### **Environmental & Medical Gas Services**

103 Hunter Industrial Dr. Villa Rica, GA 30180 FAX: 770-459-1812 PHONE: 770-459-5920 COURSE DATE: August 21-24, 2023 COURSE

LOCATION: EMGS - Villa Rica, GA

**REGISTRATION DEADLINE: July 31, 2023** 

**COURSE LANGUAGE: English** 

## ASSE 6040 MEDICAL GAS SYSTEMS

### MAINTENANCE PERSONNEL COURSE SYNOPSIS

### DAY ONE

A. ASSE 6040/NFPA 99 Introduction

B. NFPA 99 Definitions Chapter 3

C. NFPA 99 Fundamentals Chapter 4

D. NFPA 99 Central Supply/Source Systems

Requirements

#### DAY THREE

A. Station Outlets/Inlets

B. Manufactured Assemblies

C. Alarm/Warning Systems

D. Medical Gas System Testing

E. Medical Gas System Labeling and Verification

### **DAY TWO**

A. Medical Air Supply/Source Systems

B. Medical Air Supply/Source Proportioning Systems

C. Medical Surgical Vacuum Supply/Source Systems

D. Waste Anesthetic Gas Disposal (WAGD)

Supply/Source Systems

E. Instrument Air Supply/Source Systems

F. Gas and Vacuum Shutoff Valves

#### DAY FOUR

A. Maintenance of Medical Gas, Vacuum, WAGD, and Medical Support Gas Systems

B. Category 2 and Category 3 Systems

C. Gas Equipment Storage, Operations and Maintenance

D. ASSE 6040 Professional Qualification Standard, Annex

D and Annex I

E. Test

If you have to cancel your course attendance after payment has been processed, you will have a credit towards a future course for one year. It is the responsibility of the student to sign up for another upcoming course within that year.

### **ASSE 6040 MEDICAL GAS SYSTEMS**

### MAINTENANCE PERSONNEL COURSE SYNOPSIS

The course begins with an introduction to the 2021 NFPA 99 Code and ASSE Series 6000 Standard. Chapters 1, 3, 4, 5 and 9 from the NFPA 99 are covered, along with the ASSE 6040 "Medical Gas Systems Maintenance Personnel" Standard from the ASSE Series 6000, with Annex D and J.

Each student will receive complete copies of both documents.

Each student will have access to online source equipment operating technologies, schematic diagrams, operating and maintenance instructions for medical gas systems and question worksheets.

A minimum test score of 70% is required to pass the written exam. The exam consists of 100 questions and is an open book test. Upon successful completion of the course, a certificate and picture ID card are mailed to the student's employer.

The cost of the course is \$950 per student, with a minimum of (8) students required for a class. Class wil start at 8:00 AM and last until approximately 5:00 PM each day, with the exception of the final (test) day, as some students may finish earlier than others

**Please note:** This course requires nightly homework. If you or your registered employee is required to attend class as well as perform job duties in the evenings, they are not likely to pass this test.

EMGS courses are taught by a credentialed ASSE 6050 instructor.



# **ASSE 6040**

### **Exam Application**

APPLICANT'S NAME:	C	OMPANY:	
ADDRESS:	P	HONE NUMBER:	
CITY:		CONTACT PERSON:	
STATE:	EI	MAIL:	
APPLICANT EMAIL:			
Paragraph 40-3.2.1 of the 2021 Eccertification shall be employed or medical gas systems, and shall have vacuum systems." Please list the doc	contracted by a health care f e one (1) year minimum experie	facility or be actively engagence in the maintenance of	ged in working with
Employer, City & Phone Nu	mber	Dates	
	et for MGA Exams and agree to abid		
I have or will have completed th	ne 24-hour course required to fulfill	this certification.	
the previous edition. I schedule testing, altho	cense valid, a short course an edition is released. This course t is the license holders respon ough MGA will send an email PA 99 edition is released.	e and test will cover chang nsibility to check their exp	ges made from iration date and
SIGNATURE OF APPLICANT:		DATE:	
			4
Medical Gas Licensing	WEBSITE: www.m	WEBSITE: www.medgaslicense.com	

**COURSE DATE:** 

**REGISTRATION DEADLINE:** 

Return application to jdarden@emgsi.com

LOCATION:

TIME:

FAX: 678-498-2749 PHONE: 770-783-3630

PO Box 820 MAIL:

Villa Rica, GA 30180





### **Environmental & Medical Gas Services**

103 Hunter Industrial Dr. Villa Rica, GA 30180

Ph. (770) 459-5920 Fax (770) 459-1812

### TRAINING CREDIT CARD AUTHORIZATION FORM

MasterCard:	Visa:	Discover:	Amex:
Card Number:			
Expiration Date:			
Name as it appears on c	redit card:		
Billing Address:			
3-or 4-digit security cod	e:		
Total amount authorized	l to charge:	-	
Cardholder signature:			
Email address for receip	t:		
		ASSE 6005 - \$750	
		ASSE 6010 - \$950	
		ASSE 6020 - \$850	
		ASSE 6040 - \$950	
an.		lass materials, NFPA 99 book, f or standards depending upon c	
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**Please note:** Payment is due by the registration deadline. If attendance is canceled after this date, we will apply payment towards another class held within 6 months. It is the applicant's responsibility to keep track of class credit for upcoming courses.

Does not include braze materials for ASSE 6010.



### **Information Sheet for MGA Exams**

- To qualify for the **ASSE 6005** exam, the candidate must meet the requirements of the **ASSE 6005** which are as follows:
  - 1. Have a general interest in medical gas and vacuum systems and equipment.
  - 2. Complete a 24-hour course taught by an ASSE 6050 certified instructor.
  - 3. Successfully complete a written or computer exam.
- To qualify for **the ASSE 6010** exam, the candidate must meet the requirements of the **ASSE 6010** which are as follows:
  - 1. ASSE 6010 2021 Para. 10-3.2.1 "The candidates for the ASSE 6010 certification shall have a minimum of four (4) years of documented practical experience in the field of installation of plumbing or mechanical piping systems." 2. Complete a 32-hour course taught by an ASSE 6050 certified instructor.
  - 3. Successfully complete a written or computer exam.
  - 4. Successfully complete a practical brazing exam.
  - 5. In addition, most states require that medical gas installers hold a journeyman or master plumbing license. If you are in the process of gaining your plumbing license, the ASSE 6010 certification can typically be added after you've gained your plumbing license even if this course is completed first.
- To qualify for the **ASSE 6020** exam, the candidate must meet the requirements of the **ASSE 6020** which are as follows:
  - 1. ASSE 6020 2021 Para. 20-4.1.1 "The candidates for ASSE 6020 certification 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, or be a 6010 installer. Candidates shall have a minimum of two (2) years of documented practical experience or any combination of the above."
  - 2. Complete a 24-hour course taught by an ASSE 6050 certified instructor.
  - 3. Successfully complete a written or computer exam.



- To qualify for the **ASSE 6030** exam, the candidate must meet the requirements of the **ASSE 6030** which are as follows:
  - 1. ASSE 6030 2021 Para. 30-3.2.1 "The candidates for ASSE 6030 certification shall have a minimum of two (2) years of documented practical experience in the verification of medical gas systems."
  - 2. Complete a 32-hour course taught by an ASSE 6050 certified instructor.
  - 3. Successfully complete a written or computer exam.
  - 4. Successfully complete a practical exam.
- To qualify for the **ASSE 6035** exam, the candidate must meet the requirements of the **ASSE 6035** which are as follows:
  - ASSE 6035 2021 Para. 35-3.2.1 "The candidates for ASSE 6035 certification shall have a minimum of two (2) years of documented practical experience in the verification and/or inspection of bulk medical gas/cryogenic fluid central supply systems.
  - Complete a 32-hour course taught by an ASSE 6050 certified instructor OR hold an ASSE 6030 medical gas verifier's credential and complete an additional minimum 16hour training course.
  - 3. Successfully complete a written or computer exam.
  - 4. Successfully complete a practical exam.
- To qualify for the **ASSE 6040** exam, the candidate must meet the requirements of the **ASSE 6040** which are as follows:
  - 1. ASSE 6040 2021 Para. 40-3.2.1 "The candidates for ASSE 6040 certification shall be employed or contracted by a health care facility or be actively engaged in working with medical gas systems and shall have one (1) year minimum experience in the maintenance of the medical gas and vacuum systems."
  - 2. Complete a 24-hour course taught by an ASSE 6050 certified instructor.
  - 3. Successfully complete a written or computer exam.



- To qualify for the **ASSE 6050** exam, the candidate must meet the requirements of the **ASSE 6050** which are as follows:
  - 1. ASSE 6050 2021 Para. 50-3.2.1 "The candidates for ASSE 6050 certification shall have a minimum of ten (10) years of documented experience in the installation of plumbing or mechanical piping systems, including a minimum of two (2) years of documented experience in the installation of medical gas and vacuum systems. Instructors shall have a minimum of two (2) years of documented practical teaching experience. Instructors shall possess a current medical gas systems installer certification in compliance with ASSE Standard 6010."
  - 2. Complete a 40-hour course taught by an ASSE 6050 certified instructor.
  - 3. Successfully complete a written or computer exam.
- To qualify for the **ASSE 6060** exam, the candidate must meet the requirements of the **ASSE 6060** which are as follows:
  - 1. ASSE 6060 2021 Para. 60-3.2.1 "The candidates for ASSE 6060 certification shall have two (2) years of documented practical experience in the mechanical and plumbing systems industry and require practical knowledge of the design of medical gas and vacuum systems.
  - 2. Complete a 32-hour course taught by an ASSE 6050 certified instructor.
  - 3. Successfully complete a written or computer exam.



### Appeals Process:

Appeals to any certification rule or procedure must be made in writing and sent via US mail, email or fax. A written response from MGA will be returned within 30 days.

### Suspension or Revocation Process:

Brazing must be performed every six months and an affidavit returned stating that the installer has used the brazing technique within the previous six months at least once. These can be returned late provided that the installer is willing to sign sworn affidavits that the brazing process was performed every six months. However, if no affidavits have been returned for a period of (24) months, the installer must submit a vertical brazed coupon for testing to reinstate his brazing certification.

If an installer neglects to take the required course and test on two subsequent NFPA 99 editions, his license may be revoked, and a new course may be required.

### Inappropriate Representation:

If any MGA license holder misrepresents his license in any way, to include falsifying the scope of his certification or ability, his license can be revoked.

### ASSE 6000 Passing Exam Grades:

ASSE 6005 - 70%

ASSE 6010 - 70%

ASSE 6020 - 70%

ASSE 6030 - 85%

ASSE 6035 – 85%

ASSE 6040 – 70%

ASSE 6050 - 85%

ASSE 6060 - 70%



### ACCREDITATION

### ASSE 6000 Exam Materials Allowed:

6005 - NFPA 99

NFPA 55

**ASSE 6000** 

6010 - NFPA 99

**ASSE 6000** 

6020 - NFPA 99

NFPA 55

**ASSE 6000** 

6030 - NFPA 99

NFPA 55

**ASSE 6000** 

CGA M-1

6035 - NFPA 99

NFPA 55

**ASSE 6000** 

CGA M-1

**CGA P-18** 

CGA E-10

CGA G-4.1

21 CFR part 210, 211 and 820

6040 - NFPA 99

ASSE 6000

6050 - NFPA 99

NFPA 55

CGA M-1

6060 - NFPA 99

NFPA 55

**ASSE 6000** 

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