

## MEDICAL GAS & VACUUM SYSTEMS TRAINING PROGRAMS

### **SEMINARS OFFERED:**

We offer seminars in most subjects relating to medical gas and vacuum systems including installation, maintenance, inspection, and testing requirements and procedures, code and standard review, developing an operation and management program, planned system shutdown and back-feed policies and procedures, equipment overview, transfilling operations, and general knowledge. These seminars can be tailored to accommodate the facilities specific needs and requirements. The following is a list of content areas that are available. Any combination of seminars can be used to develop a site-specific program for your facility. The seminar content is based on the requirements of NFPA 99, NFPA 55, ASSE Series 6000 Standard, and the applicable provisions of the Joint Commission (EC) Standards and Centers for Medicare & Medicaid Services.

### **GENERAL KNOWLEDGE**

These seminars provide a basic understanding of terminology used in the medical gas industry, qualifications for those working with medical gas systems, and identifies the purposes and uses of medical gases.

- 1.) Basic terminology and definitions
- 2.) Medical gas system qualifications
- 3.) The purpose and uses of medical gases
- 4.) High pressure cylinder requirements

### **MEDICAL GAS CENTRAL SUPPLY SYSTEMS**

These seminars provide an overview of the central supply systems used in healthcare facilities. The content can be developed for any audience in the healthcare facility. Some of the areas to consider are basic operating principles and performance characteristics, NFPA 99 requirements, critical safety precautions, and routine maintenance, troubleshooting, and repairs.

- 1.) Medical gas headers and manifolds
- 2.) Bulk oxygen systems
- 3.) Medical air compressor systems
- 4.) Medical-surgical vacuum pump systems
- 5.) Waste anesthetic gas disposal (WAGD) systems

### **MEDICAL GAS PIPELINE COMPONENTS**

These seminars provide an overview of the requirements for medical gas pipeline components. The content can be developed for any audience in the healthcare facility. Some of the areas to consider are basic operating principles and performance characteristics, NFPA 99 requirements, critical safety precautions, and routine maintenance, troubleshooting, and repairs.

- 1.) Valves
- 2.) Warning systems (master alarms, area alarms, and local alarms)
- 3.) Station outlets/inlets
- 4.) Labeling and identification
- 5.) Medical gas pipeline distribution

## **OTHER MEDICAL GAS SEMINARS**

These seminars provide an overview of other critical policies and procedures relating to the medical gas systems. The content was developed based on industry standard operating procedures and applicable codes and standards

- 1.) Code and standard review
- 2.) Developing and operation and management program
- 3.) Precautions and hazards during maintenance and testing
- 4.) Planned system shutdown and back-feed policies and procedures
- 5.) Emergency operations and contingency planning
- 6.) Inspection and testing procedures
- 7.) Inspection and testing documentation and record keeping

## **CERTIFICATION COURSES OFFERED:**

We offer courses regularly at our state of the art Training Center in Manchester, NH. We can also conduct courses at your requested locations. You are encouraged to contact AMG should you wish to discuss this option.

### **ASSE 6005 MEDICAL GAS SYSTEMS SPECIALIST CERTIFICATION**

This certification provides for a general knowledge of medical gas and vacuum systems and is eligible to any person with an interest in medical gas and vacuum systems. The purpose of this course is to provide the minimum of general knowledge, product performance knowledge, product installation knowledge, system testing knowledge, terminology, and documentation requirements.

The standard requires that this certification be provided through a recognized third-party certification agency and includes the successful completion of a 24 hour training course and a written examination covering the specific content of the course.

### **ASSE 6010 MEDICAL GAS SYSTEMS INSTALLERS CERTIFICATION**

This certification provides for specific knowledge of medical gas and vacuum systems and is eligible to any person who installs medical gas and vacuum systems. The purpose of this course is to provide the general knowledge, product performance knowledge, product installation knowledge, system testing knowledge, terminology, and documentation and record requirements identified by industry consensus to ensure competency of the individual to safely install medical gas and vacuum systems.

The standard requires that this certification be provided through a recognized third-party certification agency and includes the successful completion of a 32 hour training course, a written examination covering the specific content of the course, and a practical (braze) examination. The practical (braze) examination is administered in accordance with ASME IX *Standard for Brazing Procedure and Performance Qualifications*. It is required that the candidate for this course have a minimum of four (4) years of documented practical experience in the installation of piping systems.

**Note:** NFPA 99: Health Care Facilities Code, requires this certification for any person installing Category 1, 2, or 3 medical gas and vacuum systems.

### **ASSE 6020 MEDICAL GAS SYSTEMS INSPECTORS CERTIFICATION**

This certification provides for specific knowledge of medical gas and vacuum systems and is eligible to any person who inspects the installation of medical gas and vacuum systems. The purpose of this course is to provide the general knowledge, product performance knowledge, product installation knowledge, system testing knowledge, terminology, and documentation and record requirements identified by industry consensus to ensure competency of the individual to safely inspect medical gas and vacuum systems.

The standard requires that this certification be provided through a recognized third-party certification agency and includes the successful completion of a 24 hour training course and a written examination covering the specific content of the course. The standard also requires that the candidate for this course be employed by a governmental unit as an inspector or administrator of such inspectors or be regularly involved in the design, inspection, or verification of medical gas systems. The candidates are required to have a minimum of two (2) years of documented practical experience.

### **ASSE 6040 MEDICAL GAS SYSTEMS MAINTENANCE PERSONNEL CERTIFICATION**

This certification provides for specific knowledge of medical gas and vacuum systems and is eligible to any person who maintains medical gas and vacuum systems. The purpose of this course is to provide the general knowledge, product performance knowledge, product installation knowledge, system testing knowledge, terminology, and documentation and record requirements identified by industry consensus to ensure competency of the individual to safely maintain medical gas and vacuum systems.

The standard requires that this certification be provided through a recognized third-party certification agency and includes the successful completion of a 32 hour training course and a written examination covering the specific content of the course. The candidates are required to have a minimum of one (1) year of documented practical experience in the maintenance of medical gas systems.

### **INSTRUCTORS:**

Mr. Jonathan Willard is the president and co-owner of the company, which was founded with the vision to be a single-source, turnkey provider of comprehensive medical gas services. He has worked in the medical gas and health care construction industry for almost 20 years. He has worked on some of the most significant and complex healthcare projects in the region. In addition to holding ALL of the ASSE 6000 medical gas credentials, Mr. Willard is a principal member of the Technical Committee on Medical Gas and Vacuum Piping Systems (*NFPA 99: Health Care Facilities Code*) and a principal member of the Technical Committee on Industrial and Medical Gases (*NFPA 55: Compressed Gases and Cryogenic Fluids Code*). He currently serves on the Medical Gas Professional Healthcare Organization (MGPHO) Board of Directors and is also a LEED AP (Accredited Professional), a certified Project Management Professional (PMP), and a Certified Healthcare Constructor (CHC) with a Master of Science degree in Business Education (MBE).

Mr. Doug Ostraat is the vice president and co-owner of the company. He has worked in the medical gas industry since 1970, first as a respiratory therapist and then as a supervisor, responsible for the maintenance and testing of a facility's medical gas and vacuum systems and related secondary equipment. He left the hospital to become a sales and service representative for a large medical gas and respiratory care equipment distributor. In 1978, he started his own company, which he has operated as an independent distributor of medical gases, respiratory therapy and life support equipment. For the past 35 years, the company has been providing medical gas system service, testing and training. He holds an ASSE 6010, ASSE 6030, ASSE 6035, ASSE 6050, and ASSE 6055 certifications.