### Ladder Logic
**February 8 & 9, 2017**  
**Course Code:** EO0711CB17  
**Instructor:** Terry Tomsky  
**Registration fee:** $380  
**Multi person fee:** $350  
**NJ licensed water operators:** $190 (T, W or VSWS only)  
**12 TCHs for NJ water and wastewater license holders**  
**Approval #01-090005-30**

One of our popular hands-on courses taught by one of our most popular instructors! The course will show you how line diagrams provide fast and easily understood pictures of control circuit operations. Topics include: ladder diagrams, circuit design, voltage back feeds and control circuit basics.

**PLEASE BRING A VOLT/OHM METER TO CLASS!!**

### Basic Electrical Print Reading
**March 1, 2017**  
**Course Code:** EO0708CA17  
**NEW Instructor:** Terry Tomsky  
**Registration fee:** $290  
**Multi person fee:** $260  
**NJ licensed water operators:** $145 (T, W or VSWS only)  
**6 TCHs for NJ water and wastewater license holders**  
**Approval #01-010110-30**

This course presents the basic skills required for reading and interpreting electrical prints and diagrams. A great introduction or refresher! Topics include: schematics, diagram logic, types and uses of diagrams/schematics, symbols, and markings, wiring diagrams, scales and conversions.

### O & M of Pumps
**March 8-10, 2017**  
**Course Code:** EO0710CB17  
**Instructors:** Terry Tomsky & Sean Irwin  
**Registration fee:** $495  
**Multi person fee:** $475  
**NJ licensed water operators:** $247.50 (T, W or VSWS only)  
**18 TCHs for NJ water and wastewater license holders**  
**Approval #01-090001-30**

This is, without a doubt, our most popular hands-on course! You will learn and practice accepted procedures for both daily and long-term maintenance of pumps and related equipment. Proactive maintenance and a thorough understanding of the inner workings of a pump can save time and increase the efficiency of your operation. Topics will include: types and uses of pumps, terms and classifications, mechanical seals, pump head calculations and performance curves.

**NOTE:** This course always fills, so be sure to register early!

### Safe Drinking Water Act
**January 26 & February 2, 2017**

JUST A REMINDER.....
Variable Frequency Drives

Motor Control Circuits: Wiring to Troubleshooting

Rigging & Hoisting Safety

Human Error Reduction Training

March 22, 2017

[28x110]Variable Frequency Drives

[28x425]Motor Control Circuits: Wiring to Troubleshooting

[28x904]Rigging & Hoisting Safety

[28x1278]Human Error Reduction Training

[44x18]March 22, 2017

[44x283]: EO0706CA17

[46x810]June 6, 2017

[46x1009]Course code:

[46x1207]: EP0801CA17

[50x413]May 3-5, 2017

[50x614]Course code:

[50x693]EO0709CB17

[61x185]: Joseph Longo

[61x1317]Instructor:

[62x523]Instructor:

[62x590]Terry Tomsky

[62x986]Terry Tomsky

[77x18]Registration fee:

[77x122]$290

[77x1207]Registration fee:

[77x1307]Registration fee:

[77x1405]Registration fee:

[80x122]Multi person fee: $260

[80x1207]Multi person fee: $260

[80x1401]Multi person fee: $260

[80x1075]Registration fee:

[80x1207]Registration fee:

[80x1401]Registration fee:

[80x1134]Registration fee:

[80x1207]Registration fee:

[80x1401]Registration fee:

[93x122]NJ licensed water operators: $145 (T, W or VSWS only)

[93x1207]NJ licensed water operators: $145 (T, W or VSWS only)

[93x1398]NJ licensed water operators: $145 (T, W or VSWS only)

[97x18]This full-day workshop is designed to help you understand the proper techniques for diagramming control circuits. Once you are familiar with the basic circuit, you will be shown how to apply the same theories to more complex systems to quickly troubleshoot and repair equipment. Topics will include: basic circuit control and circuit wiring, permissive circuits and light indication wiring, time interface circuits, electrical interlock interfacing circuits and timers.

PLEASE BRING YOUR VOLT/OHM METER!!!

The use of proper equipment and correct load attachment can mean the difference between a successful lift and a deadly accident! If you use cranes and/or jib hoists, this full-day class is for you. Better preparation means a safer and more efficient workplace for all. Topics will include:

- Crane operator qualifications/Pre-operational checks
- Calculating load weight and load angles
- Hand signals, loading, hooks, slings and hitches
- Preparation and personal protective equipment
- Equipment inspection and hazards.

NOTE: Please remember that under NJDEP regulations, only one-third (1/3) of the total number of TCH’s needed to maintain your license can be associated with courses or events which have been approved by NJDEP as “safety programs”. (Approval #s ending in “1”)

In case of inclement weather or other events (such as power failures) that may result in a course being delayed or cancelled, you may check the status of a course after 6:00am on the morning of the event by calling us or visiting our website and clicking the Adverse Weather Advisory “Course Status Page” link. Visit: www.cpe.rutgers.edu or Call: (848) 932-9271 and select option 4 from the menu.

If a course is cancelled, we will contact you during normal business hours about rescheduling or receiving credit towards another program.

Note: OCPE’s short course cancellations will not be announced on the radio. Please check with us via phone if you’re uncertain of your class time.

Contact Information - Program Coordinator: Carol Broccoll, 848-932-7207; Administrative Assistant: Claudine Oleksin, 848-932-7204

Payment Policy - All students must have prearranged for payment to be admitted to the class.

CANCELLATION & SUBSTITUTION POLICY - Registrants may withdraw in writing from a class up to (3) three full working days before a course begins and receive a full refund, less any materials fee or as otherwise noted on the course webpage. If the Office of Continuing Professional Education is not notified in writing at least three working days prior to the start of class, registrants may be responsible for the full fee. Substitutions are permitted.

Accommodations for Individuals with Disabilities - If you require special assistance, please notify our office when you register or no less than one week before the course starts. Every effort will be made to accommodate reasonable requests.

www.cpe.rutgers.edu

Office of Continuing Professional Education