# Pipeline Maintenance

**L1 PIPELINE MAINTENANCE**

**Curriculum Notes**
- 157.5 Hours (Includes 72.5 hours of Core Curriculum which is a prerequisite for Level One completion and must be purchased separately. See p. 10 for ordering information.)
- Published: 2002
- A full-color revision is underway and due in stock late 2013.

<table>
<thead>
<tr>
<th>PAPERBACK</th>
<th>ISBN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainee Guide: $100</td>
<td>978-0-13-046676-1</td>
</tr>
<tr>
<td>Instructor’s Guide: $100</td>
<td>978-0-13-046677-8</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Module</th>
<th>ISBN</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to the Pipeline Industry</td>
<td>978-0-13-038223-8</td>
<td>15</td>
</tr>
<tr>
<td>Liquid Pipeline General Abnormal Operating Conditions</td>
<td>978-0-13-038224-5</td>
<td>5</td>
</tr>
<tr>
<td>Tools of the Trade</td>
<td>978-0-13-038309-9</td>
<td>10</td>
</tr>
<tr>
<td>Preventing Pipeline Damage</td>
<td>978-0-13-038312-9</td>
<td>15</td>
</tr>
<tr>
<td>Excavating and Backfilling</td>
<td>978-0-13-038313-6</td>
<td>17.5</td>
</tr>
</tbody>
</table>

**Tools of the Trade** (10 Hours)
- Trainee $20
- Instructor $20
  - (Module ID 62104-02) Describes use and care of hand and power tools used in the pipeline industry. Describes the use of welding equipment and meters and testers. Also discusses nondestructive testing and the uses of hydraulic cranes and heavy excavating equipment.

**Preventing Pipeline Damage** (15 Hours)
- Trainee $20
- Instructor $20
  - (Module ID 62106-02) Describes the one-call system and how it is used to prevent pipeline damage. Identifies and explains the methods used to prevent third-party and employee-caused pipeline damage. Explains the importance of public awareness. Includes placing and maintaining permanent line markers and providing security for pipeline facilities.

**Excavating and Backfilling** (17.5 Hours)
- Trainee $20
- Instructor $20
  - (Module ID 62107-02) Explains the methods used to prevent pipeline damage. Identifies and explains the procedures for exposing pipe and performing damage inspection. Discusses reporting defects, water inspections, and backfilling.

<table>
<thead>
<tr>
<th>Module</th>
<th>ISBN</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right-of-Way Inspection</td>
<td>978-0-13-038310-5</td>
<td>20</td>
</tr>
<tr>
<td>Facility Inspection</td>
<td>978-0-13-038321-1</td>
<td>17.5</td>
</tr>
<tr>
<td>Valve Inspection</td>
<td>978-0-13-038322-8</td>
<td>22.5</td>
</tr>
</tbody>
</table>

**L2 PIPELINE MAINTENANCE**

**Curriculum Notes**
- 155 Hours
- Published: 2002

<table>
<thead>
<tr>
<th>PAPERBACK</th>
<th>ISBN</th>
</tr>
</thead>
</table>

**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.

<table>
<thead>
<tr>
<th>Module</th>
<th>ISBN</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to the Pipeline Industry</td>
<td>978-0-13-038222-8</td>
<td>20</td>
</tr>
<tr>
<td>Liquid Pipeline General Abnormal Operating Conditions</td>
<td>978-0-13-038224-5</td>
<td>20</td>
</tr>
<tr>
<td>Right-of-Way Inspection</td>
<td>978-0-13-038310-5</td>
<td>20</td>
</tr>
<tr>
<td>Facility Inspection</td>
<td>978-0-13-038321-1</td>
<td>20</td>
</tr>
<tr>
<td>Valve Inspection</td>
<td>978-0-13-038322-8</td>
<td>20</td>
</tr>
</tbody>
</table>

**Right-of-Way Inspection** (CT 15 and 16) (20 Hours)
- Trainee $20
- Instructor $20
  - (Module ID 62201-02) Discusses inspection of pipeline right-of-way. Includes methods to prevent pipeline damage. Explains the importance of public awareness. Includes placing and maintaining permanent line markers and providing security for pipeline facilities.

**Facility Inspection** (CT 27) (17.5 Hours)
- Trainee $20
- Instructor $20
  - (Module ID 62202-02) Discusses inspection of pipeline right-of-way. Explains the importance of public awareness. Includes placing and maintaining permanent line markers and providing security for pipeline facilities.

**Valve Inspection** (CT 20) (22.5 Hours)
- Trainee $20
- Instructor $20
  - (Module ID 62203-02) Discusses inspection of pipeline right-of-way. Explains the importance of public awareness. Includes placing and maintaining permanent line markers and providing security for pipeline facilities.

---

To Order Call: 1-800-922-0579
Stay Connected: [Facebook](https://www.facebook.com) [Twitter](https://twitter.com)
Online Catalog: [www.nccer.org/catalog](http://www.nccer.org/catalog)
Pipeline Maintenance level 2 (continued)

Pipeline Coating Inspection (CT 5) (20 Hours)
Instructor $20 ISBN 978-0-13-038330-0
(Module ID 62204-02) Describes different types of pipeline coatings, and methods of application. Covers basic pipeline coating problems and inspection of pipeline coating.

Pipe Inspection and Nondestructive Testing (CT 38.1, 38.2, and 38.3) (25 Hours)
Instructor $20 ISBN 978-0-13-038332-4
(Module ID 62205-02) Outlines methods of pipe inspection for liquid petroleum pipelines. Discusses requirements for visual inspections of pipe, pipe components, and welds on pipe. Also discusses different methods of nondestructive testing and evaluation on pipelines, including liquid penetrant, magnetic particle, ultrasonic, and radiographic tests. Procedures for verifying nondestructive weld tests and verifying that the weld meets mandated requirements are also given.

Pipeline Maintenance (CT 18 and 52) (32.5 Hours)
Instructor $20 ISBN 978-0-13-038334-1
(Module ID 62206-02) Presents basic pipeline maintenance issues. Includes information and procedures on locating underground structures on the pipeline, maintaining the pipeline route, excavating utilities and pipeline components safely and properly, applying coating, tightening flanges, running maintenance pigs, and performing leak surveys on liquid and gas pipelines.

Hydrostatic Testing (CT 41) (17.5 Hours)
(Module ID 62207-02) Explains the principles and requirements of hydrostatic testing on pipelines. Explains necessary preparations for testing, and describes the testing procedures.

General Maintenance and Winterizing

Pipeline Equipment (7.5 Hours)
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 Damage Inspection (CT 34 and 35) (10 Hours)
(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)
(Module ID 62303-02) Discusses hot tapping procedures, 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)
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)
(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)
(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)
(Module ID 62307-02) Explains complete tank repair, including flange tightening, nondestructive testing, electrically insulated fittings and flanges, welding, butt 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)
(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)
Instructor $20 ISBN 978-0-13-103176-0
(Module ID 62310-02) Identifies safety requirements and hazards of confined space entry. Discusses vault inspections.

To Order Call: 1-800-922-0579  Stay Connected:  Online Catalog: www.nccer.org/catalog

[Image: Online Catalog: www.nccer.org/catalog]