICAL GAS MAINTENANCE

SCOPE OF WORK: MEDICAL GAS MAINTENANCE

A Medical Gas Systems Maintenance Personnel certification candidate is a qualified individual who can demonstrate competence within their scope and will be proficient in and experienced in the maintenance of medical gas and vacuum systems covered by the ASSE Series 6000 Standard. A qualified Medical Gas Maintenance worker may perform such maintenance tasks alone, or through the supervision of other individuals.

In addition to knowledge of product maintenance, a Medical Gas Maintenance worker is required to have a general knowledge of the applicable laws, codes, rules, listing agencies, and regulations from the federal, state, and local levels pertaining to medical gas and vacuum systems as well as knowledge of product performance, system and system component testing, documenting and recording, and medical gas terminology.

Medical gas systems and equipment covered in the ASSE Series 6000 Standard include health care facilities within the scope of NFPA 99, Health Care Facilities Code. Medical gas piping systems include vacuum piping.

EXAMINATION QUALIFICATION REQUIREMENTS

The candidate shall meet all the requirements of ASSE Standard 6040, Section 40-3.2. These include being employed or contracted by a health care facility, or actively engaged in working with medical gas systems, and having a minimum of one (1) year of documented practical experience in the maintenance of medical gas systems.

Certification shall also include the successful completion of a minimum 32-hour training course covering all facets of ASSE Standard 6040 and applicable sections of NFPA 99. Course shall be conducted by a Medical Gas Systems Instructor certified to ASSE 6050, and shall include a written and a practical examination.

This certification is administered in accordance with the American Society of Sanitary Engineers (ASSE) Series 6000. Copies of this standard may be obtained by contacting ASSE at (708) 995-3019, or at www.asse-plumbing.org.

ABOUT THE EXAMINATION

The medical gas maintenance personnel certification examination consists of a proctored, closed book, multiple-choice examination containing one hundred (100) test items. The instructor will also present “practical experience” during the course. A topical outline of the multiple-choice examination content is shown below.

Examination Name: Medical Gas Systems Maintenance Personnel Certification Examination

Official Examination References:

1. ASSE Standard Series 6000
2. NFPA 99, Health Care Facilities Code, 2015 Edition

Description: Closed book exam consisting of 100 multiple-choice questions

Passing grade: 75% (75 correct)

Total time allowed: two (2) hours

Percent of Exam	TOPIC
36%	01. MEDICAL GAS and VACUUM SOURCE SYSTEMS/EQUIPMENT
24%	02. MEDICAL GAS STATION OUTLETS/INLETS
4%	03. ALARM SYSTEMS
10%	04. GENERAL KNOWLEDGE REQUIREMENTS
19%	05. PERFORMANCE and RECORDKEEPING
7%	06. CYLINDER SAFETY

An NITC-approved proctor administers this examination. Candidates are notified of a pass or fail result in writing by NITC, the training agency, or by the association that requested the examination.

Candidates failing to achieve a passing score will be eligible for re-examination as soon as the next examination is scheduled. Candidates may re-take their examination at the NITC offices or at a PSI testing center. Re-examination fees are listed in Section I: [GENERAL INFORMATION](#).

RECERTIFICATION OF THIS CREDENTIAL

This certification is valid for three (3) years from issuance.

Recertification of this certification can be accomplished by successfully passing a multiple-choice open book examination within thirty days of the expiration date of certification. This examination contains forty questions which are based on the most current editions of the NFPA 99 and ASSE Series 6000 Standards/Codes.

Certified individuals, who have not renewed their certification within thirty days after the expiration date, must take the proctored one hundred question multiple-choice examination.

Important note about recertification:

This certification is valid for three (3) years from issuance.

Certification holders are responsible for keeping their certification current. NITC must be notified of any change in address. Changes may be made online, by telephone, or by mail.

Additional information is contained in this Candidate Bulletin in [Section IV. "RECERTIFYING YOUR NITC MEDICAL GAS CERTIFICATION."](#)

III. MEDICAL GAS SYSTEMS GENERALISTS

SCOPE OF WORK: MEDICAL GAS SYSTEMS GENERALISTS

A Medical Gas Systems Generalist certification candidate is any individual who meets the requirements of ASSE 6005. Eligible individuals include any person with an interest in medical gas and vacuum systems and equipment who has successfully completed the required twenty-four (24) hours of training covering all facets of piped medical gas and medical-surgical vacuum systems. ASSE 6005 provides general knowledge of medical gas and vacuum systems for the purpose of providing continuing education.

Medical gas systems and equipment covered in the ASSE Series 6000 Standard include health care facilities within the scope of NFPA 99 Standard for Health Care Facilities. Medical gas piping systems include vacuum piping.

EXAMINATION QUALIFICATION REQUIREMENTS

The candidate shall meet all the requirements of ASSE Standard 6005, Section 5-4.1. Certification shall include the successful completion of a minimum 24-hour training course including a written examination covering all facets of ASSE Standard 6005 and applicable sections of NFPA 99, and NFPA 55. Course instruction shall be conducted by a Medical Gas Systems Instructor certified to ASSE 6050.

This certification is administered in accordance with the American Society of Sanitary Engineers (ASSE) Series 6000. Copies of this standard may be obtained by contacting ASSE at (708) 995-3019 or at www.asse-plumbing.org.

ABOUT THE EXAMINATION

The Medical Gas Systems Generalist Certification Examination is based on information contained in the NFPA 99, NFPA 55 and the ASSE Series 6000, Standard #6005 section. It contains one hundred (100) test items. Candidates must answer seventy percent (70%) of the questions correctly to achieve a passing grade.

Examination Name: Medical Gas Systems Generalist Certification Examination

Official Exam References:

1. ASSE Series 6000 Standard
2. NFPA 99 Standard for Health Care Facilities, 2015 Edition

Description: Closed book exam consisting of 100 multiple-choice and true/false questions

Passing grade: 70% (70 correct)

Total time allowed: two (2) hours

Percent of Exam	TOPIC
19%	Central Supply Systems
7%	Definitions
13%	Distribution/Piping
11%	General Requirements
6%	Instrument Air Supply Systems
21%	Medical Gas & Vacuum Source Systems/Equipment
5%	Station Outlets/Inlets
8%	WAGD
10%	Warning Systems/Alarms

An NITC-approved proctor administers this examination. Candidates are notified of a pass or fail result in writing by NITC, the training agency, or by the association that requested the examination.

Candidates failing to achieve a passing score will be eligible for re-examination as soon as the next examination is scheduled. Candidates may re-take their examination at the NITC offices or at a PSI testing center. Re-examination fees are listed in Section I: [GENERAL INFORMATION](#).

IV. RECERTIFYING YOUR NITC MEDICAL GAS CERTIFICATION

Once the requirements outlined above are met, recertification can be accomplished by successfully passing a multiple-choice open book examination. The recertification examination contains forty questions based on the most current edition of the NFPA 99. Candidates must answer thirty-two (32) of the questions (80%) correctly on the examination to achieve a passing grade.

For a fee of \$49.00 the recertification exam can be taken online at www.testrac.com/nitc. A Testrac ID and PIN is required. Those can easily be obtained by going to www.testrac.com/nitc and selecting STEP 2, or by contacting the NITC office. Four (4) hours are allowed for the exam and results will be provided immediately at the completion of the exam.

Certified individuals who have not recertified within thirty days after the expiration date must begin over by paying the appropriate fee and taking the initial certification examination.

Certified individuals who fail the recertification exam twice may be required to attend a refresher course before being allowed a third attempt.

See table of fees in Section I: [GENERAL INFORMATION](#).