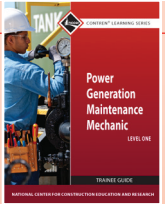




# Power Generation Maintenance Mechanic

## L1 POWER GENERATION MAINTENANCE MECHANIC



LEVEL 1

### Curriculum Notes

- 225 Hours (Includes 100 hours of *Power Industry Fundamentals*, which is a prerequisite for Level 1 completion and must be purchased separately. See p. 83 for more information.)
- Published: 2010
- Please note that these modules are drawn as is from other craft areas. To order modules individually, refer to the specific craft page for ISBNs.
- Instructor's Guide includes access code to download TestGen software, module exams, PowerPoints®, and performance profile sheets from [www.nccerirc.com](http://www.nccerirc.com).

### PAPERBACK

### ISBN

Trainee Guide: \$67      **978-0-13-215439-0**  
 Instructor's Guide: \$67      **978-0-13-215440-6**

### MODULES

#### Tools of the Trade (5 Hours)

(Module ID 32102-07; from *Industrial Maintenance Mechanic Level One*)  
 Trainee \$20      ISBN 978-0-13-614584-4  
 Instructor \$20      ISBN 978-0-13-614564-6

#### Fasteners and Anchors (5 Hours)

(Module ID 32103-07; from *Industrial Maintenance Mechanic Level One*)  
 Trainee \$20      ISBN 978-0-13-614585-1  
 Instructor \$20      ISBN 978-0-13-614565-3

#### Oxyfuel Cutting (17.5 Hours)

(Module ID 32104-07; from *Industrial Maintenance Mechanic Level One*)  
 Trainee \$20      ISBN 978-0-13-614586-8  
 Instructor \$20      ISBN 978-0-13-614566-0

#### Gaskets and Packing (10 Hours)

(Module ID 32105-07; from *Industrial Maintenance Mechanic Level One*)  
 Trainee \$20      ISBN 978-0-13-614588-2  
 Instructor \$20      ISBN 978-0-13-614567-7

#### Craft-Related Mathematics (15 Hours)

(Module ID 32106-07; from *Industrial Maintenance Mechanic Level One*)  
 Trainee \$20      ISBN 978-0-13-614589-9  
 Instructor \$20      ISBN 978-0-13-614568-4

#### Construction Drawings (12.5 Hours)

(Module ID 32107-07; from *Industrial Maintenance Mechanic Level One*)  
 Trainee \$20      ISBN 978-0-13-614590-5  
 Instructor \$20      ISBN 978-0-13-614604-9

#### Pumps and Drivers (5 Hours)

(Module ID 32108-07; from *Industrial Maintenance Mechanic Level One*)  
 Trainee \$20      ISBN 978-0-13-614591-2  
 Instructor \$20      ISBN 978-0-13-614605-6

#### Valves (5 Hours)

(Module ID 32109-07; from *Industrial Maintenance Mechanic Level One*)  
 Trainee \$20      ISBN 978-0-13-614592-9  
 Instructor \$20      ISBN 978-0-13-614606-3

#### Introduction to Test Instruments (7.5 Hours)

(Module ID 32110-07; from *Industrial Maintenance Mechanic Level One*)  
 Trainee \$20      ISBN 978-0-13-614593-6  
 Instructor \$20      ISBN 978-0-13-614607-0

#### Material Handling and Hand Rigging (15 Hours)

(Module ID 32111-07; from *Industrial Maintenance Mechanic Level One*)  
 Trainee \$20      ISBN 978-0-13-614594-3  
 Instructor \$20      ISBN 978-0-13-614608-7

#### Mobile and Support Equipment (10 Hours)

(Module ID 32112-07; from *Industrial Maintenance Mechanic Level One*)  
 Trainee \$20      ISBN 978-0-13-614560-8  
 Instructor \$20      ISBN 978-0-13-614609-4

#### Lubrication (12.5 Hours)

(Module ID 32113-07; from *Industrial Maintenance Mechanic Level One*)  
 Trainee \$20      ISBN 978-0-13-614562-2  
 Instructor \$20      ISBN 978-0-13-614611-7

#### SMAW Equipment and Setup (5 Hours)

(Module ID 29107-09; from *Welding Level One*)  
 Trainee \$20      ISBN 978-0-13-610533-6  
 Instructor \$20      ISBN 978-0-13-610547-3

## L2 POWER GENERATION MAINTENANCE MECHANIC

LEVEL 2

### Curriculum Notes

- 260 Hours
- Published: 2010
- Please note that these modules are drawn as is from other craft areas. To order modules individually, refer to the specific craft page for ISBNs.
- Instructor's Guide includes access code to download TestGen software, module exams, PowerPoints®, and performance profile sheets from [www.nccerirc.com](http://www.nccerirc.com).

### PAPERBACK

### ISBN

Trainee Guide: \$97      **978-0-13-215441-3**  
 Instructor's Guide: \$97      **978-0-13-215408-6**

### MODULES

#### Basic Layout (20 Hours)

(Module ID 32201-07; from *Industrial Maintenance Mechanic Level Two*)  
 Trainee \$20      ISBN 978-0-13-604621-9  
 Instructor \$20      ISBN 978-0-13-604668-4

#### Advanced Trade Math (30 Hours)

(Module ID 32301-08; from *Industrial Maintenance Mechanic Level Three*)  
 Trainee \$20      ISBN 978-0-13-604681-3  
 Instructor \$20      ISBN 978-0-13-604656-1

#### Precision Measuring Tools (20 Hours)

(Module ID 32302-08; from *Industrial Maintenance Mechanic Level Three*)  
 Trainee \$20      ISBN 978-0-13-604682-0  
 Instructor \$20      ISBN 978-0-13-604657-8

#### Introduction to Bearings (15 Hours)

(Module ID 32207-07; from *Industrial Maintenance Mechanic Level Two*)  
 Trainee \$20      ISBN 978-0-13-604627-1  
 Instructor \$20      ISBN 978-0-13-604674-5

#### Installing Bearings (20 Hours)

(Module ID 32303-08; from *Industrial Maintenance Mechanic Level Three*)  
 Trainee \$20      ISBN 978-0-13-604683-7  
 Instructor \$20      ISBN 978-0-13-604658-5

#### Installing Couplings (15 Hours)

(Module ID 32304-08; from *Industrial Maintenance Mechanic Level Three*)  
 Trainee \$20      ISBN 978-0-13-604684-4  
 Instructor \$20      ISBN 978-0-13-604659-2

#### Installing Mechanical Seals (20 Hours)

(Module ID 32308-08; from *Industrial Maintenance Mechanic Level Three*)  
 Trainee \$20      ISBN 978-0-13-604689-9  
 Instructor \$20      ISBN 978-0-13-604699-8

#### Conventional Alignment (30 Hours)

(Module ID 32306-08; from *Industrial Maintenance Mechanic Level Three*)  
 Trainee \$20      ISBN 978-0-13-604686-8  
 Instructor \$20      ISBN 978-0-13-604662-2

#### Reverse Alignment (30 Hours)

(Module ID 32404-09; from *Industrial Maintenance Mechanic Level Four*)  
 Trainee \$20      ISBN 978-0-13-610448-3  
 Instructor \$20      ISBN 978-0-13-610459-9

#### Laser Alignment (25 Hours)

(Module ID 32405-09; from *Industrial Maintenance Mechanic Level Four*)  
 Trainee \$20      ISBN 978-0-13-610449-0  
 Instructor \$20      ISBN 978-0-13-610460-5

#### Installing Belt and Chain Drives (10 Hours)

(Module ID 32307-08; from *Industrial Maintenance Mechanic Level Three*)  
 Trainee \$20      ISBN 978-0-13-604688-2  
 Instructor \$20      ISBN 978-0-13-604663-9

#### Introduction to Piping Components (5 Hours)

(Module ID 32202-07; from *Industrial Maintenance Mechanic Level Two*)  
 Trainee \$20      ISBN 978-0-13-604622-6  
 Instructor \$20      ISBN 978-0-13-604669-1

#### Copper and Plastic Piping Practices (5 Hours)

(Module ID 32203-07; from *Industrial Maintenance Mechanic Level Two*)  
 Trainee \$20      ISBN 978-0-13-604623-3  
 Instructor \$20      ISBN 978-0-13-604670-7



## Power Generation Maintenance Mechanic Level 2 (continued)

### Introduction to Ferrous Metal Piping Practices

(5 Hours)

(Module ID 32204-07; from *Industrial Maintenance Mechanic Level Two*)

Trainee \$20 ISBN 978-0-13-604624-0  
Instructor \$20 ISBN 978-0-13-604671-4

### Identify, Install and Maintain Valves

(10 Hours)

(Module ID 32205-07; from *Industrial Maintenance Mechanic Level Two*)

Trainee \$20 ISBN 978-0-13-604625-7  
Instructor \$20 ISBN 978-0-13-604672-1

## L3 POWER GENERATION MAINTENANCE MECHANIC

LEVEL 3

### Curriculum Notes

- 155 Hours
- Published: 2010
- Please note that these modules are drawn as is from other craft areas. To order modules individually, refer to the specific craft page for ISBNs.
- Instructor's Guide includes access code to download TestGen software, module exams, PowerPoints®, and performance profile sheets from [www.nccerirc.com](http://www.nccerirc.com).

### PAPERBACK

ISBN

Trainee Guide: \$97 978-0-13-215409-3  
Instructor's Guide: \$97 978-0-13-215410-9

## MODULES

### Low-Pressure Steam Systems

(10 Hours)

(Module ID 32208-07; from *Industrial Maintenance Mechanic Level Two*)

Trainee \$20 ISBN 978-0-13-604628-8  
Instructor \$20 ISBN 978-0-13-604675-2

### High-Pressure Steam Systems and Auxiliaries

(20 Hours)

(Module ID 32209-07; from *Industrial Maintenance Mechanic Level Two*)

Trainee \$20 ISBN 978-0-13-604664-6  
Instructor \$20 ISBN 978-0-13-604676-9

### Heaters, Furnaces, Heat Exchangers, Cooling Towers and Fin Fans

(30 Hours)

(Module ID 32211-07; from *Industrial Maintenance Mechanic Level Two*)

Trainee \$20 ISBN 978-0-13-604666-0  
Instructor \$20 ISBN 978-0-13-604679-0

### Hydrostatic and Pneumatic Testing

(10 Hours)

(Module ID 32206-07; from *Industrial Maintenance Mechanic Level Two*)

Trainee \$20 ISBN 978-0-13-604626-4  
Instructor \$20 ISBN 978-0-13-604673-8

### Installing Fans and Blowers

(10 Hours)

(Module ID 15312-08; from *Millwright Level Three*)

Trainee \$20 ISBN 978-0-13-604771-1  
Instructor \$20 ISBN 978-0-13-604784-1

### Conveyors

(5 Hours)

(Module ID 15401-08; from *Millwright Level Four*)

Trainee \$20 ISBN 978-0-13-610431-5

Instructor \$20 ISBN 978-0-13-610479-7

### Troubleshooting and Repairing Conveyors

(12.5 Hours)

(Module ID 15402-08; from *Millwright Level Four*)

Trainee \$20 ISBN 978-0-13-610432-2

Instructor \$20 ISBN 978-0-13-610480-3

### Basic Hydraulic Systems

(10 Hours)

(Module ID 15409-08; from *Millwright Level Four*)

Trainee \$20 ISBN 978-0-13-610475-9

Instructor \$20 ISBN 978-0-13-610488-9

### Troubleshooting and Repairing Hydraulic Equipment

(7.5 Hours)

(Module ID 15410-08; from *Millwright Level Four*)

Trainee \$20 ISBN 978-0-13-610476-6

Instructor \$20 ISBN 978-0-13-610489-6

### Motor-Operated Valves

(15 Hours)

(Module ID 40313-09; from *Industrial Maintenance E&I Technician Level Three*)

Trainee \$20 ISBN 978-0-13-604743-8

Instructor \$20 ISBN 978-0-13-604758-2

### Advanced Blueprint Reading

(25 Hours)

(Module ID 32402-09; from *Industrial Maintenance Mechanic Level Four*)

Trainee \$20 ISBN 978-0-13-610446-9

Instructor \$20 ISBN 978-0-13-610457-5

## L4 POWER GENERATION MAINTENANCE MECHANIC

LEVEL 4

### Curriculum Notes

- 165 Hours
- Published: 2010
- Please note that these modules are drawn as is from other craft areas. To order modules individually, refer to the specific craft page for ISBNs.
- Instructor's Guide includes access code to download TestGen software, module exams, PowerPoints®, and performance profile sheets from [www.nccerirc.com](http://www.nccerirc.com).

### PAPERBACK

ISBN

Trainee Guide: \$97 978-0-13-215411-6  
Instructor's Guide: \$97 978-0-13-215412-3

## MODULES

### Vibration and Balancing

(12.5 Hours)

(Module ID 52401-10) Reviews machine basics and explains the causes of machine vibrations. Reviews the basics of vibration analysis and covers the devices used to detect and analyze vibration signatures. Explains how and why vibration analysis is used as part of predictive maintenance programs. Describes field machine balancing.

Trainee \$20 ISBN 978-0-13-266220-8

Instructor \$20 ISBN 978-0-13-266223-9

### Preventive and Predictive Maintenance

(10 Hours)

(Module ID 32401-09; from *Industrial Maintenance Mechanic Level Four*)

Trainee \$20 ISBN 978-0-13-610445-2

Instructor \$20 ISBN 978-0-13-610456-8

### Fuel Preparation and Delivery Equipment

(25 Hours)

(Module ID 52402-10) Explains the basic operations of a coal-fired boiler system. Describes the delivery processes from the storage yard into the coal preparation equipment, and from the equipment into the furnace. Addresses the maintenance checks that need to be made on coal delivery and preparation equipment and explains how solid fuel wastes are disposed of in coal-burning furnace systems. Describes how other solid-fuel furnaces, such as biomass furnaces, are used with boilers.

Trainee \$20 ISBN 978-0-13-266221-5

Instructor \$20 ISBN 978-0-13-266224-6

Trainee \$20 ISBN 978-0-13-610445-2

Instructor \$20 ISBN 978-0-13-610456-8

### Introduction to Tube Work

(10 Hours)

(Module ID 32212-07; from *Industrial Maintenance Mechanic Level Two*)

Trainee \$20 ISBN 978-0-13-604667-7

Instructor \$20 ISBN 978-0-13-604680-6

### Compressors and Pneumatic Systems

(35 Hours)

(Module ID 32403-09; from *Industrial Maintenance Mechanic Level Four*)

Trainee \$20 ISBN 978-0-13-610447-6

Instructor \$20 ISBN 978-0-13-610458-2

### Troubleshooting and Repairing Pumps

(10 Hours)

(Module ID 32407-09; from *Industrial Maintenance Mechanic Level Four*)

Trainee \$20 ISBN 978-0-13-610452-0

Instructor \$20 ISBN 978-0-13-610462-9

### Troubleshooting and Repairing Gearboxes

(20 Hours)

(Module ID 32408-09; from *Industrial Maintenance Mechanic Level Four*)

Trainee \$20 ISBN 978-0-13-610453-7

Instructor \$20 ISBN 978-0-13-610463-6

### Setting Baseplates and Prealignment

(30 Hours)

(Module ID 32305-08; from *Industrial Maintenance Mechanic Level Three*)

Trainee \$20 ISBN 978-0-13-604685-1

Instructor \$20 ISBN 978-0-13-604661-5

### Turbines

(20 Hours)

(Module ID 15505-09; from *Millwright Level Five*)

Trainee \$20 ISBN 978-0-13-610496-4

Instructor \$20 ISBN 978-0-13-610471-1

### Maintaining and Repairing Turbine Components

(15 Hours)

(Module ID 15506-09; from *Millwright Level Five*)

Trainee \$20 ISBN 978-0-13-610497-1

Instructor \$20 ISBN 978-0-13-610472-8

