



Pipeline Maintenance

L1 PIPELINE MAINTENANCE



LEVEL 1

REVISED!

Curriculum Notes

- 67.5 Hours
- Revised: 2013, Second Edition
- Instructor's Resource Access Card includes access code to download detailed lesson plans, module exams, PowerPoint® slides, performance profile sheets and TestGen software.

PAPERBACK

ISBN

Trainee Guide: \$100

ISBN 978-0-13-378290-5

Instructor's Res. Access Card: \$100 ISBN 978-0-13-378297-4

MODULES

All of the modules listed below are included in the Trainee and Instructor Guide(s) listed above. The following ISBN and pricing information is for ordering individual modules only.

Introduction to the Pipeline Industry (10 Hours)

Trainee \$20

ISBN 978-0-13-378736-8

Instructor \$20

ISBN 978-0-13-378744-3

(Module 66101-13) Describes the functions, purposes, and components of pipelines, the products that are transported, and the ways in which they move through the pipeline.

Field Abnormal Operating Conditions (10 Hours)

Trainee \$20

ISBN 978-0-13-375468-1

Instructor \$20

ISBN 978-0-13-359280-1

(Module ID 71101-14) Provides an overview of the types of abnormal operating conditions (AOCs) that may occur on the pipeline or in company facilities. Appropriate responses to AOCs are covered with a focus on following company policy to protect lives and pipeline equipment. Also covered are the reports required by federal law.

Release Identification and Response (5 Hours)

Trainee \$20

ISBN 978-0-13-378738-2

Instructor \$20

ISBN 978-0-13-378745-0

(Module ID 62103-13) Describes the identification of and response to the release of product or crude.

Tools of the Trade (7.5 Hours)

Trainee \$20

ISBN 978-0-13-378739-9

Instructor \$20

ISBN 978-0-13-378747-4

(Module ID 62104-13) Describes use and care of the hand and power tools that are used in the pipeline industry. It also describes the use of welding equipment and the use of meters and testers. Explains nondestructive testing and the uses of lifting equipment and heavy excavating equipment.

Introduction to Pipeline Documents (5 Hours)

Trainee \$20

ISBN 978-0-13-378740-5

Instructor \$20

ISBN 978-0-13-378748-1

(Module ID 62105-13) Describes the different types of documents required in the pipeline industry.

Line Location and Marking (CTs 14 and 17)

(15 Hours)

Trainee \$20

ISBN 978-0-13-378741-2

Instructor \$20

ISBN 978-0-13-378749-8

(Module ID 62106-13) Describes the notification process used to prevent pipeline damage, the methods for locating pipelines, and the process for marking pipelines.

Inspect Navigable Water Crossings (CT16)

(7.5 Hours)

Trainee \$20

ISBN 978-0-13-378743-6

Instructor \$20

ISBN 978-0-13-378763-4

(Module ID 62108-13) Describes the process for inspecting navigable waterway crossings, and reviews reportable observations and reporting procedures for these inspections.

Surface Right-of-Way Inspection (CT 15)

(7.5 Hours)

Trainee \$20

ISBN 978-0-13-378742-9

Instructor \$20

ISBN 978-0-13-378750-4

(Module ID 62109-13) Describes the process of inspecting right-of-ways by aerial, vehicle, and foot patrols, what constitutes a reportable observation, and proper reporting procedures.

L2 PIPELINE MAINTENANCE

LEVEL 2

Curriculum Notes

REVISED!

- 75 Hours
- To Be Revised: Fall 2014, Second Edition
- Instructor's Resource Access Card includes access code to download detailed lesson plans, module exams, PowerPoint® slides, performance profile sheets and TestGen software.

PAPERBACK

ISBN

Trainee Guide: \$100

ISBN 978-0-13-383046-0

Instructor's Res. Access Card: \$100 ISBN 978-0-13-383051-4

MODULES

All of the modules listed below are included in the Trainee and Instructor Guide(s) listed above. The following ISBN and pricing information is for ordering individual modules only.

Inspect Mainline Valves (CT 20) (7.5 Hours)

Trainee \$20

ISBN 978-0-13-384193-0

Instructor \$20

ISBN 978-0-13-384202-9

(Module ID 62203-14) Discusses procedures for inspecting mainline valves and performing basic preventative maintenance.

Tubing (7.5 Hours)

Trainee \$20

ISBN 978-0-13-384194-7

Instructor \$20

ISBN 978-0-13-378767-2

(Module ID 62208-14) Introduces types of tubing, tools, and work practices used in pipeline applications. Covers proper storage and handling, cutting, bending, and installation of tubing.

Security and Facility Inspections (2.5 Hours)

Trainee \$20

ISBN 978-0-13-384195-4

Instructor \$20

ISBN 978-0-13-378768-9

(Module ID 62209-14) Covers inspection of pipeline facilities, including security systems and other building systems.

Breakout Tank Inspection (CT 27.1) (7.5 Hours)

Trainee \$20

ISBN 978-0-13-384196-1

Instructor \$20

ISBN 978-0-13-378769-6

(62202-14) Covers inspections of tanks and tank farms.

Leak Survey Techniques (CT 18 and 52) (12.5 Hours)

Trainee \$20

ISBN 978-0-13-384201-2

Instructor \$20

ISBN 978-0-13-378773-3

(Module ID 62206-14) Covers techniques for performing leak surveys on liquid and gas pipelines. Includes basic pipeline maintenance issues such as underground structures on the pipeline, maintaining the pipeline route, excavating utilities and pipeline components safely and properly, applying coating, tightening flanges, and running maintenance pigs.

Threaded Pipe (15 Hours)

Trainee \$20

ISBN 978-0-13-384197-8

Instructor \$20

ISBN 978-0-13-378770-2

(Module ID 62210-14) Describes the materials used in threaded piping systems. Explains how to determine pipe lengths between threaded pipe fittings, prepare the pipe and fittings for fit-up, and assemble the piping system.

Mudplugging (5 Hours)

Trainee \$20

ISBN 978-0-13-384199-2

Instructor \$20

ISBN 978-0-13-378771-9

(Module ID 62211-14) Covers how mud plugs are used to isolate vapors on 6" and larger pipe diameters. Includes techniques for mixing and installing mud plugs.

Excavating and Backfilling (CT 32 and 39)

(17.5 Hours)

Trainee \$20

ISBN 978-0-13-384200-5

Instructor \$20

ISBN 978-0-13-378772-6

(Module ID 62212-14) Identifies the permits required and the procedures for exposing pipe and performing damage inspection. Discusses reporting defects, water inspections, and backfilling.

Ordering information for *Pipeline Maintenance*, First Edition:

PAPERBACK

ISBN

Trainee Guide: \$100

ISBN 978-0-13-046678-5

Instructor's Guide: \$100

ISBN 978-0-13-046679-2

L3 PIPELINE MAINTENANCE

LEVEL 3

Curriculum Notes

- 202.5 Hours
- Published: 2002
- Revision underway. Due in stock 2015.
- Instructor's Guide includes access code to download TestGen software, module exams, and performance profile sheets from www.nccerirc.com.

PAPERBACK

ISBN

Trainee Guide: \$100

ISBN 978-0-13-101077-2

Instructor's Guide: \$100

ISBN 978-0-13-101078-9

MODULES

All of the modules listed below are included in the Trainee and Instructor Guide(s) listed above. The following ISBN and pricing information is for ordering individual modules only.

General Maintenance and Winterizing

Pipeline Equipment (7.5 Hours)

Trainee \$20

ISBN 978-0-13-103156-2

Instructor \$20

ISBN 978-0-13-103166-1

(Module ID 62301-02) Explains preventive and predictive maintenance and general maintenance on rotating machinery. Discusses gas compressors and maintaining pumps and prime movers.



Pipeline Maintenance Level 3 (continued)

Pipeline Damage Inspection (CT 34 and 35)

(10 Hours)

Trainee \$20 ISBN 978-0-13-103157-9
Instructor \$20 ISBN 978-0-13-103167-8

(Module ID 62302-02) Identifies sources and types of damage, including construction, third-party, natural events, and blasting. Covers checking pipe clearance and repairing wide cracks and foam damage.

Performing In-Line Inspections (CT 29) (15 Hours)

Trainee \$20 ISBN 978-0-13-103158-6
Instructor \$20 ISBN 978-0-13-103168-5

(Module ID 62303-02) Explains the preparation for pigging, types of pigs and associated tools, and running pigs. Includes following up on collected data, such as interpreting findings.

Pipeline Repair

(CT 9.5, 37, 40.1, 40.2, 40.3, 40.4, 40.5, 40.7, and 40.91)
(40 Hours)

Trainee \$20 ISBN 978-0-13-103159-3
Instructor \$20 ISBN 978-0-13-103170-8

(Module ID 62304-02) Covers the proper procedures for several pipeline repairs. Includes information on installing various types of pipe sleeves, cutting and replacing sections of pipe, performing taps of two inches or smaller, and repairing shorted casings.

Relocating and Lowering Pipelines

(CT 33 and 34) (15 Hours)

Trainee \$20 ISBN 978-0-13-103160-9
Instructor \$20 ISBN 978-0-13-103171-5

(Module ID 62305-02) Explains preparations for moving pipelines, both in-service and out-of-service, procedures for moving pipelines, inspecting the line, and backfilling the excavation.

Hot Tapping and Stopping® - 2.5" and Larger

(CT 40.6, 40.8, 40.9, and 40.91) (15 Hours)

Trainee \$20 ISBN 978-0-13-103161-6
Instructor \$20 ISBN 978-0-13-103172-2

(Module ID 62306-02) Discusses hot tapping procedures, including safety issues, selection of equipment, and preparation for tapping. Covers installing tapping machines, and stopping procedures.

Tank Repair (40 Hours)

Trainee \$20 ISBN 978-0-13-103162-3
Instructor \$20 ISBN 978-0-13-103173-9

(Module ID 62307-02) Explains complete tank repair, including flange tightening, nondestructive testing, electrically insulated fittings and flanges, welding, bottom repair, bottom replacement, moving, arc burn and weld repair, roof installation, shell plate replacement, aluminum and steel floating roof demolition, building a floating roof, floating roof in-service seal replacement, and nozzles, manways, and sumps.

Maintenance Welding on Pipelines (CT 42)

(25 Hours)

Trainee \$20 ISBN 978-0-13-103163-0
Instructor \$20 ISBN 978-0-13-103174-6

(Module ID 62308-02) Covers repairing arc burns, defective welds, direct pass defects, butt welds, and previously repaired welds. Includes weld or cylinder of pipe replacement, general welding procedures, and dealing with problems. Also discusses the requirements for inspection of maintenance welds on pipelines.

Performing Pipeline Disconnection Procedures

(CT 36) (20 Hours)

Trainee \$20 ISBN 978-0-13-103164-7
Instructor \$20 ISBN 978-0-13-103175-3

(Module ID 62309-02) Identifies equipment and procedures required to safely perform disconnection procedures and hazards that may be encountered. Explains performing safe disconnects, purging pipeline segments, and sealing disconnected pipeline.

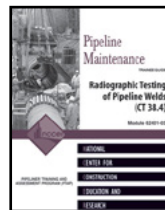
Vault Maintenance and Confined Space Entry

(CT 59) (15 Hours)

Trainee \$20 ISBN 978-0-13-103165-4
Instructor \$20 ISBN 978-0-13-103176-0

(Module ID 62310-02) Identifies safety requirements and hazards of confined space entry. Discusses vault inspections.

Radiographic Testing of Pipeline Welds



(CT 38.4) 25 Hours
Published: 2003
Module ID 62401-03

Trainee: \$20 ISBN 978-0-13-106800-1
Instructor: \$20 ISBN 978-0-13-106801-8

Provides specific training for certified SNT-TC-1A Level II radiographic technicians who perform radiographic testing of pipeline welds. Recognition of specific discontinuities using copies of radiographic images is featured.