

**CENTER FOR PROFESSIONAL DEVELOPMENT****POWER PLANT OPERATIONS**

400 Hours/12 Months/Instructor-Facilitated  
Course Code: **CPD107** || Course Cost: **\$2595**

**OVERVIEW**

Power plant operators have to be at the top of their game because they play a very important role, not only on the job, but to the community as well. Qualified power plant operators know how to keep systems functioning properly, and when they detect a problem, they solve it. Our comprehensive program will teach you the skills you need to gain an entry-level position into what is regarded as a high-paying, stable work environment.

Unlike similar training programs in power plant operations, ours is unique. Upon program completion, you will have learned all aspects of how power plants generate electricity through the use of hydrocarbon-based fuels. You will have the know-how to keep systems moving smoothly and efficiently. You will be skilled at troubleshooting and making adjustments. In addition, you will have the confidence that you are maintaining the safety of the personnel and feel empowered to communicate effectively with all levels of staff, from line operators to senior management.

**OBJECTIVES**

Upon successful completion of this program, students should be able to:

- Operate a power plant with safety as the prime consideration
- Monitor instrumentation and the operation of equipment
- Make adjustments to keep system process variables such as flows, temperatures and pressures within acceptable ranges
- Detect potential and actual problems and take corrective action to prevent the interruption of system operations
- Analyze operational trends and take corrective actions
- Use standard operating procedures to start/stop production equipment
- Maintain communication with other operators, maintenance and the management

**OUTLINE**

This course consists of the following modules:

- Basic Safety and Basic Hazard Communication
- Basic Lockout-Tagout
- Basic Math and Applied Physics
- Heat Exchangers
- Lubrication and Bearings

- Electrical Safety
- Electricity for Operators and Technicians
- Industrial Valves
- Compressed Air
- How to Read Process Drawings
- Basic Process Instrumentation and Control
- Pump Fundamentals
- Centrifugal Pumps – Operation
- Steam Generation
- Basic Boiler Systems
- Fuels and Combustion
- Boiler and Auxiliaries
- Cogeneration and HRSG

#### **COMPUTER REQUIREMENTS**

- PC running Windows XP or later
- Internet connection (high-speed recommended)

#### **INSTRUCTOR BIO**

Max Ansari, MSEE P.Eng. a professional engineer, is the on-line instructor for this course. He has extensive experience as professor in Process Technology department at one of the largest community colleges in the country. Max also has extensive engineering, operational and adult training experience in pulp/paper mills, oil refineries and power plants.