Nuclear Regulation and Licensing: Civil Nuclear Law, Licensing Stages and Safety-Class QA

6 – 10 September 2027
Amsterdam - Zuidas business district hotel



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Introduction:

Nuclear regulation and licensing decide whether a civil nuclear power project can move from a candidate site to a licensed operating plant, and every missed hold point or incomplete safety submission costs months. When legal, regulatory affairs, project and quality teams misread the licensing basis or the regulatory body's expectations, applications return with questions and procurement stalls. This Core Concept course builds working command of civil nuclear law, licensing stages, inspection and enforcement, liability and safety-class quality assurance. Each participant produces a Licensing Roadmap and Regulatory Interface Plan for a case new-build project.

Course Objectives:

- Explain the purpose of civil nuclear law and apply its principles of safety, operator responsibility, regulatory independence, permission, continuous control and transparency to a draft nuclear act
- Interpret the three-tier international safety standards hierarchy of Safety Fundamentals, Safety Requirements and Safety Guides when preparing licensing submissions
- Prepare licence application packages and hold-point evidence for siting, construction, commissioning, operation and decommissioning stages of a nuclear installation
- Respond to regulatory inspection findings, enforcement notices and licence condition changes through a documented corrective action and regulatory correspondence process
- Assess operator liability channelling, financial security, radioactive waste and decommissioning fund arrangements in a nuclear project's legal framework
- Design a Licensing Roadmap and Regulatory Interface Plan that links safety-class procurement, receipt inspection and stakeholder engagement to licensing milestones

Target Audience:

- Legal functions drafting and interpreting nuclear acts, licence conditions and liability clauses for civil nuclear power owners and operators
- Regulatory affairs functions preparing licence applications, safety case submissions and regulator correspondence for nuclear installations
- Project control and licensing coordination functions sequencing site, construction and commissioning milestones against regulatory hold points
- Quality assurance and supplier oversight functions controlling safety-class items, graded quality requirements and receipt inspection
- Licensing, review and inspection functions within a nuclear regulatory body applying authorisation and enforcement procedures
- Public information and stakeholder engagement functions handling hearings, consultations and disclosure for nuclear projects

Course Outline:

Day 1: Civil Nuclear Law Foundations and Legislative Principles

- Purpose of Civil Nuclear Law: Balancing Peaceful Nuclear Power Use with Protection of People and Environment
- Nuclear Law Principles Map: Safety, Operator Responsibility, Permission, Continuous Control and Compensation
- Regulatory Independence and Transparency Principles in a Nuclear Act
- Anatomy of a Nuclear Act: Definitions, Authorisation Chapters, Offences and Transitional Clauses
- Nuclear Legislative Framework Gap Review Using a Structured Checklist

Day 2: Safety Standards Hierarchy and the Nuclear Regulatory Body

- Three-Tier Safety Standards Hierarchy: Safety Fundamentals, Safety Requirements and Safety Guides
- Transposing International Safety Requirements into National Regulations and Regulatory Guides
- Nuclear Regulatory Body Functions: Authorisation, Review and Assessment, Inspection and Enforcement
- Regulatory Body Independence Safeguards: Funding, Staffing Competence and Separation from Promotion
- Regulatory Documents Architecture: Regulations, Guides, Licence Conditions and Technical Specifications

Day 3: Nuclear Licensing Stages from Siting to Decommissioning

- Site Evaluation Licence: External Hazards Report, Site Characterisation Data and Environmental Assessment Links
- Construction Licence Application: Preliminary Safety Analysis Report and Licensing Basis Documents
- Commissioning Programme and Operating Licence: Final Safety Analysis Report, Hold Points and Operating Limits
- Licence Amendment, Periodic Safety Review and Licence Renewal Procedures
- Decommissioning Licence: Decommissioning Plan, End-State Criteria and Licence Termination

Day 4: Inspection, Enforcement, Liability, Waste Funding and Safety-Class Quality

- Regulatory Inspection Programme: Planned, Reactive and Team Inspections with Finding Classification
- Graded Enforcement Tools: Warning Notices, Directives, Licence Suspension and Revocation
- Nuclear Third-Party Liability Regimes: Exclusive Channelling to Operator, Strict Liability, Limits and Financial Security
- Radioactive Waste Management Policy and Decommissioning Fund Legal Structures
- Safety-Class Item Quality Assurance: Graded Approach, Supplier Qualification and Receipt Inspection Records

Day 5: Case Study: Licensing Roadmap and Regulatory Interface Plan for a New-Build Plant

- Case New-Build Project Brief: Owner Structure, Candidate Site and Programme Milestones
- Licensing Roadmap Build: Submission Sequence, Review Durations and Regulatory Hold Points
- Regulatory Interface Plan: Meeting Protocols, Correspondence Registers and Commitment Tracking
- Stakeholder Engagement and Public Information Plan: Hearings, Consultations and Disclosure Registers
- Licensing Roadmap Presentation and Regulatory Panel Challenge Review

Skills You Will Gain:

- Nuclear Act Interpretation
- Safety Standards Hierarchy Navigation
- Licence Application Preparation
- Regulatory Inspection Response
- Nuclear Liability Assessment
- Decommissioning Funding Review
- Safety-Class Receipt Inspection
- Nuclear Stakeholder Engagement Planning

Why Attend This Course:

- Return with a Licensing Roadmap and Regulatory Interface Plan for a new-build case that can be adapted to a live nuclear project
- Read a nuclear act, licence or regulatory guide and locate the clauses that set hold points, reporting duties and enforcement exposure
- Work the same licensing case from the positions of owner, regulatory body and supplier to see where submissions usually fail
- Compare licensing and quality practice with peers from owners, regulators, engineering contractors and suppliers in civil nuclear power

Conclusion:

A civil nuclear power project stays on programme when its legal basis, licence submissions, regulatory interface and quality evidence move in step. The one week progress from the purpose and principles of nuclear law, through the safety standards hierarchy and the regulatory body, to licensing from siting to decommissioning, then to inspection, enforcement, liability, waste and decommissioning funding and safety-class quality assurance. The final day turns this into a Licensing Roadmap and Regulatory Interface Plan ready for regulatory panel challenge.