

ASME Course Catalog



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ASME – Abnormal Operating Conditions

MEA Certificate Numbers **TNG - MEA11519**
 KNT - MEA11520

Continuing Education Unit (CEU) **0.1**

Course Description

This course covers Abnormal Operating Conditions (AOCs) related to equipment and procedures in the pipeline industry. Personnel working on natural gas and hazardous liquid pipelines must be able to identify when an abnormal or potentially hazardous condition exists, and then react appropriately.

Objectives

- Identify abnormal pipeline operations vs. abnormal conditions.
- Recognize and react appropriately to standard pipeline AOCs and anticipated problems.
- Implement make safe procedures.
- Properly document and report AOCs and potentially hazardous conditions.

ASME – GAS01 Hazards of Natural Gas and Prevention of Accidental Ignition

MEA Certificate Numbers **TNG – MEA11524**
 KNT – MEA11523

Continuing Education Unit (CEU) **0.1**

Course Description

Natural gas is a fossil fuel, made up primarily of methane. It may have by-products that include ethane, propane, butanes, pentanes, hydrocarbons, sulfur, and carbon dioxide. It is processed and refined to become a simple, clean burning source of energy to power homes, business, and industry. This course discusses the hazards of natural gas and how to prevent accidental ignition.

Objectives

- How natural gas is formed, is extracted and refined, and used.
- The chemical make-up of natural gas, its properties and behaviors.
- The potential dangers of natural gas.
- How to locate and eliminate sources of natural gas ignition on the job site in the event of a gas leak.
- Procedures and requirements for responding to natural gas leaks.

ASME – 0001 Measure Structure-to-Electrolyte Potential

MEA Certificate Numbers **TNG - MEA11139**
 KNT – MEA1813
 PEF – MEA1976

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses activities associated with using measurement equipment to take a reading of the potential between a pipe or tank and the soil.

Objectives

- Performing checks on test equipment.
- Identifying and locating correct test points.
- Measuring structure-to-electrolyte potential.
- Documentation and record keeping.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0011 Conduct Close Interval Survey

MEA Certificate Numbers **TNG – MEA11140**
 KNT – MEA1814
 PEF – MEA1977

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses activities associated with gathering electrical potential readings along the pipeline at specified intervals.

Objectives

- Performing checks on test equipment.
- Identifying and locating correct test points.
- Performing interval surveys.
- Completing required documentation.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0021 Measure Soil Resistivity

MEA Certificate Numbers **TNG – MEA11141**
 KNT – MEA1815
 PEF – MEA1978

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses taking soil resistivity measurements for use in verifying adequate cathodic protection level.

Objectives

- Identifying requirements for soil resistivity testing.
- Identifying and locating correct test points.
- Taking measurements and recording data.

- Ensuring accuracy of test results.
- Performing test equipment checks.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0031 Inspect and Monitor Galvanic Ground Beds/Anodes

MEA Certificate Numbers **TNG – MEA11142**
 KNT – MEA1816
 PEF – MEA1979

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses activities associated with inspecting and monitoring the electric potential of galvanic groundbeds and anodes.

Objectives

- Performing checks on test equipment.
- Identifying and locating correct test points.
- Measuring current output of anodes and groundbeds.
- Maintaining records and documentation.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0041 Installation and Maintenance of Mechanical Electrical Connections

MEA Certificate Numbers **TNG – MEA11143**
 KNT – MEA1817
 PEF – MEA1980

Continuing Education Unit (CEU) **0.1**

Course Description

In general, all buried steel pipelines require the use of cathodic protection systems as a form of corrosion control. This course discusses requirements for installing and maintaining the electrical connections required for cathodic protection, such as tracer wire, test leads, bonds and shunts.

Objectives

- Electrical connection requirements.
- Checking test equipment.
- Installing and maintaining electrical connections using mechanical fittings.
- Verifying mechanical integrity and electrical continuity.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0051 Installation of Exothermic Electrical Connections

MEA Certificate Numbers **TNG – MEA11144**
 KNT – MEA1818
 PEF – MEA1981

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses making exothermic (e.g., thermite, cadweld and pin-brazing) connections of tracer wire, test leads, bonds, shunts, etc.

Objectives

- Exothermic connection requirements.
- Checking test equipment.
- Making weld connections.
- Verifying mechanical integrity and electrical continuity.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0061 Inspect or Test Cathodic Protection Bonds

MEA Certificate Numbers **TNG – MEA11145**
 KNT – MEA1819
 PEF – MEA1982

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses the inspection and testing of cathodic protection bonds. For metallic pipelines, bonds are installed across all joints, across any electrically discontinuous connections, and across all other pipe and structures (with other than welded or threaded joints) included in the cathodic protection system.

Objectives

- The basics of cathodic protection (CP).
- Requirements for inspection and testing of CP bonds.
- Test equipment operation.
- Recognizing and reacting to abnormal conditions.

ASME – 0071 Inspect or Test Cathodic Protection Electrical Isolation Devices

MEA Certificate Numbers **TNG – MEA11146**
 KNT – MEA1820
 PEF – MEA1983

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses activities associated with inspecting and testing of electrical isolation devices used as part of cathodic protection systems for buried pipelines.

Objectives

- The basics of cathodic protection.
- General inspection and testing requirements.
- Test equipment calibration and operation.
- Maintaining records and documentation.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0081 Install Cathodic Protection Electrical Isolation Devices

MEA Certificate Numbers **TNG – MEA11147**
 KNT – MEA1821
 PEF – MEA1984

Continuing Education Unit (CEU) **0.1**

Course Description

Electrical isolation is the condition of being electrically separated from other metallic structures within the environment. It is often necessary to install electrical isolation devices in order to ensure proper cathodic protection of a pipeline.

Objectives

- General cathodic protection requirements.
- Electrical isolation requirements.
- Installing electrical isolation devices.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0091 Troubleshoot In-Service Cathodic Protection System

MEA Certificate Numbers **TNG – MEA11148**
 KNT – MEA1822
 PEF – MEA1985

Continuing Education Unit (CEU) **0.1**

Course Description

Cathodic protection systems use electrical current to prevent the corrosion of buried metallic structures. In pipelines, this can prevent rust and deterioration, lowering the risk of dangerous leaks and extending the life of the pipeline. This course discusses requirements and procedures for troubleshooting in-service cathodic protection systems.

Objectives

- General information on cathodic protection.
- Inspection and testing requirements.
- Operating test equipment.
- Troubleshooting and analyzing test results.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0101 Inspect Rectifier and Obtain Readings

MEA Certificate Numbers **TNG – MEA11149**
 KNT – MEA1823
 PEF – MEA1986

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses inspecting the rectifier for damage and deterioration, and obtaining readings as specified.

Objectives

- Inspection requirements.
- Performing test equipment check.
- Obtaining voltage and current output readings.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0111 Maintain Rectifier

MEA Certificate Numbers **TNG – MEA11150**
 KNT – MEA1824
 PEF – MEA1987

Continuing Education Unit (CEU) **0.1**

Course Description

Rectifiers are used to convert alternating current to direct current for use in cathodic protection of buried pipelines. This course discusses verification that a rectifier is functioning within specified parameters after it has been hung and AC power applied, prior to (or during) placing in service. This course also discusses actions to repair or replace in-service rectifiers or components.

Objectives

- Identifying maintenance requirements.
- Performing test equipment checks.
- Testing and troubleshooting procedures.
- Repair or replacement of defective components.
- Placing the rectifier in service.

- Adjusting rectifier output.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0121 Collect Sample for Internal Corrosion Monitoring

MEA Certificate Numbers **TNG – MEA11151**
 KNT – MEA1825
 PEF – MEA1988

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses the collection and handling of samples (gas, liquid, solids) for internal corrosion monitoring, including preventing contamination of the samples.

Objectives

- Types of corrosion.
- Methods of inspection.
- Collection methods.
- Monitoring procedures.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0131 Insert and Remove Coupons/Probes for Internal Corrosion Monitoring

MEA Certificate Numbers **TNG – MEA11152**
 KNT – MEA1826
 PEF – MEA1989

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses inserting and removing coupons/probes for internal corrosion monitoring, and preventing contamination or damage of the coupons/probes.

Objectives

- Corrosion basics.
- Coupon preparation.
- Inserting and removing coupons.
- Preparing coupons for shipment.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0141 Visual Inspection for Atmospheric Corrosion

MEA Certificate Numbers **TNG – MEA11153**
 KNT – MEA1827
 PEF – MEA1990

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses the inspection of pipe and pipeline components, exposed to the atmosphere, for the purpose of detecting atmospheric corrosion.

Objectives

- The causes and signs of atmospheric corrosion.
- Monitoring requirements.
- Visual inspection requirements.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0151 Visual Inspection of Buried Pipe and Components When Exposed

MEA Certificate Numbers **TNG – MEA11154**
 KNT – MEA1828
 PEF – MEA1991

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses inspection of buried pipe and pipeline components when exposed for the purpose of detecting external corrosion and evaluating coating integrity.

Objectives

- Types of corrosion.
- Inspecting coating.
- Inspecting pipe surfaces.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0161 Visual Inspection for Internal Corrosion

MEA Certificate Numbers **TNG – MEA11155**
 KNT – MEA1829
 PEF – MEA1992

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses inspection of the internal surface of pipe and pipeline components, including tapping coupons, when exposed for the purpose of detecting internal corrosion.

Objectives

- Visual inspection requirements.
- Inspecting protective coating.
- Inspecting internal pipe surfaces, components and tapping coupons.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0171 Measure External Corrosion

MEA Certificate Numbers **TNG – MEA11156**
 KNT – MEA1830
 PEF – MEA1993

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses activities to measure and characterize external corrosion, including investigation to determine the extent of corrosion and recording data. This course applies to buried pipelines; measurement of atmospheric corrosion on aboveground pipelines is covered in a separate course.

Objectives

- Identifying various types of corrosion.
- Corrosion measurement preparation.
- Taking external corrosion measurements.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0181 Measure Internal Corrosion

MEA Certificate Numbers **TNG – MEA11157**
 KNT – MEA1831
 PEF – MEA1994

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses activities to measure and characterize internal corrosion, including investigation to determine the extent of corrosion and recording data.

Objectives

- Surface preparation.
- Performing test equipment check.

- Taking measurements.
- Identifying characteristics of corrosion.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0191 Measure Atmospheric Corrosion

MEA Certificate Numbers **TNG – MEA11158**
 KNT – MEA1832
 PEF – MEA1995

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses activities to measure and characterize atmospheric corrosion, including investigation to determine the extent of corrosion and recording data.

Objectives

- Surface preparation.
- Performing test equipment check.
- Taking measurements.
- Identifying characteristics of corrosion.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0201 Visual Inspection of Installed Pipe and Components for Mechanical Damage

MEA Certificate Numbers **TNG – MEA11159**
 KNT – MEA1833
 PEF – MEA1996

Continuing Education Unit (CEU) **0.1**

Course Description

To reduce the possibility of failure, pipe must be properly inspected. Damage to pipe and its components can occur during installation, accidents, excavation activities, or during routine maintenance. Each length of pipe and each pipe component must be visually inspected at the site of installation to ensure that it has not sustained any visually determinable damage that could impair its serviceability. Exposed pipe must be inspected for evidence of corrosion or manufacturing defects associated with mechanical damage.

Objectives

- Visual Inspection of pipe.
- Visual Inspection of pipeline components.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0211 Measure and Characterize Mechanical Damage on Installed Pipe and Components

MEA Certificate Numbers TNG - MEA11160
 KNT - MEA1834
 PEF – MEA1997

Continuing Education Unit (CEU) 0.1

Course Description

This course discusses activities to measure and characterize mechanical damage (e.g. dents, gouges, cracks) on installed pipe and components, including investigation to determine the extent of damage and recording data.

Objectives

- Surface preparation requirements.
- Taking measurements.
- Characterizing damage.
- Recording damage.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0221 Inspect, Test and Maintain Sensing Devices

MEA Certificate Numbers TNG – MEA11161
 KNT – MEA1835
 PEF – MEA1998

Continuing Education Unit (CEU) 0.1

Course Description

This course discusses the proper procedures to locate, inspect, test, maintain, and replace sensing devices such as pressure switches and pressure, temperature, and differential transmitters.

Objectives

- Prior knowledge base required.
- Verifying proper operation prior to or during placing in service.
- Verifying proper operation after installation.
- Adjusting sensing device set points and defective components.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0231 Inspect, Test and Maintain Programmable Logic Controllers

MEA Certificate Numbers TNG – MEA11162
 KNT – MEA1836
 PEF – MEA1999

Continuing Education Unit (CEU) 0.1**Course Description**

Pipelines transport product that the world needs and are present almost everywhere. Pipelines are controlled by supervisory control and data acquisition systems (SCADA) to provide product and guard against damaging leaks. Programmable Logic Controllers (PLCs) are a component of a SCADA system. PLCs provide dependable and economical high-speed control and monitoring in pipeline applications. This course identifies procedures to inspect, test and maintain PLCs.

Objectives

- Remove PLCs from service.
- Perform test equipment checks.
- Perform a PLC visual inspection.
- Perform PLC test and maintenance procedures.
- Properly return PLC to service.
- Recognize and react to Abnormal Operating Conditions.

ASME – 0241 Inspect, Test and Maintain Liquid Leak Detection Flow Computers

MEA Certificate Numbers **TNG – MEA11163**
 KNT – MEA1837
 PEF – MEA11000

Continuing Education Unit (CEU) 0.1**Course Description**

This course discusses verification that the flow computer, when used in a computational pipeline monitoring leak detection system, is functioning within specified parameters. This includes prior to, during, and after placing the flow computer in service.

Objectives

- Procedures for verifying proper functioning of flow computer.
- Placing flow computer in manual mode.
- Removing flow computer from service.
- Visually inspecting flow computer.
- Procedures to repair or replace flow computers and components.
- Adjusting flow computer set points.
- Conducting flow computer performance tests.

ASME – 0251 Inspection and Testing, Corrective and Preventive Maintenance – Overfill Protection Systems

MEA Certificate Numbers TNG – MEA11164
 KNT – MEA1838
 PEF – MEA11001

Continuing Education Unit (CEU) 0.1

Course Description

This course discusses requirements for inspection and testing, corrective and preventive maintenance for overfill protection systems.

Objectives

- Inspecting and testing system components.
- Troubleshooting device failures.
- Performing preventive and corrective maintenance.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0261 Inspection and Testing, Corrective and Preventive Maintenance – Tank Gauges For Leak Detection

MEA Certificate Numbers TNG – MEA11165
 KNT – MEA1839
 PEF – MEA11002

Continuing Education Unit (CEU) 0.1

Course Description

Tank gauges are an important part of monitoring storage tank inventory in order to detect potentially dangerous leaks. This course discusses inspection, testing, corrective and preventive maintenance of tank gauges used for leak detection.

Objectives

- Identifying and performing pre-test procedures.
- Performing visual, external, and internal inspections of tank gauge systems.
- Performing preventive and corrective maintenance on tank gauge systems.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0271 Prove Flow Meters for Hazardous Liquid Leak Detection

MEA Certificate Numbers TNG – MEA11166
 KNT – MEA1840
 PEF – MEA11003

Continuing Education Unit (CEU) 0.1**Course Description**

Flow meters measure the flow of product moving through a pipe. Measurements are used to analyze the quality and rate of flow. Decrease in flow can indicate problems such as dangerous leaks. Inaccurate flow meters or the failure to take measurements can have serious consequences. Proving is the process for verifying the accuracy of flow meters for leak detection purposes. By comparing known standards to measurements of individual flow meters, workers are able to evaluate a flow meters accuracy and repeatability.

Objectives

- Functions and types of flow meters.
- Factors that affect flow meters.
- Process and calculations of proving flow meters.
- Different proving methods of flow meters.
- Proving flow meter calculations.
- Proving process notifications.
- Proving operating parameters, requirements and procedures.
- Documentation requirements.

ASME – 0281 Maintain Flow Meters for Hazardous Liquid Leak Detection

MEA Certificate Numbers **TNG – MEA11167**
 KNT – MEA1841
 PEF – MEA11004

Continuing Education Unit (CEU) 0.1**Course Description**

This course covers verification of flow meters (e.g. line integrity meters) for hazardous leak detection. Flow meters measure the quantity or flow of products moving through a pipe. Their measurements are used to analyze flow quality and flow rates. Drops in flow rate can indicate problems such as dangerous leaks. Inaccurate flow meters or failure to take measurements can have serious consequences.

Objectives

- Complete an inspection and performance evaluation of flow meters.
- Identify conditions out of parameters or specifications.
- Troubleshoot performance issues and determine proper actions to resolve conditions.
- Maintain flow meters, including adjusting outputs, repair, or replacement.
- Recognize and react to abnormal operating conditions.

ASME – 0291 Inspect, Test and Maintain Gravimeters/Densitometers for Hazardous Liquid Leak Detection

MEA Certificate Numbers **TNG – MEA11168**
 KNT – MEA1842
 PEF – MEA11005

Continuing Education Unit (CEU) **0.1**

Course Description

Gravimeters and densitometers are pipeline industry tools that measure and monitor product density and specific gravity of liquids and gases for many purposes, including hazardous liquid leak detection. The performance of a hazardous liquid leak detection monitoring systems is limited by the accuracy of the instrumentation. To keep leak detection instrumentation such as gravimeters and densitometers in top performance, regular inspection, testing, and maintenance is necessary.

Objectives

- Understand operating principles of gravimeters and densitometers.
- Identify inspection, testing, and maintenance requirements and procedures.
- Maintaining component(s).
- Recognize and react to potential problems and abnormal operating conditions (AOC's).

ASME – 0301 Manually Opening and Closing Valves

MEA Certificate Numbers **TNG – MEA11169**
 KNT – MEA1843
 PEF – MEA11006

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses manually opening and closing valves (e.g., pipeline startup and shutdown, flow direction, pigging, tank switching, etc.) at the valve site, either manually or using the valve actuator. Also included is information on valve identification, notifications and pressure verification. This course does not induce operation of valves for adjusting and monitoring flow or pressure or temporary isolation of service lines and service discontinuance.

Objectives

- Verifying valve identification.
- Understanding the procedure for opening and closing valves.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0311 Adjust and Monitor Flow or Pressure-Manual Valve Operation

MEA Certificate Numbers TNG – MEA11170
 KNT – MEA1844
 PEF – MEA11007

Continuing Education Unit (CEU) 0.1

Course Description

This course covers the adjustment of flow or pressure, either manually or using the valve actuator at the valve site. This includes valve identification, notifications and pressure verification.

Objectives

- Requirements for flow or pressure adjustment.
- Valve and segment identification and verification.
- Manual valve operation for adjusting and maintaining pressure or flow.
- Notification requirements.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0321 Valve Corrective Maintenance

MEA Certificate Numbers TNG – MEA11171
 KNT – MEA1845
 PEF – MEA11008

Continuing Education Unit (CEU) 0.1

Course Description

Valves are used extensively in pipeline transmission systems to interrupt, divert, or regulate the flow of product. This course discusses the repair, replacement, alternation or refurbishment of pipeline valves.

Objectives

- Identify valve maintenance requirements.
- Verify valve identification.
- Perform valve maintenance and lubrication procedures.
- Recognize and react to abnormal operating conditions.

ASME – 0331 Valve-Visual Inspection and Partial Operation

MEA Certificate Numbers TNG – MEA11172
 KNT – MEA1846
 PEF – MEA11009

Continuing Education Unit (CEU) 0.1

Course Description

This course discusses visual inspection, partial operation (function test), and lubrication of valves, except for the temporary isolation of service lines and service discontinuance (See ASME-1191).

Objectives

- Identify inspection requirements.
- Verify valve identification.
- Visually inspect and partially operate valves.
- Lubricate valves.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0341 Valve – Preventive Maintenance

MEA Certificate Numbers **TNG – MEA11173**
 KNT – MEA1847
 PEF – MEA11010

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses activities involved with preventive maintenance of valves.

Objectives

- Verifying valve identification.
- Performing preventive maintenance of valves.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0351 Pneumatic Actuator/Operator Inspection and Testing, Preventive and Corrective Maintenance

MEA Certificate Numbers **TNG – MEA11174**
 KNT – MEA1848
 PEF – MEA11011

Continuing Education Unit (CEU) **0.1**

Course Description

Pneumatic actuators/operators are an important part of successful pipeline operation. They allow for the remote and automatic operation of valves, which is extremely important during a crisis as well as day-to-day work.

Therefore, inspection, testing, preventive and corrective maintenance is essential to verify these components are fail safe.

Objectives

- Understanding actuators.
- Identifying procedures for inspection, testing, and maintenance.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0361 Electric Actuator/Operator Inspection and Testing, Preventative and Corrective Maintenance

MEA Certificate Numbers **TNG – MEA11175**
 KNT – MEA1849
 PEF – MEA11012

Continuing Education Unit (CEU) **0.1**

Course Description

Electric actuators/operators are an important part of successful pipeline operation. They allow for the remote and automatic operation of valves, which is extremely important during a crisis as well as day-to-day work. Therefore, inspection, testing, preventive and corrective maintenance is essential to verify these components are fail safe.

Objectives

- Understanding actuators.
- Identifying procedures for inspection, testing, and maintenance.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0371 Hydraulic Actuator/Operator Inspection and Testing, Preventive and Corrective Maintenance

MEA Certificate Numbers **TNG – MEA11176**
 KNT – MEA1850
 PEF – MEA11013

Continuing Education Unit (CEU) **0.1**

Course Description

Hydraulic actuators/operators are an important part of successful pipeline operation. They allow for the remote and automatic operation of valves, which is extremely important during a crisis as well as day-to-day work. Therefore, inspection, testing, preventive and corrective maintenance is essential to verify these components are fail safe.

Objectives

- Understanding actuators.
- Identifying procedures for inspection, testing, and maintenance.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0381 Spring Loaded Pressure Regulating Device-Inspection and Testing, Preventive and Corrective Maintenance

MEA Certificate Numbers **TNG – MEA11177**
 KNT – MEA1851
 PEF – MEA11014

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses activities involved with inspection and testing, and preventive and corrective maintenance of spring-loaded pressure regulators.

Objectives

- Understanding the importance of regulating pressure in a pressurized pipeline.
- Understanding the types and components of pressure regulators.
- Identifying the requirements for inspection and testing, and preventive and corrective maintenance.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0391 Pilot Operated Pressure Regulating Device-Inspection, Testing, Preventive and Corrective Maintenance

MEA Certificate Numbers **TNG – MEA11178**
 KNT – MEA1852
 PEF – MEA11015

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses activities involved with inspection and testing, and preventive and corrective maintenance of pilot-operated pressure regulators.

Objectives

- Understanding the importance of regulating pressure in a pressurized pipeline.
- Understanding the types and components of pressure regulators.
- Identifying the requirements for inspection and testing, and preventive and corrective maintenance.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0401 Controller Type Pressure Regulating Device - Inspection, Testing, Preventive and Corrective Maintenance

MEA Certificate Numbers **TNG – MEA11179**
 KNT – MEA1853
 PEF – MEA11016

Continuing Education Unit (CEU) 0.1**Course Description**

This course discusses activities involved with inspection and testing, and preventive and corrective maintenance of controller type pressure regulators.

Objectives

- Understanding the importance of regulating pressure in a pressurized pipeline.
- Understanding the types and components of pressure regulators.
- Identifying the requirements for inspection and testing, and preventive and corrective maintenance.
- Recognizing and reacting to abnormal operating conditions.

**ASME – 0411 Spring Loaded Pressure Limiting and Relief Device-Inspection, Testing,
Preventive and Corrective Maintenance**

MEA Certificate Numbers TNG – MEA11180
 KNT – MEA1854
 PEF – MEA11017

Continuing Education Unit (CEU) 0.1**Course Description**

This course discusses activities involved with inspection and testing, and preventive and corrective maintenance of spring-loaded pressure limiting and relief devices.

Objectives

- Understanding the importance of regulating pressure in a pressurized pipeline.
- Understanding the types and components of pressure regulators.
- Identifying the requirements for inspection and testing, and preventive and corrective maintenance.
- Recognizing and reacting to abnormal operating conditions.

**ASME – 0421 Pilot Operated Pressure Limiting and Relief Device-Inspection, Testing,
Preventive and Corrective Maintenance**

MEA Certificate Numbers TNG – MEA11181
 KNT – MEA1855
 PEF – MEA11018

Continuing Education Unit (CEU) 0.1**Course Description**

This course discusses activities involved with inspection and testing, preventive and corrective maintenance of pilot-operated pressure limiting and relief devices.

Objectives

- Understanding the importance of regulating pressure in a pressurized pipeline.
- Understanding the types and components of pressure regulators.
- Identifying the requirements for inspection and testing, and preventive and corrective maintenance.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0431 Pneumatic Loaded Pressure Limiting and Relief Device-Inspection, Testing, Preventive and Corrective Maintenance

MEA Certificate Numbers **TNG – MEA11182**
 KNT – MEA1856
 PEF – MEA11019

Continuing Education Unit (CEU) 0.1

Course Description

This course discusses activities involved with inspection and testing, and preventive and corrective maintenance of pneumatic-loaded pressure limiting and relief devices.

Objectives

- Understanding the importance of regulating pressure in a pressurized pipeline.
- Understanding the types and components of pressure regulators.
- Identifying the requirements for inspection and testing, and preventive and corrective maintenance.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0441 Compressor Start-Up and Shutdown - Manual

MEA Certificate Numbers **TNG – MEA11183**
 KNT – MEA1857
 PEF – MEA11020

Continuing Education Unit (CEU) 0.1

Course Description

Compressors are used to increase the pressure in a gas pipeline, maintain the desired flow of gas through the pipeline and allow gas to flow from a lower pressure pipeline to a higher pressure pipeline.

Therefore, compressors are an important part to ensuring pipeline capacity and efficiency. This course reviews pipeline compressors and their drivers and the appropriate activities associated with the manual process of compressor shutdown, removal from service, return to service and startup procedures.

Objectives

- Pipeline compressor and driver types.
- Specifications for manual shutdown and startup of compressor stations.

- Procedures for compressor & driver shutdown, removal from service, return to service and startup.
- Process for change of compressor status.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0451 Pump - Start-up and Shutdown - Manual

MEA Certificate Numbers **TNG – MEA11184**
 KNT – MEA1858
 PEF – MEA11021

Continuing Education Unit (CEU) **0.1**

Course Description

Pumps are used to increase the flow or maintain the desired flow of liquids through the pipeline and to allow liquids to flow from a lower pressure pipeline to a higher pressure pipeline. Therefore, pumps are an important part to ensuring pipeline capacity and efficiency.

This course reviews pipeline pumps and their drivers and the appropriate activities associated with the manual process of pump startup, removal from service, return to service and shutdown procedures.

Objectives

- Pump and driver types.
- Specifications for manual shutdown and startup of pump stations.
- Procedures for pump & driver shutdown, removal from service, return to service and startup.
- Process for change of pump status.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0461 Compressor Preventive Maintenance

MEA Certificate Numbers **TNG – MEA11185**
 KNT – MEA1859
 PEF – MEA11022

Continuing Education Unit (CEU) **0.1**

Course Description

This course covers activities associated with preventive maintenance of pipeline compressor units. A well-structured compressor maintenance program provides improved safety, reliability, efficiency, run-time, housekeeping and environmental/regulatory compliance. The degree of compressor dependability is in direct proportion to the effectiveness of the preventive maintenance program. Therefore, it is very important to maintain compressors to ensure pipeline capacity and efficiency. It is also important as an operator to know how to recognize and properly react to an AOC should one occur during maintenance.

Objectives

- Compressor station equipment and its operation.
- Compressor preventive maintenance program requirements.
- Actions for keeping compressor units operating safely and efficiently.
- Procedures for routine maintenance of compressor stations.
- Recognizing and reacting to compressor station abnormal operating conditions.

ASME – 0471 Reciprocating Compressor Inspection, Testing and Corrective Maintenance

MEA Certificate Numbers **TNG – MEA11186**
 KNT – MEA1860
 PEF – MEA11023

Continuing Education Unit (CEU) **0.1**

Course Description

Whether it's new, replaced or rebuilt, a reciprocating compressor needs to function within specified parameters. Typically, inspections and tests are used to confirm that both the compressor's components and its performance meet the required operating conditions. If conditions are not met, then corrective measures are needed.

Objectives

- Reciprocating compressor inspection, testing and corrective maintenance specifications and procedures.
- Checking test equipment.
- Performing a visual inspection.
- Diagnosing/troubleshooting abnormal conditions.
- Performing corrective maintenance.
- Testing operating parameters.
- Documenting requirements.
- Recognizing and reacting to abnormal operating and anticipated conditions.

ASME – 0481 Centrifugal Compressor Inspection, Testing and Corrective Maintenance

MEA Certificate Numbers **TNG – MEA11187**
 KNT – MEA1861
 PEF – MEA11024

Continuing Education Unit (CEU) **0.1**

Course Description

Whether it is new, replaced, or rebuilt, a centrifugal compressor needs to function within specified parameters. Typically, inspections and tests are used to confirm that both the compressor's components and its performance meet the required operating conditions. If conditions are not met, then corrective measures are needed.

Objectives

- Centrifugal compressor inspection, testing & corrective maintenance specifications and procedures.
- Checking test equipment.
- Performing a visual inspection.
- Diagnosing and troubleshooting abnormal conditions.
- Performing corrective maintenance.
- Testing operating parameters.
- Documenting requirements.
- Recognizing and reacting to abnormal operating and anticipated conditions.

ASME – 0491 Rotary Compressor Inspection, Testing and Corrective Maintenance

MEA Certificate Numbers TNG – MEA11188
 KNT – MEA1862
 PEF – MEA11025

Continuing Education Unit (CEU) 0.1

Course Description

Whether it's new, replaced, or rebuilt, a rotary compressor needs to function within specified parameters. Typically, inspections and tests are used to confirm that both the compressor's components and its performance meet the required operating conditions. If conditions are not met, then corrective measures are needed.

Objectives

- Rotary compressor inspection, testing & corrective maintenance specification and procedures
- Checking test equipment.
- Performing a visual inspection.
- Diagnosing/troubleshooting abnormal conditions.
- Performing corrective maintenance.
- Testing operating parameters.
- Documenting requirements.
- Recognizing and reacting to abnormal operating and anticipated conditions.

ASME – 0501 Pump Preventive Maintenance

MEA Certificate Numbers TNG – MEA11189
 KNT – MEA1863
 PEF – MEA11026

Continuing Education Unit (CEU) 0.1

Course Description

A well-structured pump maintenance program provides improved safety, reliability, efficiency, run-time, housekeeping and environmental regulatory compliance. The degree of pump dependability is in direct proportion

to the effectiveness of the preventive maintenance program. Therefore, it is very important to maintain pumps to ensure pipeline capacity, efficiency and safety. It is also important as an operator to know how to recognize and properly react to an AOC should one occur.

Objectives

- Pump station equipment.
- Pump station maintenance programs.
- Pump station inspection, monitoring & maintenance requirements.
- Preventive maintenance procedures.
- Recognizing and reacting to abnormal operating conditions during maintenance activities.

ASME – 0511 Centrifugal Pump Inspection and Testing and Corrective Maintenance

MEA Certificate Numbers **TNG – MEA11190**
 KNT – MEA1864
 PEF – MEA11027

Continuing Education Unit (CEU) **0.1**

Course Description

Whether it is new, replaced, or rebuilt, a centrifugal pump needs to function within specified parameters. Typically, inspections and tests are used to confirm that both the pump's components and its performance meet the required operating conditions. If conditions are not met, then corrective measures are needed.

Objectives

- Centrifugal pump inspection, testing and corrective maintenance specifications and procedures.
- Checking test equipment.
- Performing a visual inspection.
- Diagnosing/troubleshooting abnormal conditions.
- Performing corrective maintenance.
- Testing operating parameters.
- Documenting requirements.
- Preventive maintenance procedures.
- Recognizing and reacting to abnormal operating and anticipated conditions.

ASME – 0521 Reciprocating Pump Inspection and Testing and Corrective Maintenance

MEA Certificate Numbers **TNG – MEA11191**
 KNT – MEA1865
 PEF – MEA11028

Continuing Education Unit (CEU) **0.1**

Course Description

Whether it's new, replaced or rebuilt, a reciprocating pump needs to function within specified parameters. Typically, inspections and tests are used to confirm that both the pump's components and its performance meet the required operating conditions. If conditions are not met, then corrective measures are needed.

Objectives

- Reciprocating pump inspection, testing and corrective maintenance specifications and procedures.
- Checking test equipment.
- Performing a visual inspection.
- Diagnosing/troubleshooting abnormal conditions.
- Performing corrective maintenance.
- Testing operating parameters.
- Documenting requirements.
- Recognizing and reacting to abnormal operating and anticipated conditions.

ASME – 0531 Rotary Pump Inspection and Testing and Corrective Maintenance

MEA Certificate Numbers **TNG – MEA11192**
 KNT – MEA1866
 PEF – MEA11029

Continuing Education Unit (CEU) **0.1**

Course Description

Whether it's new, replaced or rebuilt, a rotary pump needs to function within specified parameters. Typically, inspections and tests are used to confirm that both the pump's components and its performance meet the required operating conditions. If conditions are not met, then corrective measures are needed.

Objectives

- Rotary pump inspection, testing and corrective maintenance specifications and procedures.
- Checking test equipment.
- Performing a visual inspection.
- Diagnosing/troubleshooting abnormal conditions.
- Performing corrective maintenance.
- Testing operating parameters.
- Documenting requirements.
- Recognizing and reacting to abnormal operating and anticipated conditions.

ASME – 0541 Screw Pump Inspection and Testing and Corrective Maintenance

MEA Certificate Numbers **TNG – MEA11193**
 KNT – MEA1867
 PEF – MEA11030

Continuing Education Unit (CEU) 0.1**Course Description**

Whether it's new, replaced or rebuilt, a screw pump needs to function within specified parameters. Typically, inspections and tests are used to confirm that both the pump's components and its performance meet the required operating conditions. If conditions are not met, then corrective measures are needed.

Objectives

- Screw pump inspection, testing and corrective maintenance specifications and procedures.
- Checking test equipment.
- Performing a visual inspection.
- Diagnosing/troubleshooting abnormal conditions.
- Performing corrective maintenance.
- Testing operating parameters.
- Documenting requirements.
- Recognizing and reacting to abnormal operating and anticipated conditions.

ASME-0551 Explosive Atmospheric Detection and Alarm System Performance Test and Corrective Maintenance

MEA Certificate Numbers TNG – MEA11194
 KNT – MEA1868
 PEF – MEA11031

Continuing Education Unit (CEU) 0.1**Course Description**

A natural gas distribution and/or transportation pipeline system should have a gas detection and alarm system to monitor the risk of combustible gas. This course covers permanently installed systems used to detect gas in the atmosphere and their alarm systems.

Objectives

- Identify gas detection systems and their functions.
- Maintain gas detection systems through performance tests.
- Recognize and react to abnormal operating conditions.

ASME – 0561 Pressure Test – Non-Liquid Medium – Test Pressure Less Than 100 psi

MEA Certificate Numbers TNG – MEA11195
 KNT – MEA1869
 PEF – MEA11032

Continuing Education Unit (CEU) 0.1

Course Description

This course discusses pressure testing using a non-liquid medium with MAOP less than 100 psi.

Objectives

- Understanding MAOP, system types, service lines and mains for pressurized pipelines.
- Identifying factors to consider when determining pressure testing requirements.
- Understanding required preparation for the pressure test.
- Describing steps required to perform the pressure test.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0571 Pressure Test – Non-Liquid Medium – Test Pressure Greater Than or Equal to 100 psi

MEA Certificate Numbers TNG – MEA11196
 KNT – MEA1870
 PEF – MEA11033

Continuing Education Unit (CEU) 0.1

Course Description

This course discusses pressure testing using a non-liquid medium with MAOP greater than or equal to 100 psi.

Objectives

- Understanding MAOP, system types, service lines and mains for pressurized pipelines.
- Identifying factors to consider when determining pressure testing requirements.
- Understanding required preparation for the pressure test.
- Describing steps required to perform the pressure test.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0581 Pressure Test – Liquid Medium

MEA Certificate Numbers TNG – MEA11197
 KNT – MEA1871
 PEF – MEA11034

Continuing Education Unit (CEU) 0.1

Course Description

This course discusses pressure testing using a liquid medium.

Objectives

- Understanding MAOP, system types, service lines and mains for pressurized pipelines.
- Identifying factors to consider when determining pressure testing requirements.
- Understanding required preparation for the pressure test.

- Describing steps required to perform the pressure test.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0591 Leak Test at Operating Pressure

MEA Certificate Numbers **TNG – MEA11198**
 KNT – MEA1872
 PEF – MEA11035

Continuing Education Unit (CEU) **0.1**

Course Description

This course covers activities associated with the detection of pipeline leaks at standard operating pressure either visually or with the use of leak detection equipment.

Objectives

- Identifying leak test requirements.
- Preparing equipment for leak testing.
- Performing leak tests at operating pressure.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0601 NDT – Radiographic Testing

MEA Certificate Numbers **TNG – MEA11199**
 KNT – MEA1873
 PEF – MEA11036

Continuing Education Unit (CEU) **0.1**

Course Description

Welding is the most common way to join metals in many trades, and pipelines are no exception. Whether joining pipe sections, repairing pipe, or installing a pipeline component, welding provides a strong joining solution. But what happens when welds are defective? Pipes may burst, product may escape, and dangerous explosions may result. The field of nondestructive testing (NDT) provides a way to test completed welds and detect non-visible defects for the purpose of preventing these situations. This course covers radiographic testing, a form of NDT.

Objectives

- Various nondestructive testing methods.
- Qualification of personnel performing NDT.
- Safety issues and precautions.
- Performing radiographic testing.
- Interpreting radiographic test results and identifying weld defects.
- Documentation requirements.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0611 NDT – Liquid Penetrant Testing

MEA Certificate Numbers **TNG – MEA11200**
 KNT – MEA1874
 PEF – MEA11037

Continuing Education Unit (CEU) **0.1**

Course Description

Welding is the most common way to join metals in many trades, and pipelines are no exception. Whether joining pipe sections, repairing pipe, or installing a pipeline component, welding provides a strong joining solution. But what happens when welds are defective? Pipes may burst, product may escape, and dangerous explosions may result. The field of nondestructive testing (NDT) provides a way to test completed welds and detect non-visible defects for the purpose of preventing these situations. This course covers liquid penetrant testing, a form of NDT.

Objectives

- Various nondestructive testing methods.
- Qualification of personnel performing NDT.
- Safety issues and precautions.
- Performing liquid penetrant testing.
- Evaluating test results and identifying weld defects.
- Documentation requirements.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0621 NDT – Magnetic Particle Testing

MEA Certificate Numbers **TNG – MEA11201**
 KNT – MEA1875
 PEF – MEA11038

Continuing Education Unit (CEU) **0.1**

Course Description

Welding is the most common way to join metals in many trades, and pipelines are no exception. Whether joining pipe sections, repairing pipe, or installing a pipeline component, welding provides a strong joining solution. But what happens when welds are defective? Pipes may burst, product may escape, and dangerous explosions may result. The field of nondestructive testing (NDT) provides a way to test completed welds and detect non-visible defects for the purpose of preventing these situations. This course covers magnetic particle testing, a form of NDT.

Objectives

- Various nondestructive testing methods.
- Qualification of personnel performing NDT.
- Safety issues and precautions.
- Performing magnetic particle testing.
- Evaluating test results and identifying weld defects.

- Documentation requirements.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0631 NDT – Ultrasonic Testing

MEA Certificate Numbers **TNG – MEA11202**
 KNT – MEA1876
 PEF – MEA11039

Continuing Education Unit (CEU) **0.1**

Course Description

Welding is the most common way to join metals in many trades, and pipelines are no exception. Whether joining pipe sections, repairing pipe, or installing a pipeline component, welding provides a strong joining solution. But what happens when welds are defective? Pipes may burst, product may escape, and dangerous explosions may result. The field of nondestructive testing (NDT) provides a way to test completed welds and detect non-visible defects for the purpose of preventing these situations. This course covers ultrasonic testing, a form of NDT.

Objectives

- Various nondestructive testing methods.
- Qualification of personnel performing NDT.
- Safety issues and precautions.
- Performing ultrasonic testing.
- Interpreting ultrasonic test results and identifying weld defects.
- Documentation requirements.
- Recognizing and reacting to abnormal operating conditions.

ASME-0641 Visually Inspect Pipe and Components - Prior to Installation

MEA Certificate Numbers **TNG – MEA11203**
 KNT – MEA1877
 PEF – MEA11040

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses requirements and procedures for visual inspection of pipeline and components prior to installation.

Objectives

- Federal requirements for pre-installation inspection.
- Procedures for visually inspecting pipeline and components.
- Repair and replacement requirements as outlined in the Code of Federal regulations.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0651 Routine Visual Inspection of Breakout Tanks

MEA Certificate Numbers **TNG – MEA11204**
 KNT – MEA1878
 PEF – MEA11041

Continuing Education Unit (CEU) **0.1**

Course Description

Routine in-service inspections are performed on breakout tanks and tank components to identify visually determinable damage and defects.

Objectives

- Identification of visual inspection of breakout tanks and tank components requirements.
- Performance of a visual inspection.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0661 Inspection of Breakout Tanks

MEA Certificate Numbers **TNG – MEA11205**
 KNT – MEA1879
 PEF – MEA11042

Continuing Education Unit (CEU) **0.1**

Course Description

A breakout tank is used to relieve surges in a hazardous liquid pipeline system as well as receive and store hazardous liquid transported by a pipeline for re-injection and continued transportation by a pipeline. In order to protect employees and the environment, periodic inspections of breakout tanks must be performed. Therefore, this course covers the inspection of liquid pipeline breakout tanks.

Objectives

- General breakout tank inspection requirements.
- API 653 inspection requirements.
- API 510 inspection requirements.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0671 Joining of Plastic Pipe – Solvent Cement

MEA Certificate Numbers **TNG – MEA11206**
 KNT – MEA1880
 PEF – MEA11043

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses the assembly and joining of plastic pipe and components using solvent cement, and inspection of completed joints.

Objectives

- Identifying joining requirements.
- Preparing pipe and couplings.
- Pipe joining procedures.
- Inspection requirements for completed joints.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0681 Joining of Plastic Pipe – Stab Fittings

MEA Certificate Numbers **TNG – MEA11207**
 KNT – MEA1881
 PEF – MEA11044

Continuing Education Unit (CEU) **0.1**

Course Description

Plastic pipe may not be joined using a threaded joint or miter joint. Plastic pipe is often joined by solvent cement, adhesive, heat fusion or stab fittings. This course discusses joining plastic pipe using stab fittings.

Objectives

- Identifying requirements for fitting selection.
- Proper joining procedures.
- Performing inspection and testing of the joint.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0691 Joining of Pipe Non-Bottom Out Compression Couplings

MEA Certificate Numbers **TNG – MEA11208**
 KNT – MEA1882
 PEF – MEA11045

Continuing Education Unit (CEU) **0.1**

Course Description

This course covers the joining of pipe 2 inches or less, using non-bottom out compression couplings. A non-bottom out compression coupling is one that requires tightening to a specified torque or number of turns.

Objectives

- Identifying requirements for fitting selection.
- Proper joining procedures.

- Performing inspection and testing of the completed joint.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0701 Joining of Pipe – Bottom Out Compression Couplings

MEA Certificate Numbers **TNG – MEA11209**
 KNT – MEA1883
 PEF – MEA11046

Continuing Education Unit (CEU) **0.1**

Course Description

Pipe sections are usually joined by welding or fusion. Mechanical joining is another alternative, using mechanical fittings to form the joint. This covers joining of pipe using bottom out compression couplings.

Objectives

- Comprehend requirements for mechanical fitting selection.
- Identify proper joining procedures.
- Perform inspection and testing of the joint.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0711 Joining of Pipe – Compression Couplings

MEA Certificate Numbers **TNG – MEA11210**
 KNT – MEA1884
 PEF – MEA11047

Continuing Education Unit (CEU) **0.1**

Course Description

Pipe is generally joined by a welding or fusion process. Mechanical joining is another alternative, using mechanical fittings to form the joint connection. This course covers the joining of pipe, greater than 2 inches in diameter, using compression couplings.

Objectives

- Identifying requirements for mechanical fitting selection.
- Verify proper joining procedures.
- Perform proper inspection and testing of a mechanical joint.
- Recognize and react to abnormal operating conditions.

ASME – 0721 Joining of Pipe – Threaded Joints

MEA Certificate Numbers **TNG – MEA11211**
 KNT – MEA1885
 PEF – MEA11048

Continuing Education Unit (CEU) **0.1**

Course Description

This course covers the joining of threaded pipes with threaded fittings and the inspection of completed joints.

Objectives

- Overview of threaded pipes and joints.
- Identification of threaded pipe joint requirements.
- Preparing and joining threaded pipes.
- Conducting an inspection of completed joints.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0731 Joining of Pipe – Flange Assembly

MEA Certificate Numbers **TNG – MEA11212**
 KNT – MEA1886
 PEF – MEA11049

Continuing Education Unit (CEU) **0.1**

Course Description

Pipeline systems have numerous connection points, such as between pipe segments and pipes, valves, fittings, regulators, etc. Often, flanges are used to ensure strong leak-proof joints, which are vital for the safe operation of the system

Objectives

- Requirements for flange assembly.
- How to prepare the flange surface.
- How to install a flange gasket.
- How to align mating surfaces.
- How to install and tighten fasteners.
- Anticipated conditions encountered during inspection of a completed joint.
- Documentation requirements.
- How to recognize and react to abnormal operating conditions.

ASME – 0741 Joining of Copper Pipe - Brazing or Soldering

MEA Certificate Numbers **TNG – MEA11213**
 KNT – MEA1887
 PEF – MEA11050

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses the joining of copper pipe by brazing or soldering.

Objectives

- Identify the difference between brazing and soldering.
- Determine the proper joining method for copper pipe.
- Understand the function of fittings, filler metal, and flux during brazing and soldering operations.
- Properly prepare job site and joining materials for brazing or soldering.
- Perform the proper steps and technique for joining copper pipe by brazing or soldering.
- Recognize and react to abnormal operating conditions.

ASME – 0751 Joining of Plastic Pipe – Butt Heat Fusion: Manual

MEA Certificate Numbers **TNG – MEA11214**
 KNT – MEA1888
 PEF – MEA11051

Continuing Education Unit (CEU) **0.1**

Course Description

Certain pipeline situations may call for the joining of plastic pipe. This course covers the joining of plastic pipe via butt heat fusion. Butt heat fusion joins squared ends of two pipes together by melting pipe material and applying force to join the pipe ends. When fused properly, the pipe joint becomes as strong or stronger than the pipe itself.

Objectives

- List requirements for plastic pipe butt heat fusion.
- Explain how to prepare pipe for fusion operation.
- Describe general butt heat fusion of pipe and fittings.
- Explain how to inspect butt fused joints.
- Recognize and react to Abnormal Operating Conditions.

ASME – 0761 Joining of Plastic Pipe – Butt Heat Fusion: Hydraulic Machine

MEA Certificate Numbers **TNG – MEA11215**
 KNT – MEA1889
 PEF – MEA11052

Continuing Education Unit (CEU) 0.1**Course Description**

Certain pipeline situations may call for the joining of plastic pipe. This course covers the joining of plastic pipe by butt heat fusion using a hydraulic machine. Butt heat fusion joins squared ends of two pipes together by melting pipe material and applying force to join the pipe ends. When fused properly, the pipe joint becomes as strong or stronger than the pipe itself.

Objectives

- List requirements for plastic pipe butt heat fusion.
- Explain how to prepare pipe for fusion operation.
- Describe general butt heat fusion of pipe and fittings.
- Observe safety precautions.
- Explain how to inspect butt fused joints.
- Recognize and react to Abnormal Operating Conditions.

ASME – 0771 Joining of Plastic Pipe – Sidewall Heat Fusion

MEA Certificate Numbers **TNG – MEA11216**
 KNT – MEA1890
 PEF – MEA11053

Continuing Education Unit (CEU) 0.1**Course Description**

Certain pipeline situations may call for the joining of plastic pipe and service fittings. This course covers joining of plastic pipe via saddle (or sidewall) heat fusion. Sidewall heat fusion joins a branching or service saddle to the sidewall of a pipe at a 90 degree angle by melting both pipe and fitting and applying force to join the two. When fused properly, the joint becomes as strong as or stronger than the pipe itself.

Objectives

- List requirements for plastic pipe sidewall heat fusion.
- Explain how to prepare pipe and fittings for fusion operation.
- Describe general sidewall heat fusion of pipe and fittings.
- Observe safety precautions.
- Explain how to inspect sidewall fused joints.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0781 Joining of Plastic Pipe – Electrofusion

MEA Certificate Numbers **TNG – MEA11217**
 KNT – MEA1891
 PEF – MEA11054

Continuing Education Unit (CEU) 0.1**Course Description**

Fusion is the technique most commonly used to join plastic pipe. The electrofusion process, used to fuse pipe and fittings, will vary according to differences in equipment operation, weather conditions, and types of plastic pipe. The fusion process must be performed in accordance with written joining procedures to ensure strong, gas-tight joints.

Objectives

- List requirements for plastic pipe electrofusion.
- Explain preparation of joints and fittings for fusion operations.
- Verify pipe preparation.
- Describe how to perform general electrofusion process.
- Observe safety precautions.
- Explain how to inspect electrofused joints.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0791 Joining of Plastic Pipe – Socket

MEA Certificate Numbers **TNG – MEA11218**
 KNT – MEA1892
 PEF – MEA11055

Continuing Education Unit (CEU) 0.1**Course Description**

Fusion is the technique most commonly used to join plastic pipe. Socket heat fusion involves simultaneously heating the outside surface of a pipe end and the inside surface of a fitting socket. After both surfaces are properly melted, the two components are joined by inserting the pipe end into the socket. The melts flow together and fuse as the joint cools. The socket heat fusion process will vary according to differences in equipment operation, weather conditions, and types of plastic pipe. It must be performed in accordance with written joining procedures to ensure strong, gas-tight joints.

Objectives

- List requirements for plastic pipe socket heat fusion.
- Explain how to prepare pipe and fittings for fusion operations.
- Verify pipe preparation.
- Describe socket heat fusion process.
- Explain how to inspect socket fused joints.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0801 Welding

MEA Certificate Numbers **TNG – MEA11219**
 KNT – MEA1893
 PEF – MEA11056

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses the assembly and joining of steel pipe by welding, and the repair of welds, in accordance with welding procedures. Qualification should be in accordance with API 1104, ASME Section IX, Boiler and Pressure Vessel Code, or other acceptable standard or practice. This course does not include the visual inspection of welds or nondestructive testing.

Objectives

- Welding requirements.
- Assembly or fit-up of parts.
- Performing weld according to welding procedure.
- Recognizing weld defects.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0811 Visual Inspection of Welding and Welds

MEA Certificate Numbers **TNG – MEA11220**
 KNT – MEA1894
 PEF – MEA11057

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses inspection of pipeline welding activities and of completed welds to identify potentially dangerous conditions and visually detectable defects. Typical standards for measuring the acceptability of welds include API 1104 and ASME Section IX, Boiler and Pressure Vessel Code. Welders, inspectors, and the welding procedure must all be qualified according to federal regulations and the applicable cited standards.

Objectives

- Inspection criteria, code, and industry standards.
- Safety precautions related to welding and job-site safety.
- Verification of welding processes.
- Visual inspection of completed welds.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0821 Tubing & Fitting Installation – Instrument, Control and Sampling

MEA Certificate Numbers **TNG – MEA11221**
 KNT – MEA1895
 PEF – MEA11058

Continuing Education Unit (CEU) **0.1**

Course Description

Instrument tubing and fittings for control and sampling are typically designed and selected specifically for each system. Requirements are dependent on the type of facility, location, and operating pressure. Material and design are dependent on the specific application and selected joining methods. This course covers instrument tubing and fitting installation for control and sampling in a pipeline system.

Objectives

- Tubing and fitting requirements.
- Material selection.
- Preparation of tubing and fittings.
- Installation methods of tubing and fittings.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0831 Cast Iron – Caulked Bell and Spigot Joints – Installation and Maintenance of Mechanical Leak Clamp(s)

MEA Certificate Numbers **TNG – MEA11222**
 KNT – MEA1896
 PEF – MEA11059

Continuing Education Unit (CEU) **0.1**

Course Description

Cast iron mains have been in service for over 100 years. They generally consist of single, cast iron pipe segments that range from 12 to 20 feet in length. They are typically connected using bell and spigot joints commonly sealed via jute packing and a lead or cement plug between the bell and spigot. With the changeover of manufactured gas to natural gas, the potential for leakage has increased through the caulked bell and spigot joints. Mechanical leak clamps are typically used to stop this gas leakage. Therefore, this course covers the installation and maintenance of mechanical leak clamps on caulked bell and spigot joints; specific to cast iron pipe.

Objectives

- Identify potential leakage at cast iron bell and spigot joints.
- Identify federal regulations regarding cast iron pipe joints.
- Evaluation of cast iron pipe joints.
- Installation and repair of mechanical leak clamps.
- Recognize and react to abnormal operating conditions.

ASME – 0841 Cast Iron Joints

MEA Certificate Numbers **TNG – MEA11223**
 KNT – MEA1897
 PEF – MEA11060

Continuing Education Unit (CEU) **0.1**

Course Description

Cast iron mains, typically consisting of individually connected 12 to 20 foot cast iron segments, have been in service for over 100 years. They are typically connected using bell and spigot joints and commonly sealed via jute packing and a lead or cement plug between the bell and spigot. With the changeover of manufactured gas to natural gas, the potential for leakage has increased through the caulked bell and spigot joints. Encapsulation is a process used to permanently seal these leaky joints.

Objectives

- Identify and evaluate cast iron pipe joints.
- Understand encapsulation of cast iron pipe joints.
- Review requirements and regulations of cast iron pipe and joints.
- Properly install, pressurize, and test an encapsulation mold.
- Recognize and react to abnormal operating conditions.

ASME – 0851 Internal Sealing – Cast Iron and Ductile Iron

MEA Certificate Numbers **TNG – MEA11224**
 KNT – MEA1898
 PEF – MEA11061

Continuing Education Unit (CEU) **0.1**

Course Description

Cast iron and ductile iron pipe is still in service today. Although still practical, iron pipe has the potential to leak at the joints where old jute packing material has dried out. Internal sealing is an efficient and economical way to stop such leakage.

Objectives

- Perform different internal sealing methods.
- Identify internal sealing requirements.
- Recognize excavation and confined space safety issues.
- Locate and inspect for leaky joints.
- Recognize and react to abnormal operating conditions.

ASME – 0861 Installation of Steel Pipe in a Ditch

MEA Certificate Numbers TNG – MEA11225
 KNT – MEA1899
 PEF – MEA11062

Continuing Education Unit (CEU) 0.1

Course Description

This course discusses the handling, lowering in, and fitting of steel pipe in a ditch, after excavation is complete.

Objectives

- Identifying installation requirements.
- Proper pipe handling procedures.
- Visual inspection requirements.
- Providing firm pipe support.
- Pipe installation procedures.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0871 Installation of Steel Pipe in a Bore

MEA Certificate Numbers TNG – MEA11226
 KNT – MEA1900
 PEF – MEA11063

Continuing Education Unit (CEU) 0.1

Course Description

Trenchless excavation allows minimal excavation and disruption of services. This course discusses proper pipe handling, fabrication and installation via trenchless methods such as horizontal directional drilling, auger boring, impact moling, pipe ramming, pipe jacking and microtunneling.

Objectives

- Identifying installation requirements.
- Proper pipe handling procedures.
- Visual inspection requirements.
- Pipe installation procedures.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0881 Installation of Steel Pipe Plowing/Pull-in

MEA Certificate Numbers TNG – MEA11227
 KNT – MEA1901
 PEF – MEA11064

Continuing Education Unit (CEU) 0.1**Course Description**

Trenchless excavation allows minimal excavation and disruption of services. This course discusses proper handling and storage of pipe prior to installation, and trenchless installation via plowing/pull-in.

Objectives

- Identifying installation requirements.
- Proper pipe handling procedures.
- Visual inspection requirements.
- Pipe installation procedures.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0891 Field Bending of Steel Pipe

MEA Certificate Numbers **TNG – MEA11228**
 KNT – MEA1902
 PEF – MEA11065

Continuing Education Unit (CEU) 0.1**Course Description**

This course discusses the specifications and requirements for field bending of steel pipe, including the activities involved with inspecting, testing and maintaining completed field pipe bends.

Objectives

- Field pipe bending equipment.
- Field pipe bending requirements.
- Qualification of personnel performing field pipe bends.
- Various nondestructive testing methods.
- Corrective and preventive maintenance.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0901 Installation of Plastic Pipe in a Ditch

MEA Certificate Numbers **TNG – MEA11229**
 KNT – MEA1903
 PEF – MEA11066

Continuing Education Unit (CEU) 0.1**Course Description**

Plastic pipe is often used to transport gas in buried pipeline systems as it delivers exceptional value, unwavering reliability, and remarkable advantages over conventional types of piping. With superior resistance to corrosion and abrasion, plastic piping systems also supply long service life, excellent joint performance, and offer leak free

protection, all adding up to exceptional value. Plastic pipe is typically installed via direct burial or insertion. Some common installation methods include trenching, plowing, boring, and insertion in a casing or abandoned pipeline. Proper installation is key to pipeline integrity.

Objectives

- Proper handling of plastic pipe.
- Transportation and storage of plastic pipe.
- Installing plastic pipe in a ditch.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0911 Installation of Plastic Pipe in a Bore

MEA Certificate Numbers **TNG – MEA11230**
 KNT – MEA1904
 PEF – MEA11067

Continuing Education Unit (CEU) **0.1**

Course Description

Plastic pipe is often used to transport gas in buried pipeline systems as it delivers value, reliability, and advantages over conventional types of piping. With resistance to corrosion and abrasion, plastic piping systems also supply long service life, consistent joint performance, and offer leak free protection. Plastic pipe is typically installed via direct burial or insertion. Some common installation methods include trenching, plowing, boring, and insertion in a casing or abandoned pipeline. Proper installation is key to pipeline integrity.

Objectives

- Proper handling of plastic pipe.
- Transportation and storage of plastic pipe.
- Installing plastic pipe in a bore.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0921 Installation of Plastic Pipe Plowing/Pull-in

MEA Certificate Numbers **TNG – MEA11231**
 KNT – MEA1905
 PEF – MEA11068

Continuing Education Unit (CEU) **0.1**

Course Description

Plastic pipe is often used in buried pipeline procedures. It is easy to handle, durable, and more cost effective than traditional metal pipe. Plastic pipe can be installed either by direct burial or insertion methods.

Objectives

- Proper handling of plastic pipe.
- Transportation and storage of plastic pipe.
- Installing plastic pipe by plowing/pull-in method.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0931 Installation of Plastic Pipe by Plowing/Planting

MEA Certificate Numbers **TNG – MEA11232**
 KNT – MEA1906
 PEF – MEA11069

Continuing Education Unit (CEU) **0.1**

Course Description

Plastic pipe is often used to transport gas in buried pipeline systems as it delivers exceptional value, unwavering reliability, and remarkable advantages over conventional types of piping. Plastic pipe is typically installed via direct burial or insertion. Some common installation methods include trenching, plowing, boring, and insertion in a casing or abandoned pipeline. Proper installation is key to pipeline integrity.

Objectives

- Proper handling of plastic pipe.
- Transportation and storage of plastic pipe.
- Installing plastic pipe by plowing/planting.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0941 Install Tracer Wire

MEA Certificate Numbers **TNG – MEA11233**
 KNT – MEA1907
 PEF – MEA11070

Continuing Education Unit (CEU) **0.1**

Course Description

Buried plastic or polyethylene pipe is made of non-conductive material. In order to locate buried plastic pipe in the future, a tracer wire is buried along with the pipe.

Objectives

- What tracer wire is and why it is important in locating buried plastic pipe.
- The use of tracer wire and above ground equipment in locating buried plastic pipe.
- Requirements for selecting and installing tracer wire.
- Methods of installing and testing tracer wire.
- Abnormal or anticipated conditions that may be encountered.

ASME – 0951 Installation of Pipe Above Ground

MEA Certificate Numbers TNG – MEA11234
 KNT – MEA1908
 PEF – MEA11071

Continuing Education Unit (CEU) 0.1

Course Description

Above ground pipelines may be found at many different locations such as: pump and compressor stations, gate stations, meter/regulator stations, farm tap stations, some valve stations, river or bridge crossings, and at plant facilities.

Objectives

- Installation of above ground pipes.
- Handling of above ground pipes.
- Protection of above ground pipes.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0961 Above Ground Supports and Anchors – Inspection, Preventive and Corrective Maintenance

MEA Certificate Numbers TNG – MEA11235
 KNT – MEA1909
 PEF – MEA11072

Continuing Education Unit (CEU) 0.1

Course Description

This course discusses activities associated with verification of above ground supports and anchors.

Objectives

- Verification of correct installation.
- Requirements for repair, alteration, refurbishment, and replacement.
- Procedures for keeping all above ground supports and anchors functioning as specified.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0971 Installation and Maintenance of Casing Spacers, Vents and Seals

MEA Certificate Numbers TNG – MEA11236
 KNT – MEA1910
 PEF – MEA11073

Continuing Education Unit (CEU) 0.1

Course Description

This course discusses activities associated with casing spacers, vents, and seals.

Objectives

- Installation of casing spacers, vents, and seals.
- Evaluation of casing spacers, vents, and seals.
- Repair/replacement of casing spacers, vents, and seals.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0981 Backfilling

MEA Certificate Numbers **TNG – MEA11237**
 KNT – MEA1911
 PEF – MEA11074

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses safety and operating procedures for backfilling.

Objectives

- Trench safety.
- Inspecting backfill materials.
- Soil classification.
- Backfilling procedures.
- Proper pipe support.
- Soil compaction methods.
- Recognizing and reacting to abnormal operating conditions.

ASME – 0991 Coating Application and Repair – Brushed or Rolled

MEA Certificate Numbers **TNG – MEA11238**
 KNT – MEA1912
 PEF – MEA11075

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses surface preparation and application or repair of coatings using a brush or roller. Also included is information on the application of paint to inhibit corrosion, and internal or external application of coatings on pipes, tanks, etc.

Objectives

- Properly preparing the pipe surface for coating application.
- Applying epoxy and paint coatings by brush or roller.
- Inspecting applied coatings for defects.
- Recognizing and reacting to abnormal operating conditions.

ASME – 1001 Coating Application and Repair – Sprayed

MEA Certificate Numbers **TNG – MEA11239**
 KNT – MEA1913
 PEF – MEA11076

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses surface preparation and application or repair of coatings using a sprayer. Also included is information on the application of paint to inhibit corrosion, and internal or external application of coatings on pipes, tanks, etc.

Objectives

- Properly preparing the pipe surface for coating application.
- Applying epoxy and paint coatings by sprayer.
- Inspecting applied coatings for defects.
- Recognizing and reacting to abnormal operating conditions.

ASME – 1011 External Coating Application and Repair – Wrapped

MEA Certificate Numbers **TNG – MEA11240**
 KNT – MEA1914
 PEF – MEA11077

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses surface preparation and application or repair of coatings using a variety of hot and cold wrap-type solutions, including shrink wrap, wax, hot tar, tar mastic, tape, and epoxy melt stick.

Objectives

- Properly preparing the pipe surface for coating application.
- Coating application.
- Inspecting applied coatings for defects.
- Recognizing and reacting to abnormal operating conditions.

ASME – 1021 Apply or Repair Internal Coating Other Than By Brushing, Rolling or Spraying

MEA Certificate Numbers **TNG – MEA11241**
 KNT – MEA1915
 PEF – MEA11078

Continuing Education Unit (CEU) **0.1**

Course Description

Steps must be taken to minimize the corrosive effects of product being transported through a pipeline. The use of internal coatings is one way to help mitigate internal pipeline corrosion. There are several types of coatings used to prevent corrosion in steel pipelines. Typical methods of application include brush/roller, spray, and tape wrap. This course covers the "in situ" application or repair of internal coatings by pigging.

Objectives

- Surface preparation requirements.
- Application of internal coating by a method other than brushing, rolling or spraying.
- Internal coating inspection and repair requirements.
- Recognizing and reacting to abnormal operating conditions.

ASME – 1031 Install or Repair Internal Liner

MEA Certificate Numbers **TNG – MEA11242**
 KNT – MEA1916
 PEF – MEA11079

Continuing Education Unit (CEU) **0.1**

Course Description

Maintenance and prevention has become key when dealing with corroded underground pipes. Advances in pipeline technology have provided less invasive and cost reducing alternatives to the "cut and replace" method for pipe rehabilitation. One such advancement is the trenchless repair option of installing an internal pipe liner. This course discusses activities associated with the surface preparation, installation, repair and inspection of an internal liner.

Objectives

- Liner installation and repair requirement.
- Cleaning and preparing internal pipe surface.
- Liner installation methods and procedures.
- Visual inspection requirements.
- Recognizing and reacting to abnormal operating conditions.

ASME – 1041 Install Mechanical Clamps and Sleeves – Bolted

MEA Certificate Numbers **TNG – MEA11243**
 KNT – MEA1917
 PEF – MEA11080

Continuing Education Unit (CEU) **0.1**

Course Description

Bolted mechanical clamps and sleeves are used for in-service pipeline repairs when the typical out-of-service cut and replace technology is not feasible. This course discusses the preparation, installation and inspection of bolted mechanical clamps and sleeves.

Objectives

- Selecting and preparing clamp and sleeve.
- Preparing pipe for clamp and sleeve installation.
- Installation of clamp and sleeve.
- Recognizing and reacting to abnormal operating conditions.

ASME – 1051 Fit-up of Weld Type Repair Sleeve

MEA Certificate Numbers **TNG – MEA11244**
 KNT – MEA1918
 PEF – MEA11081

Continuing Education Unit (CEU) **0.1**

Course Description

Transporting fossil fuels through the pipeline is one of the safest transportation methods, but accidents and product loss can occur due to corrosion or third-party damage. Pipeline company goals are to repair or replace any defects before danger to humans, property, or the environment occurs. This course covers the preparation and fit-up of full encirclement welded split sleeves for pipeline repairs. (Actual welding of the sleeve is not part of this task).

Objectives

- Requirements for selecting weld type sleeves.
- Proper preparation of sleeves and pipe surface.
- Fit-up of weld type repair sleeves.
- Recognizing and reacting to abnormal operation conditions.

ASME – 1061 Install Composite Sleeves

MEA Certificate Numbers **TNG – MEA11245**
 KNT – MEA1919
 PEF – MEA11082

Continuing Education Unit (CEU) 0.1**Course Description**

This course discusses the preparation and installation of composite sleeves.

Objectives

- Sleeve selection and preparation requirements.
- Sleeve installation procedures.
- Recognizing and reacting to abnormal operating conditions.

ASME – 1071 Repair of Steel Pipe By Grinding

MEA Certificate Numbers **TNG – MEA11246**
 KNT – MEA1920
 PEF – MEA11083

Continuing Education Unit (CEU) 0.1**Course Description**

Pipelines transporting natural gas or hazardous liquids are subject to damage from excavators, internal or external corrosion and load transfers. Imperfections or damage to the wall of steel pipe can reduce its strength by reducing the overall wall thickness. As stated in Federal regulations, grinding can be an acceptable repair method for damaged or corroded steel pipe. This course discusses verification of minimum wall thickness requirements and removal of defects by grinding.

Objectives

- Wall thickness requirements.
- Removal of defects by grinding.
- Measuring wall thickness.
- Recognizing and reacting to abnormal operating conditions.

ASME – 1081 Tapping a Pipeline (Tap Diameter 2 Inch and Less)

MEA Certificate Numbers **TNG – MEA11247**
 KNT – MEA1921
 PEF – MEA11084

Continuing Education Unit (CEU) 0.1**Course Description**

Tapping is the process of creating an opening in a pipe. Tapping operations may be required as part of pipeline repair, segment replacement, or facility abandonment. Taps are also required in the connection of a new service branch, bypass creation, or installation of other system devices. This course covers tapping of a pipeline with a tap diameter of 2 inches and less.

Objectives

- Identify tapping safety requirements and precautions, as well as personnel qualifications.
- Understand requirements for line tapping preparation, including pipe measurements and inspections.
- Perform excavations, line verification, and tapping procedures.
- Recognize and properly react to abnormal operating conditions.

ASME – 1091 Tapping a Pipeline (Tap Diameter Greater than 2 Inch)

MEA Certificate Numbers **TNG – MEA11248**
 KNT – MEA1922
 PEF – MEA11085

Continuing Education Unit (CEU) **0.1**

Course Description

Tapping is the process of creating an opening in a pipe. Tapping operations may be required as part of pipeline repair, segment replacement, or facility abandonment. Taps are also required in the connection of a new service branch, bypass creation, or installation of other system devices. This course discusses tapping a pipeline with a tap diameter greater than 2 inches.

Objectives

- Required equipment to perform tapping and overview of basic operation.
- Tapping safety requirements and precautions, as well as personnel qualifications.
- Requirements for line tapping preparation, including pipe measurements and inspections.
- Performing excavations, line stopping, and tapping procedures.
- Recognizing and reacting to abnormal operating conditions.

ASME – 1101 Tapping a Pipeline with a Built-in Cutter

MEA Certificate Numbers **TNG – MEA11249**
 KNT – MEA1923
 PEF – MEA11086

Continuing Education Unit (CEU) **0.1**

Course Description

Special fittings that contain a built-in cutter are available for tapping steel or plastic pipe. The welding or fusion process used to attach the fitting to the pipe, and installation of a mechanical fitting, clamp or sleeve to the pipe, are tasks outside the scope of this course. This course discusses tapping a pipe with an already installed fitting that contains a built-in cutter.

Objectives

- Identifying tapping requirements.
- Performing the tap.

- Isolating the tap.
- Recognizing and reacting to abnormal operating conditions.

ASME – 1111 Tapping Cast and Ductile Iron Pipe, and Low Pressure Steel Pipe

MEA Certificate Numbers TNG – MEA11250
 KNT – MEA1924
 PEF – MEA11087

Continuing Education Unit (CEU) 0.1

Course Description

This course discusses tapping a low pressure pipe, with or without an installed fitting.

Objectives

- Identify tapping requirements.
- Install and remove tapping equipment.
- Perform tapping operations.
- Install threaded fittings and/or isolation plugs.
- Recognize and react to abnormal operating conditions.

ASME – 1121 Bagging and Stopping Low Pressure Pipe

MEA Certificate Numbers TNG – MEA11251
 KNT – MEA1925
 PEF – MEA11088

Continuing Education Unit (CEU) 0.1

Course Description

This course discusses the insertion and removal of bag stops and mechanical stoppers on low-pressure pipe.

Objectives

- Identify notification requirements.
- Complete notifications.
- Verify pipeline segments.
- Monitor pressure.
- Install and remove bags and stoppers.
- Recognize and react to abnormal operating conditions.

ASME – 1131 Stopper (Stopple) Pipe

MEA Certificate Numbers **TNG – MEA11252**
 KNT – MEA1926
 PEF – MEA11089

Continuing Education Unit (CEU) **0.1**

Course Description

Product flow sometimes needs to be stopped or redirected to allow workers to maintain or repair the pipeline. A stopple is one kind of device used to stop the flow.

Objectives

- Identify the requirements for stopping flow with a stopple.
- Describe how to identify segments that require stopping.
- Discuss the notifications that must be made before stopping a pipe.
- Describe how to install a stopple.
- Describe how to monitor pressure while the pipe is stopped.
- Describe how to remove a stopple.
- Discuss how to recognize and react to anticipated conditions and abnormal operating conditions.
- List documentation requirements.

ASME – 1141 Squeeze off Plastic Pipe

MEA Certificate Numbers **TNG – MEA11253**
 KNT – MEA1927
 PEF – MEA11090

Continuing Education Unit (CEU) **0.1**

Course Description

Certain pipeline situations may call for a temporary segment shutdown or pressure reduction. In these scenarios and others, a squeeze-off of plastic pipe may be required. Therefore, this course covers the activities associated with squeeze-off of plastic pipe.

Objectives

- Perform selection, installation, and removal of squeeze tools.
- Identify the correct parties to notify in case of pipeline shutdown.
- Ensure system pressure requirements are maintained.
- Purge pipeline as appropriate.
- Recognize and react to Abnormal Operating Conditions (AOCs).
- Create and maintain appropriate records and documentation.

ASME – 1151 Squeeze off Steel Pipe

MEA Certificate Numbers **TNG – MEA11254**
 KNT – MEA1928
 PEF – MEA11091

Continuing Education Unit (CEU) **0.1**

Course Description

Certain pipeline situations may call for a temporary segment shutdown or pressure reduction. In these scenarios and others, a squeeze-off of steel pipe may be required. Therefore, this course covers activities associated with the squeeze-off of steel pipe.

Objectives

- Select, install and remove squeeze-off tools.
- Properly identify and notify affected customers of pipeline shutdown.
- Ensure system pressure requirements are maintained.
- Purge pipeline as appropriate.
- Recognize and react to Abnormal Operating Conditions (AOCs).
- Complete and maintain proper documentation and records.

ASME – 1161 Installation of Customer Meters and Regulators – Residential and Small Commercial

MEA Certificate Numbers **TNG – MEA11255**
 KNT – MEA1929
 PEF – MEA11092

Continuing Education Unit (CEU) **0.1**

Course Description

When installing meter systems, it is important to be familiar with location, protection, support, connections and component specifications. Being able to correctly identify a customer meter, as well as knowing the proper regulator requirements, is critical. Properly testing meter sets for leakage, as well as how to test regulators and relief valves for proper operation are vital too.

Objectives

- Identify the components that comprise a meter set, including meters, regulators, and relief valves.
- List location considerations for proper installation and protection from damage of meter sets.
- Follow general meter set installation requirements.
- Execute correct procedures for the installation of customer meters, regulators, and where required, relief valves.
- Determine correct procedures for the testing of installed customer meters, regulators, and relief valves.
- Recognizing and reacting to abnormal operating conditions.

ASME – 1171 Installing Customer Meters – Large Commercial and Industrial

MEA Certificate Numbers **TNG – MEA11256**
 KNT – MEA1930
 PEF – MEA11093

Continuing Education Unit (CEU) **0.1**

Course Description

Commercial and industrial gas meters measure the volume of natural gas consumed by a particular customer. Commercial meter sets are very similar to residential applications, but are designed to facilitate gas flow rates and pressure ratings that are greater than standard residential meters. Many electronic meter systems are able to transmit volume measurements directly to the distribution company. This course covers the requirements and procedures for installing large commercial and industrial gas meters.

Objectives

- Identify commercial and industrial customer meter set components and functions.
- Comprehend proper meter selection and installation requirements.
- Perform installation and testing procedures.
- Recognize and react to abnormal operating conditions.

ASME – 1181 Installing and Maintaining Customer Pressure Regulating, Limiting, and Relief Device – Large Commercial & Industrial

MEA Certificate Numbers **TNG – MEA11257**
 KNT – MEA1931
 PEF – MEA11094

Continuing Education Unit (CEU) **0.1**

Course Description

Gas distribution systems are designed to operate at specific pressures. Commercial and industrial systems require pressure regulating, limiting, and relief devices in order to maintain specified pressures and prevent gas leaks and outages.

Objectives

- Recognize pressure requirements and devices implemented to maintain correct pipeline pressures.
- Identify installation location and material requirements.
- Perform installation, inspection, and maintenance procedures.
- Understand and perform set point verification and pressure testing.
- Recognize and react to abnormal operating conditions.

ASME – 1191 Maintenance of Service Valves Upstream of Customer Meter

MEA Certificate Numbers TNG – MEA11258
 KNT – MEA1932
 PEF – MEA11095

Continuing Education Unit (CEU) 0.1

Course Description

Service valves are used extensively in the pipeline industry. They may turn off or on product flow, vary the flow amount, direct the flow, regulate pressure and relieve overpressure. To keep them functioning properly, service valves require regular maintenance. This course will prepare you for various valve maintenance procedures upstream of customer meters.

Objectives

- Visually inspect service valves.
- Perform maintenance procedures on service valves.
- Isolate a valve.
- Remove and replace a valve.
- Recognize and react to anticipated conditions and abnormal operating conditions.
- List documentation requirements.

ASME – 1201 Temporary Isolation of Service Lines and Service Discontinuance

MEA Certificate Numbers TNG – MEA11259
 KNT – MEA1933
 PEF – MEA11096

Continuing Education Unit (CEU) 0.1

Course Description

Service lines are the link between the distributor's main line and the customer's business or residence. At times, these service lines need to be isolated or service needs to be discontinued. Isolating a service line may be necessary to allow for maintenance, repair, or replacement of line components.

Objectives

- Temporary isolation of service lines and service discontinuance.
- Isolating a service line or discontinuing service.
- Recognizing and reacting to anticipated conditions and abnormal operating conditions.
- Documentation requirements.

ASME – 1211 Odorization – Periodic Sampling

MEA Certificate Numbers TNG – MEA11260
 KNT – MEA1934
 PEF – MEA11097

Continuing Education Unit (CEU) 0.1

Course Description

Natural gas has no odor. Instead, odorants added to natural gas give it the familiar "gas smell" that warns people if there is a gas leak. Odorants are also added to specified combustible gases. To maintain an adequate warning system, odorization must be checked periodically to ensure the proper level of odorant is in the pipeline.

Objectives

- Identify requirements for conducting an odor intensity test.
- Describe how to perform an odorometer test.
- Discuss how to recognize and react to abnormal operating conditions that may be encountered when performing an odorometer test.
- Explain documentation requirements.

ASME – 1221 Odorization – Odorizer Inspection, Testing, Preventive and Corrective Maintenance

MEA Certificate Numbers TNG – MEA11261
 KNT – MEA1935
 PEF – MEA11098

Continuing Education Unit (CEU) 0.1

Course Description

This course discusses the functions of an odorizer after installation and the procedures to keep the odorizer operating safely and efficiently.

Objectives

- Identify requirements for odorizer inspection, testing, preventive and corrective maintenance.
- Check test equipment for proper operation.
- Visually inspect an odorizer.
- Explain odorizer evaluations.
- Perform preventive and corrective maintenance on an odorizer.
- Check odorant concentration.
- Adjust odorant output.
- Identify proper documentation requirements.
- Recognize and react to abnormal operating and anticipated conditions.

ASME – 1231 Inside Gas Leak Investigation

MEA Certificate Numbers TNG – MEA11262
 KNT – MEA1936
 PEF – MEA11099

Continuing Education Unit (CEU) 0.1

Course Description

This course discusses the investigation of reported or discovered leaks inside a building in relation to emergency response. This course also includes information on the initiation of precautionary actions (make safe procedures). Repairing, proving the integrity of customer piping, and lighting customer utilization equipment is NOT included.

Objectives

- Identifying investigation requirements.
- Performing test equipment checks.
- Initiating precautionary actions.
- Recognizing and reacting to abnormal operating conditions.

ASME – 1241 Outside Gas Leak Investigation

MEA Certificate Numbers TNG – MEA11263
 KNT – MEA1937
 PEF – MEA11100

Continuing Education Unit (CEU) 0.1

Course Description

This course discusses the investigation of reported or discovered leaks outside of buildings or other structures as well as the initiation of precautionary actions (make safe procedures).

Objectives

- Identifying investigation requirements.
- Inspecting and testing gas detection equipment.
- Initiating precautionary actions.
- Performing outside leak investigation.
- Recognizing and reacting to abnormal operating conditions.

ASME – 1251 Hazardous Liquid Leak Investigation

MEA Certificate Numbers TNG – MEA11264
 KNT – MEA1938
 PEF – MEA11101

Continuing Education Unit (CEU) 0.1

Course Description

Preventing serious damage or product loss due to hazardous liquid leakage often depends on the ability to quickly pinpoint the source of the leak. When computerized pipeline monitoring systems are not in place or a leak is undetectable by CPM, visual inspection is a must. Hazardous liquid leak investigations must determine the leakage area and attempt to discover the leak source.

Objectives

- Hazardous liquid leak investigation requirements.
- Overview of precautionary actions ("Make-Safe" procedures).
- Procedures for performing a hazardous liquid leak investigation.
- Potential problems and AOCs encountered during an investigation.

ASME – 1261 Walking Gas Leakage Survey

MEA Certificate Numbers **TNG – MEA11265**
 KNT – MEA1939
 PEF – MEA11102

Continuing Education Unit (CEU) **0.1**

Course Description

Due to the danger of gas leaks in a pipeline system, walking gas leakage surveys are periodically performed in locations not accessible by a vehicle or on mains in congested urban areas to discover leaks as soon as possible. Therefore, walking gas leakage surveys are an important part of timely leak identification.

Objectives

- Identify the main types of natural gas facilities.
- List and describe various leakage survey methods.
- Identify the requirements for leakage survey, including locations, frequency, and documentation.
- Describe how to perform gas detection equipment checks.
- Explain how to perform a walking gas leakage survey.
- Describe Make-Safe procedures.
- Recognizing and reacting to abnormal operating conditions.

ASME – 1271 Mobile Gas Leakage Survey – Flame Ionization

MEA Certificate Numbers **TNG – MEA11266**
 KNT – MEA1940
 PEF – MEA11103

Continuing Education Unit (CEU) **0.1**

Course Description

Gas leaks are dangerous and the process for identifying a leak is serious business. This course discusses the operation of conducting a mobile (other than walking) gas leakage survey utilizing flame ionization (FI) survey equipment and all the requirements and conditions that go with it.

Objectives

- Identify mobile leakage survey requirements.
- Perform an FI unit performance check.
- Conduct a mobile leakage survey using a FI unit.
- Recognize and react to Abnormal Operating Conditions (AOCs).

ASME – 1281 Mobile Gas Leakage Survey – Optical Methane

MEA Certificate Number **TNG – MEA11267**
 KNT – MEA1941
 PEF – MEA11104

Continuing Education Unit (CEU) **0.1**

Course Description

Gas leaks are dangerous, and the process for identifying a leak is serious business. This course covers the requirements and process of conducting a mobile (other than walking) gas leakage survey utilizing optical methane detector (OMD) survey equipment.

Objectives

- Identify mobile leakage survey requirements.
- Perform an OMD performance check.
- Conduct a mobile leakage survey using an OMD.
- Recognize and react to Abnormal Operating Conditions (AOCs).

ASME – 1291 Locate Underground Pipelines

MEA Certificate Numbers **TNG – MEA11268**
 KNT – MEA1942
 PEF – MEA11105

Continuing Education Unit (CEU) **0.1**

Course Description

Knowing the location of buried facilities prior to performing excavation activities is essential to prevent damage to underground utilities. Unintentional damage to underground facilities during excavation not only causes a significant amount of disruption, it can also threaten public safety. For this reason, temporary marking of all buried pipelines in the areas of excavation activity must be completed prior to the start of excavation.

Objectives

- One-Call requirements.
- Selecting a locating method.
- Testing and using locating equipment.
- Visually inspecting the locate area.
- Performing a locate.
- Placing temporary markers.
- Recognizing and reacting to abnormal operating conditions.

ASME – 1301 Install and Maintain Pipeline Markers

MEA Certificate Numbers **TNG – MEA11269**
 KNT – MEA1943
 PEF – MEA11106

Continuing Education Unit (CEU) **0.1**

Course Description

This course provides information on location, placement and maintenance of permanent pipeline markers.

Objectives

- Line marker requirements.
- Location, placement and installation of line markers.
- Recognizing Abnormal Operating Conditions associated with line markers.

ASME – 1311 Inspect Pipeline Surface Conditions – Patrol Right of Way or Easement

MEA Certificate Numbers **TNG – MEA11270**
 KNT – MEA1944
 PEF – MEA11107

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses performing right-of-way easement patrol (e.g., walking, flying or driving) to visually identify signs of leaks, encroachments, conditions of the right-of-way, or any other signs of potential impact to pipeline safety or integrity. This course also includes information on reporting of emergency conditions.

Objectives

- Pipeline safety standards.
- Natural gas and liquid pipeline patrol methods, requirements and preparation.
- Recognizing and reacting to abnormal operating conditions.

ASME – 1321 Damage Prevention During Excavation Activities By or On Behalf of the Operator

MEA Certificate Numbers TNG – MEA11271
 KNT – MEA1945
 PEF – MEA11108

Continuing Education Unit (CEU) 0.1

Course Description

Excavating is serious business as there are many hazards associated with trenching and excavation work. That's why it is critical to take safety precautions seriously when performing excavation activities. This course covers the task of damage prevention measures during excavation activities by or on behalf of the operator.

Objectives

- One-Call notification procedures.
- OSHA requirements and "best practices."
- Typical excavation hazards.
- Procedures for locating and properly marking buried facilities prior to excavation.
- Measures for exposing buried pipe before excavating.
- Damage prevention techniques and excavation standards.
- Recognizing and reacting to abnormal operating conditions.

ASME – 1331 Damage Prevention Inspection during Third Party Excavation of Encroachment Activities as Determined Necessary by Operator

MEA Certificate Numbers TNG – MEA11272
 KNT – MEA1946
 PEF – MEA11109

Continuing Education Unit (CEU) 0.1

Course Description

When an operator determines it is necessary to inspect third party excavations or encroachment activities, actions such as work stoppage and requiring proper support for operators' pipeline facility must be taken to protect the operators' facilities. Upon completion of this course, you will be familiar with requirements for performing inspections to ensure the act of damage prevention practices by a third party excavator.

Objectives

- Damage prevention inspection requirements.
- Identifying when leakage surveys or system patrolling should be performed.
- Monitoring area for settlement during and after excavation activities.
- Verifying system integrity during and after excavation activities.
- Recognizing and reacting to abnormal operating conditions.

ASME – 1341 Provide or Assure Adequate Pipeline Support during Excavation Activities

MEA Certificate Numbers **TNG – MEA11273**
 KNT – MEA1947
 PEF – MEA11110

Continuing Education Unit (CEU) **0.1**

Course Description

Pipelines can be used to deliver liquid and gaseous energy products such as steam, hot water, crude oil, natural gas, petroleum liquids, and hydrogen. To provide adequate pipeline support, the operator should be aware of the different types of support systems, installation and removal procedures, inspection requirements, as well as safety precautions. This course covers the steps necessary to provide or assure adequate pipeline support during operator initiated excavation activities.

Objectives

- Identify basic requirements for pipeline support.
- Understand different types of pipeline support systems.
- Describe installation, inspection, and removal requirements.
- Enact excavation / trench safety precautions.

ASME – 1351 Vault Inspection and Maintenance

MEA Certificate Numbers **TNG – MEA11274**
 KNT – MEA1948
 PEF – MEA11111

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses the inspection and maintenance of vaults with a volumetric internal content of 200 cubic feet or more and housing pressure regulating and limiting equipment. This includes the inspection of ventilating equipment, vault cover, sufficient drainage and structural integrity.

Objectives

- Verification requirements.
- Inspection of vaults, ventilating equipment, vault cover, sufficient drainage and structure.
- Maintenance tasks for vaults.
- Recognizing and reacting to abnormal operating conditions.

ASME – 1361 Station Emergency Shutdown System – Inspection, Testing and Corrective Maintenance

MEA Certificate Numbers **TNG – MEA11275**
 KNT – MEA1949
 PEF – MEA11112

Continuing Education Unit (CEU) **0.1**

Course Description

Emergency or safety shutdown systems, also known as safety instrumented systems, play a vital role in providing a protective layer around industrial processing systems. Pipeline processing stations that involve toxic or flammable product typically rely upon safety instrumented systems to protect against upsets or failures that may threaten worker safety, cause environmental concerns, or damage operating equipment. Therefore, these safety instrumented systems are designed for the purpose of mitigating risks and bringing the process to a safe state when unacceptable or dangerous process conditions are detected. This course covers the inspection, testing, and maintenance of such systems.

Objectives

- Identify emergency shutdown system requirements.
- Properly inspect safety shutdown devices.
- Conduct system performance or proof tests.
- Perform corrective maintenance on safety instrumented systems.
- Recognize and react to abnormal operating conditions.

ASME – 1371 Operate Gas Pipeline – System Control Center Operations

MEA Certificate Numbers **TNG – MEA11276**
 KNT – MEA1950
 PEF – MEA11113

Continuing Education Unit (CEU) **0.1**

Course Description

Monitoring and controlling pipeline operations helps ensure the safety of the public and the environment. It also protects the operating company's assets.

Objectives

- Identify the requirements for a gas pipeline System Control Center operations.
- Describe how to monitor pressure conditions from the System Control Center.
- Describe how to determine any required pressure adjustments.
- Discuss what notifications might be necessary before adjusting pressure.

- Discuss remote adjustments to:
 - Compressor operating parameters
 - Pressure regulator set points
 - Valves
- Describe how to direct manual adjustments.
- Describe how to verify that adjustments resulted in the system operating within required parameters.
- Discuss documentation requirements.
- Describe how to recognize and respond to anticipated and abnormal operating conditions.

ASME – 1381 Operate Gas Pipeline – Local Facility Remote – Control Operations

MEA Certificate Numbers **TNG – MEA11277**
 KNT – MEA1951
 PEF – MEA11114

Continuing Education Unit (CEU) **0.1**

Course Description

This course discusses the monitoring and controlling of pipeline operations to ensure the safety of the public and the environment. It also protects the operating company's assets.

Objectives

- Identify the requirements for a gas pipeline local facility remote-control operations.
- Describe how to monitor pressure conditions.
- Describe how to determine any required pressure adjustments.
- Discuss what notifications might be necessary before adjusting pressure.
- Discuss remote adjustments to:
 - Compressor operating parameters
 - Pressure regulator set points
 - Valves
- Describe how to direct manual adjustments.
- Describe how to verify that adjustments resulted in the system operating within required parameters.
- Discuss documentation requirements.
- Describe how to recognize and respond to anticipated and abnormal operating conditions.

ASME – 1391 Operate Liquids Pipeline – System Control Center Operations

MEA Certificate Numbers **TNG – MEA11278**
 KNT – MEA1952
 PEF – MEA11115

Continuing Education Unit (CEU) **0.1**

Course Description

Monitoring and controlling pipeline operations helps ensure the safety of the public and environment. It also protects company assets. Upon completion of this course, you will be able to identify the requirements for System Control Center operations of a liquid pipeline.

Objectives

- Monitor requirements for parameters such as pressure, temperature, and flow.
- Determine any required adjustments to system operations.
- Verify what notifications might be necessary before adjusting system operations.
- Identify requirements for making adjustments remotely and manually.
- Verify that adjustments resulted in the system are operating within required parameters.
- Review documentation requirements.
- Recognize and respond to anticipated and abnormal operating conditions.

ASME – 1401 Operate Liquids Pipeline – Local Facility Remote – Control Operations

MEA Certificate Numbers **TNG – MEA11279**
 KNT – MEA1953
 PEF – MEA11116

Continuing Education Unit (CEU) **0.1**

Course Description

Monitoring and controlling pipeline operations helps ensure the safety of the public and the environment. It also protects company assets. Upon completion of this course, you will be able to identify the requirements for local facility remote-control operations of a liquid pipeline.

Objectives

- Requirements for monitoring pressure, temperature, and flow.
- Required adjustments to bring local facility operations within prescribed parameters.
- Notifications required before stopping, starting, or adjusting settings.
- Requirements for making adjustments remotely or directing manual adjustments for pumps, auxiliary equipment, regulating equipment, or valves.
- How to verify that adjustments resulted in the system operating within required parameters.
- Documentation requirements.
- How to recognize and respond to anticipated and abnormal operating conditions.

ASME – 1411 Indirect Inspection Techniques

MEA Certificate Numbers **TNG – MEA11280**
 KNT – MEA1954
 PEF – MEA11117

Continuing Education Unit (CEU) 0.1**Course Description**

Corrosion threatens the integrity of pipeline systems. Indirect inspections look for faults in the pipeline's protective coating, assess the cathodic protection system, and examine the pipeline environment. Done properly, your indirect inspections contribute to the overall safety of the pipeline.

Objectives

- Identify the requirements for conducting an indirect inspection.
- Explain how to check test equipment, and describe potential problems.
- Describe indirect inspection techniques.
- Discuss how to recognize and react to potential abnormal operating conditions.
- List documentation requirements.

ASME – 1421 Direct Examination Techniques

MEA Certificate Numbers **TNG – MEA11281**
 KNT – MEA1955
 PEF – MEA11118

Continuing Education Unit (CEU) 0.1**Course Description**

Corrosion is a constant threat to pipeline systems. Direct examinations test pipeline integrity and the threat of corrosion. Done, properly, direct examinations contribute to overall safety of the pipeline.

Objectives

- Identify the requirements for conducting a direct examination.
- Check test equipment and recognize potential problems.
- Perform direct examination techniques.
- Recognize and react to potential abnormal operating conditions.
- Describe documentation requirements.

ASME – 1631 Launching-Receiving Pigs for Lines Out-of-Service

MEA Certificate Numbers **TNG – MEA11743**
 KNT – MEA11742
 PEF – MEA11738

Continuing Education Unit (CEU) 0.1**Course Description**

Pipeline pre-commissioning is a main reason for pigging lines out-of-service. It is the process of proving a pipeline's ability to contain product without leaking and involves a series of steps carried out before the final product is introduced.

Objectives

- Prepare for pigging lines out-of-service
- Off-line pigging operations
- Abnormal Operating Conditions

ASME – 1641 Launching-Receiving Pigs for Lines In-Service

MEA Certificate Numbers **TNG – MEA11745**
 KNT – MEA11744
 PEF – MEA11739

Continuing Education Unit (CEU) **0.1**

Course Description

A large network of pipelines transports natural gas, crude oil, and other refined products across the nation. Maintaining pipeline integrity and ensuring the efficient, economical, and safe transportation of these products is of great importance. Use of pipeline inspection gauges (PIGs) is one of the principal methods used to ensure efficient pipeline operation. Some pigs are used to clean pipes or help batch products while others, such as "smart pigs", are used to measure things like pipe thickness and corrosion to detect metal loss along the pipeline for integrity management purposes. This course covers pipeline pigging operations, practices, and equipment used in launching and receiving pigs for lines in-service in order to clean, inspect, batch and plug pipelines for effective and efficient operation.

Objectives

- Perform pipeline pigging operations.
- Identify pig types and pigging components.
- Recognize operator responsibilities.
- Implement certain pigging activities.
- Recognize and react to abnormal operating conditions.

ASME – 1651 Purging of Flammable or Inert Gas

MEA Certificate Numbers **TNG – MEA11747**
 KNT – MEA11746
 PEF – MEA11740

Continuing Education Unit (CEU) **0.1**

Course Description

Gas piping design, operation, and purging responsibilities require a very specialized level of expertise. A number of high-profile explosions related to careless errors and improper purging practices have brought these issues to the forefront for many organizations. Beyond the risk of death and injury, gas pipeline purging incidents can cause extensive property damage worth millions of dollars, cause significant lost production time, and irreversibly damage

a company's reputation. Therefore, an established purging process is best followed to ensure a safe and complete purge.

Objectives

- Identify code requirements, proper purging procedures, and potential hazards.
- Perform pre-purge, purge, and post-purge activities.
- Recognize different purge factors such as pressure, rate, velocity, time, and mediums.
- Identify appropriate purging equipment.
- Properly purge pipelines in-and-out of service.
- Recognize and react to anticipated and abnormal operating conditions.

ASME – 1661 Purge: Hazardous Liquids

MEA Certificate Numbers **TNG – MEA11741**
 KNT – MEA11749
 PEF – MEA11748

Continuing Education Unit (CEU) **0.1**

Course Description

Purging hazardous liquid pipeline contents is considered a hazardous activity as the process can create an explosive atmosphere if not performed properly. Therefore, it is best to understand the process of purging liquid pipelines and the possible dangers involved.

Objectives

- Recognize different types and characteristics of hydrocarbon liquids.
- Recognize different types and characteristics of hydrocarbon liquids.
- Identify appropriate hazardous liquid purge procedures and how to minimize potential hazards.
- Be aware of proper purging reasons, requirements, preparations, and precautions.