



JENSEN HUGHES

Advancing the Science of Safety

FIRE PROTECTION FOR NUCLEAR POWER PLANTS

Location

JENSEN HUGHES HQ
3610 Commerce Drive
Suite 817
Baltimore, MD 21227

Type

Classroom.

How Much

\$795 per attendee.
Breakfast and Lunch are
included.

Who Should Attend

Level 1-2 or anyone who wants
to improve his or her
understanding of nuclear
power plant fire protection
programs, systems and
requirements.

Course Objectives:

This is a three-day overview course that is the culmination of best practices from JENSEN HUGHES predecessor companies. It provides an overview of fire protection regulations and guidance, fire protection system and feature design, safe shutdown analysis, Fire PRA, fire protection programs and fire modeling. The course meets the needs of new and experienced nuclear power professionals.

Topics Covered Include:

- Regulatory Background
- FP Systems and Features Fundamentals
- Safe Shutdown and Nuclear Safety Capability Assessments
- Fire Marshal Roles and Responsibilities
- Fire PRA for the Non-PRA Practitioner
- Fire Modeling Fundamentals
- Live Fire Demonstrations

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Course Overview and Objectives

Day 1

- Regulatory Information
 - Provide an overview of US Nuclear Power Plant Requirements and Guidance.
- Fire Hazard Analyses and Fire Protection Programs
- FP Systems and Features Fundamentals
 - Provide an overview of a fire hazard analysis
 - Provide an overview of typical design maintenance and testing of FP Systems and Features
 - Provide an overview of fire protection program controls
- Safe Shutdown and Nuclear Safety Capability Assessments
 - Provide an overview of the key processes involved in a post-fire safe shutdown analysis.
 - Discuss selected regulatory and technical topics of interest.

Day 2

- Fire Marshal Roles and Responsibilities
 - Provide an understanding of the primary role of the fire marshal
 - Explain support activities the fire marshal provides that impact the primary duties
 - Explain the fire marshal's role in the fire brigade
 - Explain the engineer's role in conducting a fire drill observation

Day 2 – Continued

- Fire PRA for Non-Fire PRA Engineers
 - Provide an overview of the Fire PRA process
 - Describe in general terms the technical areas supporting Fire PRA
 - Equipment Selection and Model Development
 - Circuit Analysis
 - Fire Scenario Development & Fire Modeling
 - Fire Human Reliability Analysis
 - Describe the state of the art industry documents and technical references supporting Fire PRA
- Fire Modeling
 - Provide a general overview of fire dynamics and fire modeling
 - Provide a general overview of routinely used fire modeling tools
 - Describe the state of the art industry documents and technical references supporting Fire Modeling

Day 3

- Fire Modeling - continued
 - Demonstrate fire behavior with simple full-scale experiments in the JENSEN HUGHES Fire Laboratory
 - Describe the state of the art industry documents and technical references supporting Fire Modeling
 - Discuss simple examples of fire modeling applications in the Fire PRA



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