



ISO 9001:2008 Certified

***CANDIDATE INFORMATION
BULLETIN for CERTIFICATION EXAMINATIONS***

- ✓ **Medical Gas Installer**
- ✓ **Medical Gas Instructor**
- ✓ **Medical Gas Verifier**
- ✓ **Medical Gas Inspector**



Table of Contents

- I. **GENERAL INFORMATION**
 - About NITC
 - About NITC's Medical Gas Systems Personnel Certification Program
 - About the 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 INSTALLER**
 - Scope Of Work
 - Examination Qualification Requirements
 - About The Examination (Content Outline)
- III. **MEDICAL GAS INSTRUCTOR**
 - Scope Of Work
 - Examination Qualification Requirements
 - About The Examination (Content Outline)
- IV. **MEDICAL GAS VERIFIER**
 - Scope Of Work
 - Examination Qualification Requirements
 - About The Examination (Content Outline)
- V. **MEDICAL GAS INSPECTOR**
 - Scope Of Work
 - Examination Qualification Requirements
 - About The Examination (Content Outline)
- VI. **RECERTIFYING YOUR NITC MEDICAL GAS CERTIFICATION**

Important note to examination candidates:
*The information contained in this document is important.
Please be sure to read it carefully.*



I. GENERAL INFORMATION

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. NITC is non-discriminatory in accepting applications and issuing certifications to candidates without regard to membership in any trade, association, union, etc. NITC is in compliance with Federal and State ADA regulations.

ABOUT NITC'S MEDICAL GAS SYSTEMS PERSONNEL CERTIFICATION PROGRAM

For many years the certification of medical gas systems personnel has been a voluntary effort except where required by an employer or by the local jurisdiction. However, new government and industry requirements continue to emerge asking that medical gas systems personnel document their qualifications through written examination and/or practical testing. NITC is the clear leader in providing medical gas systems personnel certification which meets the needs of the industry, while holding to the highest standards of modern test practice.

The medical gas inspector 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 this certification represent many thousands of hours of experience in the installation of medical gas systems. The goal of these volunteers is improving the safety of those who come into contact with medical gas and vacuum equipment as either an industry worker, or as a consumer of medical care.

ABOUT THE 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 Standard 99 – Health Care Facilities 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 Specialists, 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 forward to the standards states, “The ASSE Standards Program systematically evaluated new technologies through formal requests and addresses the development and promulgation of performance and qualifications standards designed to safeguard public health and safety. “ 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)	\$113. ⁰⁰
Computer-based Certification examination with a proctor (Group processing may be applied)	\$113. ⁰⁰
Computer-based multiple-choice examination at a PSI center (Includes Processing fee of \$25)	\$138. ⁰⁰
Braze practical examination only (with NO retest on the multiple-choice portion) (Processing may be applied)	\$ 70. ¹⁵
Verifier multiple-choice and Practical Examination (Group processing may be applied)	\$350.00
RETEST multiple-choice examination (Group processing fees may be applied)	\$113. ⁰⁰
RETEST computer-based multiple-choice examination with a proctor (Group processing fees may be applied)	\$113. ⁰⁰
RETEST computer-based multiple-choice examination at a PSI center (Includes Processing fee of \$25)	\$138. ⁰⁰
RETEST Braze practical examination only (Group processing fees may be applied)	\$ 70. ¹⁵
Verifier RETEST multiple-choice examination (Group processing fees may be applied)	\$175.00
Verifier RETEST computer-based multiple-choice examination at a PSI center (Includes Processing fee of \$25)	\$200.00
Verifier Practical RETEST examination with a proctor (Group processing fees may be applied)	\$175.00
Braze re-qualifications (Vertical Upflow) (Processing may be applied)	\$ 46. ⁶⁵
Additional Cost for each Un-Cut Braze Coupon	\$ 18. ⁶⁵
Installer PSI test center cancellations and rescheduling fee (if cancellation occurs with less than 48 hours' notice)	\$ 40. ⁰⁰
Instructor PSI test center cancellations and rescheduling fee (if cancellation occurs with less than 48 hours' notice)	\$ 40. ⁰⁰
Verifier PSI test center cancellations and rescheduling fee (if cancellation occurs with less than 48 hours' notice)	\$ 47. ⁵⁰
Inspector PSI test center cancellations and rescheduling fee (if cancellation occurs with less than 48 hours' notice)	\$ 40. ⁰⁰

RECERTIFICATION

Braze continuity submittal - Mail-in	\$ 36. ⁶⁵
Braze continuity submittal - Online	\$ 25. ¹⁵
Medical Gas Recertification examination with a proctor (Group processing may be applied)	\$45.65
Medical Gas Computer-based Recertification examination with a proctor (Group processing may be applied)	\$45.65
Medical Gas Recertification test at a PSI center	\$80.50

GROUP PROCESSING and MISCELLANEOUS FEES

Processing fee for scheduled group Initial Certification examinations involving less than ten (10) examinees.	paper pencil examinations	\$250. ⁰⁰
	computer-based examinations	\$150. ⁰⁰
Processing fee for scheduled group RECERTIFICATION examinations involving less than eight (8) examinees.	paper pencil examinations	\$250. ⁰⁰
	computer-based examinations	\$150. ⁰⁰
Processing fee for Recertification examinations	7 Examinees	\$150. ⁰⁰
Processing fee for Recertification examinations	4-6 Examinees	\$200. ⁰⁰
Processing fee for Recertification examinations	3 Examinees	\$250. ⁰⁰
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 Tetrac/PSI Registration. **Registration Form will not be processed until payment has been received.**

For any examination scheduled 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.

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.

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. The complete NITC appeals procedure can be found in the NITC [NITC's Rules and Procedures Manual](#).

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
- Challenge of Questions and Appeals Procedure
- Conflict of Interest and Confidentiality Statements
- Notification to Certified Personnel and Stakeholders of Updated
- 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 INSTALLER/BRAZER

SCOPE OF WORK: MEDICAL GAS INSTALLER

A Medical Gas Installer certification candidate is a qualified individual who can demonstrate competence within their scope and will be proficient in and experienced in the installation of medical gas and vacuum systems covered by the ASSE 6000 standard. Installers include anyone who works on or installs piping or components, including brazers. A qualified Medical Gas Installer may perform these tasks alone, or through the supervision of other individuals.

In addition to knowledge of product installation, a Medical Gas Installer 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 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 have a minimum of four (4) years of documented practical experience in the installation of piping systems. Certification shall include the successful completion of a minimum 32-hour training course conducted by a Medical Gas Systems Instructor certified to ASSE 6050, and passing grades on (1) a multiple-choice examination covering all facets of ASSE Standard 6000, NFPA 99, and NFPA 55 and (2) a proctored practical (brazing) 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 (440) 835-7040, or at www.asse-plumbing.org.

ABOUT THE EXAMINATION

The medical gas installer/brazer certification examination consists of two portions. PART 1 is a proctored, closed book multiple-choice examination with one hundred (100) questions. PART 2 is a practical examination which involves brazing two coupons.

PART 1 – Multiple Choice Examination

The multiple-choice portion contains 100 questions. Candidates must correctly answer seventy-seven percent 77% of the questions to achieve a passing grade. The multiple-choice portion is based on information contained in the NFPA 99, NFPA 55, and the ASSE Series 6000 Standard. The questions are designed so that the average candidate will be able to

complete the examination within two hours. A content outline is provided below as an aid in preparing for this examination.

Examination Name: Medical Gas Installer/Brazer Certification Examination

Official Examination References:

1. ASSE Standard Series 6000-2006
2. NFPA 99 Standard for Health Care Facilities, 2005 Edition
3. NFPA 55 Compressed Gases and Cryogenic Fluids Code

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

Passing grade: 77% (77 correct)

Total time allowed: two (2) hours

Percent of Examination	Domain Area
16%	Product performance knowledge
26%	Product installation knowledge
18%	Testing System and System Components
14%	Conducting, documenting and recording inspections and tests
26%	General medical gas knowledge

An NITC-approved proctor administers the multiple-choice 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 on the multiple-choice and/or practical portion will be eligible for re-examination as soon as the next examination is scheduled by NITC. 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](#).

PART 2 – BRAZING

The brazing portion of the examination requires candidates to successfully pass a proctored practical examination, brazing joints in accordance with the American Society of Mechanical Engineers (ASME) Section IX, Welding and Brazing Qualifications Standard. The candidate will braze two joints of a horizontal coupling and two up-flow joints of a vertical coupling. The copper tube shall be 1 ½” NPS (Type “L”) and the coupling shall be 1 ½” standard “stop” coupling. The braze coupons are examined by American Welding Society (AWS) certified welding inspectors (CWI’s) according to the ASME Section IX, Welding and Brazing Qualifications Standard.

Brazing examinations must be taken at an approved welding/brazing testing facility. A Contractor or Manufacturer representative and an NITC authorized testing representative must witness the brazing portion at the approved test location. Candidates failing to achieve a passing score on PART 2 will be eligible for re-examination as soon as it can be scheduled.

For the brazing portion, in the event the examinee fails one portion of the braze examination, they will have six month to retest on the portion that they failed. Upon achieving a passing score for both brazes coupons; the effective date of certification will be the original union date. If a retest is not taken and/or passed, then both a complete brazing examination is required.

Both the multiple-choice and brazing portions of this examination and their continuities must be registered through NITC to maintain a valid certification.

RECERTIFICATION OF THIS CREDENTIAL

This certification is valid for three (3) years from issuance, as long as the brazing continuities are maintained through NITC. Recertification can be accomplished by successfully passing a proctored multiple-choice open book examination which contains forty questions based on the most current editions of the NFPA 99, NFPA 55 and ASSE Series 6000 Standards/Codes.

Certified individuals who have not recertified 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 VI. "RECERTIFYING YOUR NITC MEDICAL GAS CERTIFICATION."](#)

III. MEDICAL GAS INSTRUCTOR

SCOPE OF WORK: MEDICAL GAS INSTRUCTOR

Medical Gas Instructors train or teach installers, inspectors, verifiers and healthcare facility maintenance personnel regarding medical gas and vacuum distribution systems. A Medical Gas Instructor certification candidate is a qualified individual who can demonstrate competence within their scope and will be proficient in and experienced in teaching and in the installation of medical gas and vacuum systems covered by the ASSE 6000 standard.

In addition to teaching experience and knowledge of product installation, a Medical Gas Instructor 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 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

All Medical Gas Systems Instructor candidates shall possess a current Medical Gas Systems Installer certification compliant with ASSE Standard 6010. Read the Medical Gas Installer and Brazer Certification Candidate Bulletin for more information on how to obtain this certification.

Certification shall include the successful completion of a minimum 40-hour training course (Section 50-3.2.2) covering all facets of ASSE Standard 6010, 6020, 6030, 6040, NFPA 99, NFPA 50 or NFPA 55, and CGA M-1. The required training course shall be conducted by a Medical Gas Systems Instructor certified to ASSE 6050.

Instructor candidates shall also have a minimum of ten (10) years of documented experience in the installation of piping systems or a minimum of two (2) years of documented experience in the installation of medical gas and vacuum systems, and a minimum of two (2) years documented practical teaching experience+.

+Documented Practical Teaching Experience is defined by NITC as instructional work in a classroom or other formal setting in which the applicant has performed as the principal teacher (not an assistant or aide) in delivering lectures, directing seminars or by personal direction delivering information to students in some sort of formal, regulated and recognized educational setting or institution. Acceptable teaching experience must have included the use of teaching methods and tools such as a set curriculum, a syllabus, a schedule of lessons on the model of a school or college lesson plan; and regular testing and grading. Experience acceptable on its face includes teaching in public or private

schools, vocational programs, apprenticeship programs, and colleges or universities.

Because a large diversity of submissions of documented practical teaching experience, some not meeting the above guidelines, have been received by NITC from persons attempting to meet the two year requirement, NITC reserves the right to evaluate teaching experience on a case-by-case basis.

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 (440) 835-7040, or at www.asse-plumbing.org.

ABOUT THE EXAMINATION

The medical gas Instructor certification examination consists of a proctored, closed book multiple-choice examination with one hundred (100) questions. Candidates must correctly answer eighty-three percent 83% of the questions to achieve a passing grade. The examination is based on information contained in the NFPA 99, NFPA 55, CGA M-1, and the ASSE Series 6000 Standard. The questions are designed so that the average candidate will be able to complete the examination within two hours. A content outline is provided below as an aid in preparing for the examination.

Examination Name: Medical Gas Instructor Certification Examination

Official Examination References:

1. ASSE Standard Series 6000-2006
2. NFPA 99 Standard for Health Care Facilities, 2005 Edition
3. NFPA 55 Compressed Gases and Cryogenic Fluids Code
4. CGA M-1 Compressed Gas Assn Guide for Medical Gas Supply Systems at Consumer Sites

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

Passing grade: 83% (83 correct)

Total time allowed: two (2) hours

Percent of Examination	Domain Area
18%	Product performance knowledge
13%	Product installation knowledge
27%	System and system component testing knowledge
20%	Conducting, documenting and recording inspections and tests
22%	General medical gas knowledge

An NITC-approved proctor administers the multiple-choice 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 on the multiple-choice and/or practical portion will be eligible for re-examination as soon as the next examination is scheduled by NITC. 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, as long as the Instructor maintains a current Medical Gas Systems Installer certification compliant with ASSE Standard 6010. Recertification can be accomplished by successfully passing a proctored multiple-choice open book examination which contains forty questions based on the most current editions of the NFPA 99, NFPA 55 and ASSE Series 6000 Standards/Codes.

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

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

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.

IV. MEDICAL GAS VERIFIER

SCOPE OF WORK: MEDICAL GAS VERIFIER

A Medical Gas Verifier certification candidate is a qualified individual who can demonstrate competence within their scope and will be proficient in and experienced in the installation, inspection, and verification of medical gas and vacuum systems covered by the ASSE 6000 standard. Verifiers include any individual who tests and verifies the operation of medical gas and vacuum systems. A qualified Medical Gas Verifier may perform these tasks alone, or through the supervision of other individuals.

In addition to knowledge of product installation, inspection and verification, a Medical Gas Verifier 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 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 6030, Section 30-3.2. Certification shall include the successful completion of a minimum 32-hour training course, conducted by a Medical Gas Systems Instructor certified to ASSE 6050, and passing grades on written and practical examinations covering all facets of ASSE Standard 6030, NFPA 99-2005, NFPA 50 and NFPA 55, and CGA M-1.

Certification requirements also include having a minimum of two (2) years of documented practical experience in the verification of medical gas piping systems. Records substantiating the required experience or testimonial letters on company letterhead from employers are required. Testimonial letters must fully describe duties performed and dates employed, and must be accompanied by W-2 forms. Candidates are also required to have a current certificate of insurance, in the name of the individual or employing verification company, for general liability, completed operations and, as applicable, products liability insurance.

Please note: Verification of medical gas and vacuum pipeline systems is literally a matter of life and death! Do not apply for this certification unless you possess the necessary SKILLS, EXPERIENCE, and INSURANCE that will allow you to verify medical gas/ medical surgical vacuum systems to the highest level.

Falsification of any part of these requirements will result in disqualification of eligibility to take this certification, and /or suspension/revocation of your

certification if falsification is discovered after certification is issued. Falsification of required information may result in applicable civil or criminal prosecution.

NITC operates in conformance with the ISO/IEC 17024-2003 standard for personnel certification. This is an extremely rigid procedure. Exemptions for any reason other than the American Disabilities Act are not accepted.

ABOUT THE EXAMINATION

The medical gas verifier certification examination process consists of two components:

1. The first component of the examination contains one hundred twenty-six (126) multiple-choice questions. Candidates must correctly answer eighty percent 80% of the questions to achieve a passing grade. The questions are designed so that the average candidate will be able to complete the examination within two and one half hours. A content outline is provided in the Table below as an aid in preparing for the examination. (Closed book)
2. The second portion is a practical examination. Candidates must achieve a grade point accumulation of 216 of the possible 270 available points (80%). Candidates will be required to...
 - a. identify omitted or inappropriate configuration components relative to NFPA 99, 2005 design criteria in a graphically-depicted Medical Gas distribution system. Cite the specific text reference. (Open Book)
 - b. compose a test procedure appropriate to the depicted medical gas system construction project. (Open Book)
 - c. provide a description of each test procedure including the capability parameters of the test device to be used and the quantitative test results necessary to meet NFPA 99, 2005 minimum criteria (Open Book).

Examination Name: Medical Gas Verifier Certification Examination. This two part examination consists of a multiple-choice portion and a practical examination.

Official Examination References:

5. ASSE Standard Series 6000-2006
6. NFPA 99 Standard for Health Care Facilities, 2005 Edition
7. NFPA 55 Compressed Gases and Cryogenic Fluids Code
8. CGA M-1 Compressed Gas Association Guide for Medical Gas Supply Systems at Consumer Sites

Description: Closed book examination consisting of 126 multiple-choice questions and an open book practical examination consisting of interpretation of a Level 1 medical gas distribution network.

Passing grade: Multiple-choice: 80% (101 correct) Practical: 80% (216 accumulated points)

Total time allowed: Multiple-choice: two and one half (2-1/2) hours. Practical: 4 hours

Percent of Examination	Domain Area
16%	Product performance knowledge
26%	Product installation knowledge
18%	Testing System and System Components
14%	Conducting, documenting and recording inspections and tests
26%	General medical gas knowledge

An NITC-approved proctor administers the multiple-choice 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 on the multiple-choice and/or practical portion will be eligible for re-examination as soon as the next examination is scheduled by NITC. 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 can be accomplished by successfully passing a proctored multiple-choice open book examination which contains forty questions based on the most current editions of the NFPA 99, NFPA 55 and ASSE Series 6000 Standards/Codes.

Certified individuals who have not recertified their certification within thirty days after the expiration date must take the proctored one hundred-twenty six 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 VI. "RECERTIFYING YOUR NITC MEDICAL GAS CERTIFICATION."](#)

V. MEDICAL GAS INSPECTOR

SCOPE OF WORK: MEDICAL GAS INSPECTOR

A Medical Gas Inspector certification candidate is a qualified individual who can demonstrate competence within their scope and will be proficient in and experienced in inspecting installations of medical gas and vacuum systems covered by the ASSE 6000 standard. Inspectors include any individual who inspects the installation of medical gas and vacuum distribution systems. A qualified Medical Gas Inspector may perform these tasks alone, or through the supervision of other individuals.

In addition to knowledge of product installations, a Medical Gas Inspector 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 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 have a minimum of two (2) years of documented practical experience and shall be employed by a governmental unit as a plumbing and/or mechanical inspector, or as an administrator of such inspectors; or be a person regularly involved in the design, inspection or verification of medical gas systems. Certification shall include the successful completion of a minimum 24-hour training course conducted by a Medical Gas Systems Instructor certified to ASSE 6050, and a written and a practical examination covering all facets of ASSE Standard 6000, NFPA 99, and NFPA 55. 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 (440) 835-7040, or at www.asse-plumbing.org.

ABOUT THE EXAMINATION

The Medical Gas Inspector certification examination consists of a proctored, closed book multiple-choice written examination containing one hundred (100) questions. Candidates must correctly answer eighty percent 80% of the questions to achieve a passing grade. The written examination is based on information contained in the NFPA 99, NFPA 55, and the ASSE Series 6000 Standard. The questions are designed so that the average candidate will be able to complete the examination within two hours. A content outline is provided below as an aid in preparing for the exam.

Examination Name: Medical Gas Inspector Certification Examination

Official Examination References:

1. ASSE/IAPMO/ANSI Standard Series 6000-2006
2. NFPA 99 Standard for Health Care Facilities, 2005 Edition
3. NFPA 55 Compressed Gases and Cryogenic Fluids Code

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

Passing grade: Total time allowed: two (2) hours

Passing grade: Multiple-choice, 80% (80 correct)

Total time allowed: two (2) hours

Percent of Examination	Domain Area
17%	Product performance knowledge
15%	Product installation knowledge
23%	Testing System and System Components
19%	Conducting, documenting and recording inspections and tests
26%	General medical gas knowledge

An NITC-approved proctor administers the multiple-choice 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 on the multiple-choice and/or practical portion will be eligible for re-examination as soon as the next examination is scheduled by NITC. 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 can be accomplished by successfully passing a proctored multiple-choice open book examination which contains forty questions based on the most current editions of the NFPA 99, NFPA 55 and ASSE Series 6000 Standards/Codes.

Certified individuals who have not recertified within thirty days after the expiration date must take the proctored one hundred-twenty six 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 VI. "RECERTIFYING YOUR NITC MEDICAL GAS CERTIFICATION."](#)

VI. RECERTIFYING YOUR NITC MEDICAL GAS CERTIFICATION

RECERTIFICATION

Medical Gas Installer/Brazer, Instructor, and Verifier Certifications are each valid for three (3) years from issuance, as long as the following individual requirements are maintained:

- **Installers** shall maintain continuity of brazing per ASME Boiler and Pressure Vessel Code, Section IX performance qualifications (QB322).
- **Instructors** shall maintain a current Medical Gas Systems Installer certification compliant with ASSE Standard 6010.

Once the requirements outlined above are met, recertification can be accomplished by successfully passing a proctored multiple-choice open book examination. The recertification examination contains forty questions based on the most current editions of the NFPA 99, NFPA 55 and ASSE Series 6000 Standards/Codes. Candidates must answer thirty-two (32) of the questions (80%) correctly on the examination to achieve a passing grade. Two hours are allowed for the examination.

The recertification examination may be taken computer-based at any PSI testing location. Additional Information on locations and how to register is provided in a recertification letter sent out by NITC approximately three months prior to expiration of the certification.

Paper-based recertification examinations are available for scheduled groups. Information on how to schedule a group for a proctored examination is contained in this Candidate Bulletin in Section I: "[GENERAL INFORMATION](#)" under the heading "**Examination Scheduling for Groups.**"

After examination results are returned to NITC it may take up to 30 days to receive a new card by mail. Contact NITC after 30 days have passed if the new card has not arrived.

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.

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