



ME163: Process Identification and Calculation of Fugitive Emissions

Training Description:

This intensive course provides introductory level information relating to the source and control of fugitive VOC (Volatile Organic Compounds) and VHAP (Volatile Hazardous Air Pollutant) emissions through the application of a leak detection and repair (LDAR) program.

The most important aspects of this course are the introduction and definitions/descriptions of basic terms, processes, and equipment related fugitive VOC and VHAP emissions.

Training Objectives:

The course is made up of seven lessons that meet the following course objectives:

(Throughout the remainder of the course, all references to fugitive emissions will assume emissions of VOC and VHAP types only.)

- ✓ Identify the regulations related to fugitive emissions
- ✓ Identify the sources capable issuing fugitive emissions
- ✓ Identify the equipment capable of issuing fugitive emissions
- ✓ Describe the components of the LDAR (leak detection and repair) program
- ✓ Identify the test equipment used to detect fugitive emissions
- ✓ Identify the performance specifications for Federal Reference Method 21

Training Designed for:

This course is intended for participants wishing to gain an overview and understanding of plant inspection needs, techniques and requirements. Those working in operations, maintenance, commissioning and risk management, from planners and technicians through to engineers, contractors, supervisors and managers, will benefit from this course. This course is also suitable for those working in other industries/functions and wishing to transfer into plant inspection and seek a greater understanding.

Training Requirement:

“Hand’s on practical sessions, equipment and software will be applied during the course if required and as per the client’s request.”

Contents can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client’s learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Program:

DAY ONE:

- ❖ PRE-TEST
- ❖ Introduction
- ❖ What Are Fugitive Emissions?
- ❖ What Equipment is Regulated?
- ❖ What Source Categories Are Regulated?
- ❖ The Need for Regulation
- ❖ How Are Fugitive Emissions Detected and Controlled?

❖ The LDAR Inspection Program

DAY TWO:

❖ REGULATIONS AFFECTING FUGITIVE EMISSION MONITORING

- Objectives
- Fugitive VOC regulations
- Philosophical timeline
- A short history of the passage of the CAAA of 1990
- The effects of Title I and Title III
- Equipment leaks regulations under NSPS
- Subpart VV: Synthetic Organic Chemicals Manufacturing Industry (SOCMI)
- Petroleum refineries
- Onshore natural gas processing
- Polymer manufacturing plants
- Equipment leaks regulations under NESHAP
- Vinyl Chloride
- Benzene
- Fugitive Emission Sources (40CFR61)
- Equipment covered by HON
- Regulation considerations
- Leak detection and repair program

❖ FUGITIVE VOC EMISSION PROPERTIES

- Classification of Air Pollutants
- Regulated Pollutants
- VOC Categories
- Regulatory Definitions

DAY THREE:

❖ FUGITIVE EMISSION SOURCES

- Major leaking components
- Flanges and connectors
- Valves
- Pumps
- Compressors
- Pressure Relief Devices

❖ FEDERAL REFERENCE METHOD 21

- Portable VOC Analyzers
- Monitor Response
- Measurement Range
- Scale Resolution
- Response time
- Safety
- Probe Dimensions
- Response Factor (RF)
- Accuracy

- Selecting an Analyzer

DAY FOUR:

❖ LEAK DETECTION AND REPAIR PROGRAM

- LDAR and LDAR
- Scope
- Record Review
- Inspection Plan

❖ RECORDKEEPING

- Fugitive Leak Requirements
- Recordkeeping Requirements for Leaks
- NSPS Reporting Requirements
- NSPS Other Reporting Requirements
- Maximum leaking valves
- Skip-period LDAR program

DAY FIVE:

❖ DEVELOPING A FUGITIVE EMISSIONS MANAGEMENT PROGRAM

- Contact Information
- Resourcing
- Preventive Maintenance
- Procedures and Plans
- Techniques and Equipment
- Equipment Calibration and Maintenance
- Training
- Data Management
- Continuous Improvement

❖ Course Conclusion

❖ POST-ASSESSMENT and EVALUATION

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Gamification, Software & General Discussions
- Pre and Post Test

Training Fees:

TBA as per the course location - This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Certificate(s):

CMCT Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:00	Recess (Prayer Break & Lunch)
13:00 - 14:00	Last Session

For training registrations or in-house enquiries, please contact:

Aisha Relativo - Training & Career Development Manager

aisha@cmc-me.com / training@cmc-me.com

Tel.: +971 2 665 3945 or +971 2 643 6653 | Mob.: +971 52 2954615