



ISO 9001:2015 Certified

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

- ✓ **Medical Gas Installer**
- ✓ **Medical Gas Instructor**
- ✓ **Medical Gas Verifier**
- ✓ **Medical Gas Inspector**
- ✓ **Medical Gas Maintenance**
- ✓ **Medical Gas Systems Generalist**



# Table of Contents

- I. **GENERAL INFORMATION**
  - About NITC's Medical Gas Systems Personnel Certification Program Examination Development
  - How to Obtain the NITC Rules and Procedures Document
  
- II. **MEDICAL GAS INSTALLER**
  - Scope of Work
  - Examination Qualification Requirements
  - About the Examination (Content Outline)
  - Installer/Brazer Recertification
  
- III. **MEDICAL GAS INSTRUCTOR**
  - Scope of Work
  - Examination Qualification Requirements
  - About the Examination (Content Outline)
  - Instructor Recertification
  
- IV. **MEDICAL GAS VERIFIER**
  - Scope of Work
  - Examination Qualification Requirements
  - About the Examination (Content Outline)
  - Verifier Recertification
  
- V. **MEDICAL GAS INSPECTOR**
  - Scope of Work
  - Examination Qualification Requirements
  - About the Examination (Content Outline)
  - Inspector Recertification
  
- VI. **MEDICAL GAS MAINTENANCE**
  - Scope of Work
  - Examination Qualification Requirements
  - About the Examination (Content Outline)
  - Maintenance Recertification
  
- VII. **MEDICAL GAS GENERALIST**
  - Scope of Work
  - Examination Qualification Requirements
  - About the Examination (Content Outline)
  - Generalist Recertification

**Important note to examination candidates:**

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



## I. GENERAL INFORMATION

### 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.


## **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:

- Statement of Purpose
- About NITC
- Certifications Administered by NITC
- Scope of Examinations
- Basis of Examination Construction, Validation and Security
- Maintaining and Upgrading Examinations
- Application Procedures
- Examination Fees
- Examination Process
- Examination Scheduling for Groups
- Computer-Based Testing at PSI Centers Information
- Examination Site Information
- Examination Score
- Information Release Policy
- Issuance of Certification Cards and Wall Certificates
- Requirements for Maintaining Certification
- Correction of Material and/or Technical Errors in Examinations
- Notification to Certified Personnel and Stakeholders of Updated Certifications and New Certifications

- Recertification: (Maintenance of Certification)
- Exam Questions Challenges, Appeals Procedure, Complaints
- Guidelines for Use of Certification Mark
- NITC Policy and Guidelines for Testing Persons with Disabilities
- Proctor Responsibilities
- Conflict of Interest and Confidentiality Statements
- Reissuance of Lost Certification Cards
- NITC No-Show, Cancellation, and Refund Policy
- NITC Certification Scheme Committee

Copies of [NITC's Rules and Procedures](#) are available on the NITC website at [www.nationalitc.com](http://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 Series 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 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 6010, Section 10-3.2. The candidate shall have a minimum of four (4) years of documented practical experience in the field of installation of plumbing or mechanical systems. Certification shall include the successful completion of a minimum 32-hour training course conducted by a Medical Gas Systems Instructor certified to ASSE Standard 6050 and passing grades on (1) a multiple-choice examination covering ASSE Standard 6010 and applicable sections of NFPA 99 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 (708) 995-3019, or at [www.asse-plumbing.org](http://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. PART 2 is a practical examination which involves brazing two coupons.

A content outline is provided below as an aid in preparing for the Medical Gas Installer and Brazer examinations.

## PART 1 – Multiple Choice Examination

### Official Examination References:

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

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

**Passing grade:** 77% (77 correct)

**Total time allowed:** two (2) hours

| Percent of Exam | Objective/Category  |
|-----------------|---|
| 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. Candidates may retake their examination at the NITC offices or at a PSI testing center. Re-examination fees are listed in the [Certification Examination Price List](#).

## PART 2 – BRAZING

The brazing portion of the examination requires candidates to successfully pass a 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 months to retest on the portion that they failed. Upon achieving a passing score for both brazed coupons; the effective date of certification will be the original union date. If a retest is not taken and/or passed, then 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

Medical Gas Installer/Brazer Certification is valid for three (3) years from issuance, as long as the following individual requirement is maintained:

*Installers shall maintain continuity of brazing per ASME Boiler and Pressure Vessel Code, Section IX performance qualifications (QB322) by submitting a braze continuity letter every six months.*

**Once the requirement for continuity of brazing is met as outlined above, recertification** can be accomplished by (1) completing a minimum 4-hour training course to subsequent editions of NFPA 99, and (2) successfully passing a proctored multiple-choice open book examination. **Both the course and the examination are required according to ASSE 6000, sections 10-3.3.1 and 10-3.3.2.** The recertification examination contains forty questions based on the most current edition of NFPA 99. Candidates must answer a minimum of thirty-two (32) of the questions (80%) correctly on the examination to achieve a passing grade. Two (2) 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 [NITC's Rules and Procedures.](#)

### Important note about recertification:

*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.*

NITC **strongly suggests** sitting for the recertification exam within three months of the expiration date. Be aware that while a “grace period” of up to one year after the date of expiration is extended by NITC, individuals **must** allow for the required 21 days for exam processing before the “grace period expires”. **NO EXCEPTIONS.** The individual whose certification has expired is not certified during the grace period. **EXPIRED MEANS EXPIRED.** Failure to recertify within one year of the certification expiration date will require the individual to take the original examination.

Fees are listed in the [Certification Examination Price List.](#)



### 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 Series 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 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 6050, Section 50-3.2. All Medical Gas Systems Instructor candidates shall possess a current NITC 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 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 (708) 995-3019, or at [www.asse-plumbing.org](http://www.asse-plumbing.org).

## **ABOUT THE EXAMINATION**

A content outline is provided below as an aid in preparing for the Medical Gas Instructor examination.

### **Official Examination References:**

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

| <b>Percent of Exam</b> | <b>Objective/Category</b>                                   |
|------------------------|---|
| 18%                    | Product performance knowledge                               |
| 13%                    | Product installation knowledge                              |
| 27%                    | Testing System and System Components                        |
| 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 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 the [Certification Examination Price List](#).

## RECERTIFICATION OF THIS CREDENTIAL

Medical Gas Instructor Certification is valid for three (3) years from issuance, as long as the following individual requirement is maintained:

- *Instructors shall maintain a current NITC Medical Gas Systems Installer certification compliant with ASSE Standard 6010.*

**Once the requirement for renewal of Installer Certification is met as outlined above, recertification** can be accomplished by (1) completing a minimum 4-hour training course to subsequent editions of NFPA 99, and (2) successfully passing a proctored multiple-choice open book examination. **Both the course and the examination are required according to ASSE 6000, sections 50-3.3.1 and 50-3.3.2.** The recertification examination contains forty questions based on the most current edition of NFPA 99. Candidates must answer a minimum of thirty-two (32) of the questions (80%) correctly on the examination to achieve a passing grade. Two (2) 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 [NITC's Rules and Procedures.](#)”

### **Important note about recertification:**

*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.*

NITC **strongly suggests** sitting for the recertification exam within three months of the expiration date. Be aware that while a “grace period” of up to one year after the date of expiration is extended by NITC, individuals **must** allow for the required 21 days for exam processing before the “grace period expires”. **NO EXCEPTIONS.** The individual whose certification has expired is not certified during the grace period. **EXPIRED MEANS EXPIRED.** Failure to recertify within one year of the certification expiration date will require the individual to take the original examination.

Fees are listed in the [Certification Examination Price List.](#)

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

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](http://www.asse-plumbing.org).

### 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 ASSE Standard 6030 and applicable sections of NFPA 99, 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, and professional 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 this certification process in conformance with the ISO/IEC 17024-2012 International Standard for Bodies Operating Certification of Persons. This is an extremely rigid procedure. Exemptions for any reason other than the American Disabilities Act are not accepted.*

## **ABOUT THE EXAMINATION**

Medical Gas Verifier Certification Examination consists of two parts. PART 1 is a closed-book written exam. PART 2 is an open-book practical examination.

A content outline is provided below as an aid in preparing for the Medical Gas Verifier Written and Practical examinations.

### **PART 1 – Written Examination**

#### **Official Examination References:**

1. ASSE Series 6000 Standard
2. NFPA 99 Standard for Health Care Facilities, 2015 Edition
3. NFPA 55 Compressed Gases and Cryogenic Fluids Code

**Description:** Closed book examination consisting of 126 multiple-choice questions.

**Passing grade:** 80% (101 correct)

**Total time allowed:** 2 ½ hours

| <b>Percent of Exam</b> | <b>Objective/Category</b>                                   |
|------------------------|---|
| 18%                    | Product performance knowledge                               |
| 13%                    | Product installation knowledge                              |
| 27%                    | Testing System and System Components                        |
| 20%                    | Conducting, documenting and recording inspections and tests |
| 22%                    | General medical gas knowledge                               |

### **PART 2 – Practical Examination**

This portion provides the candidates with two drawings, (1) a schematic of a Piping Distribution System and (2) a schematic of a Source Equipment System for medical gas.

#### **Official Examination References:**

4. ASSE Series 6000 Standard
5. NFPA 99 Standard for Health Care Facilities, 2015 Edition
6. NFPA 55 Compressed Gases and Cryogenic Fluids Code
7. CGA M-1 Compressed Gas Association Guide for Medical Gas Supply Systems at Consumer Sites

**Description:** Open book practical examination consisting of 70 multiple-choice questions interpreting drawings of a Level 1 medical gas distribution network.

**Passing grade:** 80% (56 correct)

**Total time allowed:** 2 ½ hours

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. Candidates may retake their examination at the NITC offices or at a PSI testing center. Re-examination fees are listed in [Certification Examination Price List](#).

## RECERTIFICATION OF THIS CREDENTIAL

Medical Gas Verifier Certification is valid for three (3) years from issuance. Recertification can be accomplished by (1) completing a minimum 4-hour training course to subsequent editions of NFPA 99, and (2) successfully passing a proctored multiple-choice open book examination. **Both the course and the examination are required according to ASSE 6000, sections 30-3.3.1 and 30-3.3.2.** The recertification examination contains forty questions based on the most current edition of the NFPA 99. Candidates must answer a minimum of thirty (30) of the questions (75%) correctly on the examination to achieve a passing grade. Two (2) 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 [NITC's Rules and Procedures](#).”

### Important note about recertification:

*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.*

NITC **strongly suggests** sitting for the recertification exam within three months of the expiration date. Be aware that while a “grace period” of up to one year after the date of expiration is extended by NITC, individuals **must** allow for the required 21 days for exam processing before the “grace period expires”. **NO EXCEPTIONS.** The individual whose certification has expired is not certified during the grace period. **EXPIRED MEANS EXPIRED.** Failure to recertify within one year of the certification expiration date will require the individual to take the original examination.

Fees are listed in the [Certification Examination Price List](#).

## 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 Series 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 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 6020, Section 20-4.1. The candidate for ASSE 6020 certification shall be employed by a governmental unit as a plumbing and/or mechanical inspector, or as an administrator of such inspector; or be a person regularly involved in the design, inspection, verification of medical gas systems or be a 6010 Installer. Candidates shall have a minimum of two (2) years of documented practical experience or any combination of the above. 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 ASSE Standard 6020 and applicable sections of 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 (708) 995-3019, or at [www.asse-plumbing.org](http://www.asse-plumbing.org).

### ABOUT THE EXAMINATION

A content outline is provided below as an aid in preparing for the Medical Gas Inspector examination.

#### Official Examination References:

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

### 3. NFPA 55 Compressed Gases and Cryogenic Fluids Code

**Description:** Closed book exam consisting of 126 multiple-choice questions

**Passing grade:** Multiple-choice, 80% (101 correct)

**Total time allowed:** two and one half (2-1/2) hours

| Percent of Exam | Objective/Category  |
|-----------------|---|
| 18%             | Product performance knowledge                               |
| 13%             | Product installation knowledge                              |
| 27%             | Testing System and System Components                        |
| 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 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 the [Certification Examination Price List](#).

#### **RECERTIFICATION OF THIS CREDENTIAL**

Medical Gas Inspector Certification is valid for three (3) years from issuance. Recertification can be accomplished by (1) completing a minimum 4-hour training course to subsequent editions of NFPA 99, and (2) successfully passing a proctored multiple-choice open book examination. **Both the course and the examination are required according to ASSE 6000, sections 20-4.2.1 and 20-4.2.2.** The recertification examination contains forty questions based on the most current edition of the NFPA 99. Candidates must answer a minimum of thirty (30) of the questions (75%) correctly on the examination to achieve a passing grade. Two (2) 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 [NITC's Rules and Procedures](#)."

#### **Important note about recertification:**

*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.*



NITC ***strongly suggests*** sitting for the recertification exam within three months of the expiration date. Be aware that while a “grace period” of up to one year after the date of expiration is extended by NITC, individuals **must** allow for the required 21 days for exam processing before the “grace period expires”. **NO EXCEPTIONS**. The individual whose certification has expired is not certified during the grace period. **EXPIRED MEANS EXPIRED**. Failure to recertify within one year of the certification expiration date will require the individual to take the original examination.

Fees are listed in the [Certification Examination Price List](#)..

## 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](http://www.asse-plumbing.org).

### ABOUT THE EXAMINATION

A content outline is provided below as an aid in preparing for the Medical Gas Maintenance 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 | Objective/Category                              |
|-----------------|---|
| 36%             | Medical Gas and Vacuum Source Systems/Equipment |
| 24%             | Medical Gas Station Outlets/Inlets              |
| 4%              | Alarms Systems                                  |
| 10%             | General Knowledge Requirements                  |
| 19%             | Performance and Recording Keeping               |
| 7%              | 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 the [Certification Examination Price List](#).

### RECERTIFICATION OF THIS CREDENTIAL

Medical Gas Maintenance Certification is valid for three (3) years from issuance. Recertification can be accomplished by (1) completing a minimum 4-hour training course to subsequent editions of NFPA 99, and (2) successfully passing a multiple-choice open book examination. **Both the course and the examination are required according to ASSE 6000, sections 40-3.3.1 and 40-3.3.2.** 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.

The recertification exam can be taken online at [www.testrac.com/nitc](http://www.testrac.com/nitc). A Testrac ID and PIN is required. Those are obtained after the registration form, proof of the minimum 4-hour training course and fee are submitted. Four (4) hours are allowed for the exam and results will be provided immediately at the completion of the exam.

### Important note about recertification:

*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.*

NITC **strongly suggests** sitting for the recertification exam within three months of the expiration date. Be aware that while a “grace period” of up to one year after the date of expiration is

extended by NITC, individuals **must** allow for the required 21 days for exam processing before the “grace period expires”. **NO EXCEPTIONS**. The individual whose certification has expired is not certified during the grace period. **EXPIRED MEANS EXPIRED**. Failure to recertify within one year of the certification expiration date will require the individual to take the original examination.

Fees are listed in the [Certification Examination Price List](#).



### III. MEDICAL GAS SYSTEMS GENERALIST

#### SCOPE OF WORK: MEDICAL GAS SYSTEMS GENERALIST

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](http://www.asse-plumbing.org).

#### ABOUT THE EXAMINATION

A content outline is provided below as an aid in preparing for the Medical Gas Generalists 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 | Objective/Category                              |
|-----------------|---|
| 19%             | Central Supply Systems                          |
| 7%              | Definitions                                     |
| 13%             | Distribution/Piping                             |
| 11%             | General Knowledge Requirements                  |
| 6%              | Instrument Air Supply Systems                   |
| 21%             | Medical Gas and 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 the [Certification Examination Price List](#).

### RECERTIFICATION OF THIS CREDENTIAL

Medical Gas Generalist Certification valid for three (3) years from issuance. Recertification can be accomplished by (1) completing a minimum 4-hour training course to subsequent editions of NFPA 99, and (2) successfully passing a multiple-choice open book examination. **Both the course and the examination are required according to ASSE 6000, sections 5-4.2.1 and 5-4-2.2.** 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.

The recertification exam can be taken online at [www.testrac.com/nitc](http://www.testrac.com/nitc). A Testrac ID and PIN is required. Those are obtained after the registration form, proof of the minimum 4-hour training course and fee are submitted. Four (4) hours are allowed for the exam and results will be provided immediately at the completion of the exam.

#### Important note about recertification:

*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.*

NITC **strongly suggests** sitting for the recertification exam within three months of the expiration date. Be aware that while a “grace period” of up to one year after the date of expiration is extended by NITC, individuals **must** allow for the required 21 days for exam processing before the “grace period expires”. **NO EXCEPTIONS.** The individual whose certification has expired is not certified during the grace period. **EXPIRED MEANS EXPIRED.** Failure to recertify within one year of the certification expiration date will require the individual to take the original examination.

Fees are listed in the [Certification Examination Price List](#).