Level One

MODULE 66101-02 – INTRODUCTION TO THE PIPELINE INDUSTRY
1. Explain the basic functions and purposes of pipelines and facilities and identify the characteristics and hazards of common pipeline products.
2. Identify maps and drawings used to depict pipelines and facilities.
3. Explain the roles of control personnel and equipment in the overall operation of a pipeline.
4. Explain liquid pipeline hydraulics and gas pipeline pneumatics.
5. Explain the types and purposes of pipeline equipment.
6. Explain pipeline electrical power systems and corrosion control.
7. Review operations, maintenance, and emergency procedures and perform documentation required for pipeline operations.

MODULE 66102-02 – LIQUID PIPELINE GENERAL ABNORMAL OPERATING CONDITIONS
1. Recognize and react to abnormal facility conditions.
2. Recognize and react to activation of a safety device.
3. Recognize and react to communications failures.
4. Recognize and react to power interruptions.
5. Respond appropriately to fire, explosions, and natural disasters.
6. Recognize and react to pipeline system damage.
7. Recognize and react to unexpected hazardous liquid or carbon dioxide (CO2) leaks.
8. Recognize and react to unexplained pressure deviations.

MODULE 62103-02 – RELEASE IDENTIFICATION AND RESPONSE
1. Describe company environmental manuals and regulations.
2. Describe United States Coast Guard responsibilities.
3. Describe spill prevention.
4. Recognize soil contamination.
5. Explain spill reporting and spill containment.

MODULE 62104-02 – TOOLS OF THE TRADE
1. Use and maintain hand and power tools.
2. Identify and explain the use of welding equipment.
3. Explain the use of meters and testers.
4. Explain the use of nondestructive testing tools.
5. Identify and explain the use of lifting and excavation equipment.
MODULE 62105-02 – PIPELINE DOCUMENTATION

1. Read alignment sheets.
2. Identify and explain documentation processes and forms.

MODULE 62106-02 – PREVENTING PIPELINE DAMAGE (CT 14 AND 28)

1. Explain the One-Call system.
2. Perform tasks to prevent third-party and in-house damage (CT 28).
3. Explain public awareness activities.
4. Place and maintain permanent line markers (CT 14).

MODULE 62107-02 – EXCAVATING AND BACKFILLING

1. Explain OSHA requirements for excavating.
2. Explain locating pipelines (CT 17).
3. Explain permits.
4. Explain exposing pipeline.
5. Explain damage inspection.
6. Explain reporting obvious defects.
7. Explain water inspection.
8. Explain backfilling (CT 39).
MODULE 62201-02 – RIGHT-OF-WAY INSPECTION (CT 15 AND 16)
1. Inspect navigable water crossings (CT 16).
2. Perform vehicle/foot and aerial patrols.
3. Inspect surface conditions of the right-of-way (CT 15).

MODULE 62202-02 – FACILITY INSPECTION (CT 27)
1. Inspect facilities (buildings).
2. Perform routine monthly inspections of breakout tanks (CT 27.1).
3. Perform inspections of in-service breakout tanks (CT 27.2).
4. Perform vault inspection and maintenance.

MODULE 62203-02 – VALVE INSPECTION (CT 20)
1. Identify the types of valves used to start and stop flow on a pipeline.
2. Identify the types of valves used to regulate flow on a pipeline.
3. Identify and explain the functions of the various types of relief valves.
4. Perform a routine walk-around valve inspection and an external integrity inspection (CT 20.1 and 20.2).
5. Function test and leak test a valve (CT 20.3 and 20.4).
6. Perform preventative maintenance on pipeline valves.
7. Perform regular lubrication of valves, and winterize valves.
8. Install threaded and flanged valves.

MODULE 62204-02 – PIPELINE COATING INSPECTION (CT 5)
1. Identify pipeline coating types, and describe characteristics.
2. Identify pipeline coating problems (CT 5.1).
3. Inspect pipeline coating for damage (CT 5.3).
4. Inspect pipeline coating for external corrosion (CT 5.2).

MODULE 62205-02 – PIPE INSPECTION AND NONDESTRUCTIVE TESTING (CT 38.1, 38.2, AND 38.3)
1. Identify types of NDE testing.
2. Prepare welds for NDE testing.
3. Visually inspect pipe and pipe components (CT 38.1).
4. Direct/verify a nondestructive weld test (CT 38.2).
5. Visually inspect that welds meet DOT requirements (CT 38.3)

MODULE 62206-02 – PIPELINE MAINTENANCE (CT 18 AND 52)
1. Locate underground structures
2. Maintain the pipeline route.
3. Excavate utilities and pipeline components.
4. Apply coatings.
5. Perform flange tightening.
6. Run pigs and perform maintenance pigging.
7. Inspect the pipeline following excavation activities, and perform a leakage survey after blasting (CT 18).
8. Conduct a leakage survey of a natural gas pipeline (CT 52).
1. Explain the purpose of hydrostatic testing.
2. Prepare for hydrostatic testing.
3. Perform hydrostatic testing procedures (CT 41).
Level Three

MODULE 62301-02 – GENERAL MAINTENANCE & WINTERIZING PIPELINE EQUIPMENT

1. Explain preventive and predictive maintenance.
2. Perform general maintenance on rotating equipment.
3. Maintain pumps and prime movers.
4. Maintain tank mixers.
5. Winterize pipelines and equipment.

MODULE 62302-02 – PIPELINE DAMAGE INSPECTION (CT 34 AND 35)

1. Identify types and sources of pipeline damage.
2. Check problem areas for pipeline integrity (CT 34 and 35).

MODULE 62303-02 – PERFORMING IN-LINE INSPECTIONS (CT 29)

1. Complete preparations for pigging.
2. Identify types of smart pigs.
3. Run pigs (CT 29).
4. Follow up on collected data.

MODULE 62304-02 – PIPELINE REPAIR (CT 9.5, 37, 40.1-40.5, 40.7, AND 40.91)

1. Install pipe sleeves (CT 40.1, 40.2, 40.4, 40.5).
2. Install clock springs (CT 40.3).
3. Cut out and replace pipe.
4. Perform 2” tap (CT 40.7, 40.91).
5. Repair shorted casing (CT 9.5).
6. Install and repair support structures (CT 37).
7. Repair insulation.

MODULE 62305-02 – RELOCATING AND LOWERING PIPELINES (CT 33 AND 34)

1. Perform preparation for moving pipeline.
2. Explain in-service and out-of-service pipeline (CT 33.1 and 33.2).
3. Perform movement of the pipeline (CT 33.3).
4. Inspect the pipeline (CT 34).
5. Backfill the excavation.

MODULE 62306-02 – HOT TAPPING AND STOPPLING® – 2.5″ AND LARGER (CT 40.6, 40.8, 40.9, AND 40.91)

1. Explain hot tap safety and potential hazards.
2. Identify and install fittings used with hot taps (CT 40.6).
3. Explain the use of hot tap machines (CT 40.8).
4. Identify and explain the use of stopples (CT 40.9, 40.91).
MODULE 62307-02 – TANK REPAIR

1. Tighten tank connection flanges and perform tank hot tapping.
2. Perform nondestructive testing on tanks.
3. Perform flange electrical insulating and welding on tanks.
4. Repair and replace tank bottoms.
5. Move tanks for repair and repair arc burns and welds.
6. Perform roof installation.
7. Demolish and build internal/external floating roof tanks.
8. Replace in-service seals on floating roof tanks and remove/install nozzles, manways, and sumps.

MODULE 62308-02 – MAINTENANCE WELDING ON PIPELINES (CT 42)

1. Repair arc burns (CT 42.1).
2. Repair defective welds (CT 42.2).
3. Repair direct pass defects (CT 42.3).
4. Repair butt welds (CT 42.4).
5. Repair previously repaired welds (CT 42.5).
6. Replace a weld or cylinder of pipe (CT 42.6).
7. Explain general welding procedures.
8. Deal with problems when found.

MODULE 62309-02 – PERFORMING PIPELINE DISCONNECTION PROCEDURES (CT 36)

1. Perform the safe disconnect of pipeline facilities (CT 36.1).
2. Purge pipeline facilities (CT 36.2).
3. Seal a disconnected portion of pipeline (CT 36.3).

MODULE 62310-02 – VAULT MAINTENANCE AND CONFINED SPACE ENTRY (CT 59)

1. Explain confined space entry hazards.
2. Perform confined space entry safety requirements.
3. Perform vault inspections (CT 59).
Level Four

MODULE 62401-03 – RADIOGRAPHIC TESTING OF PIPELINE WELDS

1. Describe how X-ray and gamma ray techniques are used in the examination of pipe welds.
2. List the safety procedures and identify the detection devices used to ensure the safety of persons working with or near radiographic testing.
3. Describe in detail the exposure techniques used in radiographic testing.
4. Explain the equipment and methods used in processing radiographic film.
5. List the main requirements for radiographic testing defined in API 1104.
6. Demonstrate to the satisfaction of the instructor the ability to expose and process radiographic film. (CT 38.4)
7. Demonstrate to the satisfaction of the instructor the ability to recognize and identify weld conditions by examining radiographic film of pipe welds. (CT 38.4)