

<b>L2 POWER LINE WORKER: DISTRIBUTION</b>	
LEVEL 2	
<b>Curriculum Notes</b>	
<ul style="list-style-type: none"> <li>• 157.5 Hours</li> <li>• Published: 2011</li> <li>• Downloadable instructor resources that include module tests, PowerPoints®, and performance profile sheets are available at <a href="http://www.nccer.org/irc">www.nccer.org/irc</a>.</li> </ul>	
<b>PAPERBACK</b>	<b>ISBN</b>
Trainee Guide: \$99.99	978-0-13-273034-1

### MODULES

The modules listed below are included in the Trainee Guide. The following ISBNs are for ordering individual modules only.

### Alternating Current and Three-Phase Systems

(17.5 Hours)

ISBN 978-0-13-274259-7

(Module ID 80201-11) Introduces the development of both single- and three-phase alternating current. Analyzes the relationship of AC phases and introduces key components used to refine AC power. Discusses the operation of transformers and introduces advanced AC concepts such as reactive power and the power factor.

### Aerial Distribution Equipment

(25 Hours)

ISBN 978-0-13-274260-3

(Module ID 80202-11) Identifies the various equipment components found on overhead distribution system poles and describes the function of each, including transformers, reclosers, fuses, sectionalizers, capacitor banks, and voltage regulators.

### Cable and Conductor Installation and Removal

(20 Hours)

ISBN 978-0-13-274261-0

(Module ID 80203-11) Describes the types of conductors and cables used in overhead and underground residential distribution systems and the equipment and procedures used to install and remove them. Includes methods used to splice conductors.

### Underground Residential Distribution (URD) Systems

(30 Hours)

ISBN 978-0-13-274263-4

(Module ID 80204-11) Describes the methods used to distribute power in residential and commercial subdivisions, including the equipment used in the process, such as pad-mount transformers and switchgear. Covers the components and methods used to connect primary and secondary power, as well as the protective devices used in URD systems and methods used to locate and repair buried cables.

### Overhead and URD Service Installations

(15 Hours)

ISBN 978-0-13-274264-1

(Module ID 80205-11) Describes the methods and procedures used in terminating single-phase and three-phase aerial and URD systems at residential and commercial customer locations. Includes coverage of revenue meters and street light connections.

### Distribution Line Maintenance

(50 Hours)

ISBN 978-0-13-274265-8

(Module ID 80206-11) Describes the inspection process and the methods and procedures used to inspect and maintain poles, conductors, and equipment used in aerial and URD systems. Includes coverage of transformer testing; location and correction of faults in URD systems; load management systems; and protective device coordination.

<b>L3 POWER LINE WORKER: DISTRIBUTION</b>	
LEVEL 3	
<b>Curriculum Notes</b>	
<ul style="list-style-type: none"> <li>• 145 Hours</li> <li>• Published: 2012</li> <li>• Downloadable instructor resources that include module tests, PowerPoints®, and performance profile sheets are available at <a href="http://www.nccer.org/irc">www.nccer.org/irc</a>.</li> </ul>	
<b>PAPERBACK</b>	<b>ISBN</b>
Trainee Guide: \$99.99	978-0-13-294865-4

### MODULES

The modules listed below are included in the Trainee Guide. The following ISBNs are for ordering individual modules only.

### Introduction to Substations

(10 Hours)

ISBN 978-0-13-296779-2

(Module ID 82201-12; from *Power Line Worker: Substation Level Two*) Provides an overview of the different types and functions of substations. Identifies the various voltage classes and introduces the primary equipment and components found in substations. Safe work practices and access issues related to substations are presented, as well as an introduction to one-line diagrams.

### Live-Line Work

(40 Hours)

ISBN 978-0-13-296759-4

(Module ID 80301-12) Covers tools such as hot sticks, shotgun sticks, and wire tongs, along with the PPE and safe work practices that are critical elements of live line and bare hand work. Includes coverage of various live-line tasks such as different methods of moving conductors and replacing insulators, cross-arms, and poles.

### Three-Phase URD Systems

(25 Hours)

ISBN 978-0-13-296760-0

(Module ID 80302-12) Covers safety practices associated with three-phase URD systems; describes vault and manhole applications; and explains different transformer configurations and sectionalizing equipment used in three-phase URD systems. Also covers three-phase cables and how cable is pulled through conduit.

### System Protection and Monitoring

(7.5 Hours)

ISBN 978-0-13-296761-7

(Module ID 80303-12) Presents an overview of monitoring and protection systems and reviews the key components that make them work. Describes feeder diagrams and their use in locating and identifying components.

### Troubleshooting

(40 Hours)

ISBN 978-0-13-296762-4

(Module ID 80304-12) Focuses on the methods used to safely locate and correct faults in aerial and URD systems. Includes troubleshooting methods as well as work site preparation.

### Introduction to Smart Grids

(2.5 Hours)

ISBN 978-0-13-296763-1

(Module ID 80305-12) Describes the network of transmission and distribution lines that delivers electricity between generating sources and consumers, and explains how the smart grid overlays this network to maintain a balance between power availability and demand.

### Fundamentals of Crew Leadership

(20 Hours)

ISBN 978-0-13-292245-6

(Module ID 46101-11, Second Edition) Covers basic leadership skills and explains different leadership styles, communication, delegating, and problem solving. Jobsite safety and the crew leader's role in safety are discussed, as well as project planning, scheduling, and estimating. Includes performance tasks to assist the learning process.

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