ENGINEERING TRAINER

Nuclear Power Plant Machinery

This nuclear power-plant machinery course gives an introductory view of pressurized water reactor systems. It identifies the reactor vessel, fuel, coolant loops, reactor coolant pump, pressuriser, steam generator and control rods, then connects the nuclear and conventional sides of the plant. This self-paced online course includes video lectures and a completion certificate with PDH credits.

Buy This Course | **Request a Quote or Invoice**

ONLINE	SELF-PACED	1-YEAR ACCESS
5 MODULES	2 PDH	2 HOURS

TRUSTED BY ENGINEERING TEAMS WORLDWIDE

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What you'll learn

What is a reactor pressure vessel? What are the principal features of the Steam Generator? What are the differences between Generation I and IV plant designs? Allow this course to show you the principles of operation, design, maintenance, and safety for machinery within nuclear power plants.

In this Self-Paced course 3-D models are used to take participants through a nuclear power plant, the different types of reactors are shown, and the components within a pressurized water reactor are explained. This course provides the detail level needed for engineers and decision-makers starting out in the nuclear industry.

This course consists of 2hr of video content based on 3-D models of a nuclear power station featuring detailed narration by the instructor and cutaways of the internals of the components.

Skills you'll gain

- ✓ can distinguish common nuclear power-plant designs and reactor generations at an introductory level
- ✓ can describe the main layout of a pressurized water reactor power plant
- ✓ can identify the reactor vessel, fuel, coolant loops, reactor coolant pump, pressuriser, steam generator and control rods
- ✓ understand the high-level relationship between the nuclear and conventional sides
- ✓ have a foundation for further study of nuclear power-plant systems

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About the instructor

saVRee

saVRee is an engineering-training company that uses interactive 3D models, video lessons and technical reference material to explain industrial equipment and processes. Since 2017, its material has covered valves, pumps, bearings, heat exchangers, boilers and power-generation machinery for technical learners and industrial teams.

Who this course is for

- ✓ Mechanical engineers entering nuclear power
- ✓ Project engineers supporting a nuclear project
- ✓ Nuclear power technicians who need an introduction to PWR machinery
- ✓ Maintenance engineers responsible for nuclear power-plant machinery
- ✓ Operations personnel who need a visual introduction to PWR systems
- ✓ Engineers moving into nuclear work who need plant-system context before further technical training

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Course content

Nuclear Power Plants

- Reactor Designs
- Generations 1-4

Pressurized Water Reactor (PWR) Power Plant

- PWR General Overview

PWR Nuclear Side

- Reactor
- Fuel
- Legs, Tcold, Thot, and Feedwater
- Reactor Coolant Pump (RCP)
- Pressurizer
- Steam Generator(SG)
- Control Rods
- Boron
- Containment Building (The Can)

PWR Conventional Side

- Conventional Side Overview

Optional Lessons

- How Boiling Water Reactors Work
- How Steam Condensers Work
- How Deareators Work
- How Natural Draft Cooling Towers Work
- Synchronous Generators Explained
- How Electrical Transformers Work
- Electrical Substations Explained (Part 1)
- Electrical Substations Explained (Part 2)