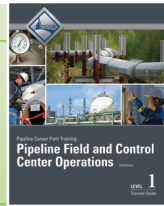




# Pipeline Field and Control Center Operations

## L1 PIPELINE FIELD AND CONTROL CENTER OPERATIONS



LEVEL 1

### Curriculum Notes

- 115 Hours
- Revised: 2017, Third Edition
- Downloadable instructor resources that include module tests, PowerPoints®, and performance profile sheets are available at [www.nccer.org/irc](http://www.nccer.org/irc).

### PAPERBACK

ISBN

Trainee Guide: \$100      **978-0-13-480570-2**  
 Instructor's Guide: \$100      **978-0-13-480837-6**

### MODULES

All of the modules listed below are included in the Trainee and Instructor Guide(s) listed above. The following pricing information is for ordering individual modules which can be purchased through the online bookstore at [www.nccer.org/bookstore](http://www.nccer.org/bookstore).

#### Quality Control and Measurement (20 Hours)

Trainee \$20      ISBN 978-0-13-038240-5  
 Instructor \$20      ISBN 978-0-13-038257-3  
 (Module ID 67106-02) Focuses on the importance of quality control and accurate measurement as they affect safety, customer service, and the company's reputation. Topics include taking samples, performing product testing, and product testing and measurement tools.

#### Product Batch and Pig Tracking (10 Hours)

Trainee \$20      ISBN 978-0-13-038228-3  
 Instructor \$20      ISBN 978-0-13-038238-2  
 (Module ID 60104-02) Describes how to track pipeline product line inventories; handle scheduled pipeline shipments; identify product interface changes; and launch, receive, and track pigs through the pipeline and facility.

#### Field Quality Control (15 Hours)

Trainee \$20      ISBN 978-0-13-038231-3  
 Instructor \$20      ISBN 978-0-13-038242-9  
 (Module ID 60107-02) Introduces field quality control procedures including activation of tank mixing devices, collection of product samples, product testing, pipeline switching, product blending operations, and injection of appropriate additives.

#### Field Measurement (20 Hours)

Trainee \$20      ISBN 978-0-13-038232-0  
 Instructor \$20      ISBN 978-0-13-038243-6  
 (Module ID 60108-02) Introduces techniques used in field measurement of products in the pipeline, including measurement components, types of meters, measurement of custody transfers and receipts, verification of meter accuracy, waterdraw calibration techniques, and utilization of tank strappings.

### Liquid Pipeline Measurement and Quality Control (20 Hours)

Trainee \$20      ISBN 978-0-13-038264-1  
 Instructor \$20      ISBN 978-0-13-038273-3  
 (Module ID 65107-02) Explains how to activate tank mixing devices, perform product testing, and perform pipeline grade changes and tank capacity operations. Also explains how to use and inject appropriate additives, identify types of meters, maintain accurate measurement on all custody receipts, and the processes and techniques used to prove meters.

### SCADA (30 Hours)

Trainee \$20      ISBN 978-0-13-103147-0  
 Instructor \$20      ISBN 978-0-13-103155-5  
 (Module ID 64307-02) Explains pipeline operations systems, including control, communications, SCADA, and PLCs. Explains redundant systems and control system troubleshooting.

## L2 PIPELINE OPERATIONS (CONTROL CENTER/GAS/LIQUID)

LEVEL 2

### Curriculum Notes

- 110 Hours
- Revised: 2017, Third Edition
- Downloadable instructor resources that include module tests, PowerPoints®, and performance profile sheets are available at [www.nccer.org/irc](http://www.nccer.org/irc).
- Available as print on demand
- To purchase individual covered task modules, please visit [www.nccer.org/pipeline-program](http://www.nccer.org/pipeline-program)

### PAPERBACK

ISBN

Trainee Guide: \$100      **978-0-13-472539-0**

### MODULES

All of the modules listed below are included in the Trainee Guide. The following pricing information is for ordering individual modules which can be purchased through the online bookstore at [www.nccer.org/bookstore](http://www.nccer.org/bookstore).

#### Abnormal Operating Conditions - Control Center (5 Hours)

(Module ID AOCCC-17)  
 Trainee \$20      ISBN 978-0-13-472782-0  
 Instructor \$20      ISBN 978-0-13-472783-7

#### Abnormal Operating Conditions - Field and Gas (5 Hours)

(Module ID AOFCF-17)  
 Trainee \$20      ISBN 978-0-13-472784-4  
 Instructor \$20      ISBN 978-0-13-472785-1

#### Purge Gas from a Pipeline (5 Hours)

(Module ID CT50\_0-17)  
 Trainee \$20      ISBN 978-0-13-472786-8  
 Instructor \$20      ISBN 978-0-13-472787-5

#### Purge Air from a Gas Pipeline (5 Hours)

(Module ID CT51\_0-17)  
 Trainee \$20      ISBN 978-0-13-472789-9  
 Instructor \$20      ISBN 978-0-13-472792-9

### Test Remotely Controlled Shutdown Devices (5 Hours)

(Module ID CT54\_0-17)  
 Trainee \$20      ISBN 978-0-13-472790-5  
 Instructor \$20      ISBN 978-0-13-472793-6

### Perform Incremental Pressure Increases to Uprate the MAOP (5 Hours)

(Module ID CT56\_0-17)  
 Trainee \$20      ISBN 978-0-13-472791-2  
 Instructor \$20      ISBN 978-0-13-472794-3

### Operate Odorant Equipment (5 Hours)

(Module ID CT57\_0-17)  
 Trainee \$20      ISBN 978-0-13-472795-0  
 Instructor \$20      ISBN 978-0-13-472797-4

### Monitor Odorant Level (5 Hours)

(Module ID CT58\_0-17)  
 Trainee \$20      ISBN 978-0-13-472798-1  
 Instructor \$20      ISBN 978-0-13-472799-8

### Start-up of a Liquid Pipeline (Field) (5 Hours)

(Module ID CT63\_1-17)  
 Trainee \$20      ISBN 978-0-13-472800-1  
 Instructor \$20      ISBN 978-0-13-472808-7

### Shutdown of a Liquid Pipeline (Field) (5 Hours)

(Module ID CT63\_2-17)  
 Trainee \$20      ISBN 978-0-13-472801-8  
 Instructor \$20      ISBN 978-0-13-472802-5

### Monitor Pressures, Flows, Communications, and Line Integrity and Maintain Them Within Allowable Limits on a Liquid Pipeline System (Field) (15 Hours)

(Module ID CT63\_3-17)  
 Trainee \$20      ISBN 978-0-13-472803-2  
 Instructor \$20      ISBN 978-0-13-472805-6

### Locally Operate Valves on a Liquid Pipeline System (5 Hours)

(Module ID CT63\_4-17)  
 Trainee \$20      ISBN 978-0-13-472806-3  
 Instructor \$20      ISBN 978-0-13-472807-0

### Start-up of a Liquid Pipeline (Control Center) (5 Hours)

(Module ID CT64\_1-17)  
 Trainee \$20      ISBN 978-0-13-472809-4  
 Instructor \$20      ISBN 978-0-13-472810-0

### Shutdown of a Liquid Pipeline (Control Center) (5 Hours)

(Module ID CT64\_2-17)  
 Trainee \$20      ISBN 978-0-13-472811-7  
 Instructor \$20      ISBN 978-0-13-472813-1

### Monitor Pressures, Flows, Communications, and Line Integrity and Maintain Them Within Allowable Limits on a Liquid Pipeline System (Control Center) (5 Hours)

(Module ID CT64\_3-17)  
 Trainee \$20      ISBN 978-0-13-472814-8  
 Instructor \$20      ISBN 978-0-13-472815-5



## Pipeline Operations (Control Center/Gas/Liquid) Level 2

### **Remotely Operate Valves on a Liquid Pipeline System** (5 Hours)

(Module ID CT64\_4-17)

Trainee \$20

ISBN 978-0-13-472816-2

Instructor \$20

ISBN 978-0-13-472817-9

### **Start-up of a Gas Pipeline** (5 Hours)

(Module ID CT65\_1-17)

Trainee \$20

ISBN 978-0-13-472818-6

Instructor \$20

ISBN 978-0-13-472819-3

### **Shutdown of a Gas Pipeline** (5 Hours)

(Module ID CT65\_2-17)

Trainee \$20

ISBN 978-0-13-472821-6

Instructor \$20

ISBN 978-0-13-472822-3

### **Monitor Pressures, Flows, Communications and Line Integrity and Maintain Them Within Allowable Limits (Gas)** (5 Hours)

(Module ID CT65\_3-17)

Trainee \$20

ISBN 978-0-13-472823-0

Instructor \$20

ISBN 978-0-13-472824-7

### **Manually or Remotely Open or Close Valves or Other Equipment** (5 Hours)

(Module ID CT65\_4-17)

Trainee \$20

ISBN 978-0-13-472825-4

Instructor \$20

ISBN 978-0-13-472826-1