

Available on DVDs

IAEA Safety Standards and Safety Related Documents

Videos and synchronized PowerPoint slides on safety standards and other relevant documents.

Overview of the IAEA Safety Standards – Tokyo Course

1. The Safety Standards Programme Overview
2. Legal and Governmental Infrastructures for Nuclear Radiation, Radioactive Waste and Transport Safety Requirements
3. Safety Guides for Legal and Governmental Infrastructure
4. Safety Requirements for Site Evaluation of NPPs – Part 1
5. Safety Requirements for Site Evaluation of NPPs – Part 2
6. Safety Guides for Site Evaluation of NPPs
7. Safety Requirements for Design of NPPs
8. Safety Guides for Design of NPPs
9. Requirements for Safe Operation of NPPs with Comparison to OSART
10. Safety Guides for Operation of NPPs

Lectures on some specific Safety Standards

Legal and Governmental Infrastructures for Nuclear Safety

1. Legal and Governmental Infrastructure for Nuclear, Radiation, Radioactive Waste and Transport Safety (2000), GS-R-1
2. Organization and Staffing of the Regulatory Body for Nuclear Facilities (2002), GS-G-1.1
3. Regulatory Inspection of Nuclear Facilities and Enforcement by the Regulatory Body (2002), GS-G-1.3
4. Documentation for Use in Regulating NPPs (2002), GS-G-1.4

Management Systems GS-R-3

Training Modules

5. Introduction – Management Systems Training
6. Module 1 – IAEA Safety Standards on Management Systems
7. Module 2 – Why have an Integrated Management System?
8. Module 3 – Role of IAEA Safety Requirements GS-R-3 among other Management System Standards – IAEA
9. Module 4 – Responsibilities of Senior Management, IAEA
10. Module 5 – Developing and Integrated Management System

Workshop on Safety Culture

11. International Wisdom supporting Peaceful Utilisation of Nuclear Energy
12. IAEA Safety Standards on Management Systems – particularly DS349
13. Human Factors in Design and Construction Regulatory Perspective
14. Leadership and Culture
15. Leading indicators for effective Management Systems and Safety Culture
16. Information and Training in Support of the IAEA Safety Standards
17. Lessons learned in construction activities
18. Added Value of the SCART Mission at SANTA MARIA GARONA NPP
19. Sellafeld Ltd

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Site Evaluation

20. Site Evaluation for Nuclear Installations (2003), NS-R-3
21. External Human Induced Events in Site Evaluation for NPPs (2002), NS-G-3.1
22. Dispersion of Radioactive Material in Air and Water and Consideration of Population Distribution in Site Evaluation for NPPs (2002), NS-G-3.2
23. Meteorological Events in Site Evaluation for NPPs (2003), NS-G-3.4
24. Flood Hazards for NPPs on Coastal and River Sites (2003), NS-G-3.5

Nuclear Power Plants: Design

25. Software for Computer-Based Systems Important to Safety in NPPs, NS-G-1.1
26. Instrumentation and Control Systems Important to Safety in NPPs (2002), NS-G-1.3
27. Design of Fuel Handling and Storage Systems for NPPs (2003), NS-G-1.4
28. External Events Excluding Earthquakes in the Design of NPPs, NS-G-1.5
29. Seismic Design and Qualification for NPPs (2003), NS-G-1.6
30. Protection Against Internal Fires and Explosions in the Design of NPPs (2004), NS-G-1.7
31. Design of Emergency Power Systems for NPPs (2004), NS-G-1.
32. Design of the Reactor Coolant System and Associated Systems in NPPs (2004), NS-G-1.9
33. Design of the Reactor Containment Systems for NPPs (2004), NS-G-1.10

Assessment and Verification

34. Modifications to NPPs (2001), NS-G-2.3
35. Periodic Safety Review of NPPs (2003), NS-G-2.10

Nuclear Power Plants: Operations

36. Safety of NPPs: Operation (2000), NS-R-2
37. Fire Safety in the Operation of NPPs (2000), NS-G-2.1
38. Operational Limits and Conditions and Operating Procedures for NPPs (2000), NS-G-2.2
39. The Operating Organization for NPPs (2001), NS-G-2.4
40. Core Management and Fuel Handling for NPPs (2002), NS-G-2.5
41. Recruitment, Qualification and Training of Personnel for NPPs (2002), NS-G-2.8
42. The Code of Conduct on the Safety of Research Reactors



Available on DVDs

Lectures from the Basic Professional Training Course on Nuclear Safety (NS)

The material consists of videotaped lectures accompanied by PowerPoint presentations. Some lectures address the IAEA guidance on the subjects matter, others the U.S. practices.

Basic Professional Training Course on Nuclear Safety (BPTC)

Module on Reactor Technology

1. Safety-Related Characteristics (SRC) of Reactors: Introduction
2. Safety-Related Characteristics of Reactors: a) Radioactive Materials Inventory (RMI)
b) Fission Product Decay Heat (FPDH)
3. Safety-Related Characteristics of Reactors: Reactivity Control, Safety Systems & Passive Safety

Module on Basic Concepts of Nuclear Safety

4. Safety Fundamentals of Nuclear Installations
5. Basic Safety Principles for NPPs – INSAG-12
6. Defense-in-Depth – INSAG-10
7. Defense-in-Depth – Implementation The Spanish Experience

Module on Safety Assessment

8. IAEA Sitting Standards: Code on the Safety of NPP Sitting
9. Sitting Evaluation – Safety Guides
10. IAEA Design Safety Standards
11. Basic concepts of Deterministic Accident Analysis
12. Deterministic Accident Analysis (DAA) – Classification of Events
13. Design Basis Accident Analysis (DBAA): Methods and Codes – RELAP5
14. Methods for Beyond Design Basis Accident Analysis – Part 1
15. PSA Utilization: Risk Management
16. PSA Utilization: Design, Inspection, Regulatory Applications

Module on Operational Safety

17. IAEA Requirements for Safe Operation of NPPs
18. Excellence on Operational Safety – The Vision
19. Challenging Operational Safety: Examples and Consequences
20. Assessing Operational Safety: Enhancing Assessment Effectiveness
21. Self-Assessing Operational Safety
22. Configuration Control
23. Operational Safety: Maintenance & Surveillance Programs
24. Operating Organization – U.S.
25. Conduct of Operations – U.S.
26. Enforcement of Standards in Daily Operations

Module on Management of Safety

27. Introduction to Safety Culture - Basic Concepts & Principles
28. Management of Safety & Safety Culture at NPPs
29. Structure and Development of Safety Culture
30. Safety Culture in an Operating Organization
31. Reducing Human Error



Nuclear Installation Safety Training Support



goto.iaea.org/nis-training

Training Video Lectures on the IAEA Safety Standards (available on DVDs)

- 83 Titles of the IAEA Requirements and Safety Guides

Exchange of information on how Member States implement the IAEA Safety Standards

- Video Presentations and Workshops
 - Management Systems (available on the Web)
 - STUK Workshop on Licensing and Regulatory Oversight of New Nuclear Build (available on DVDs)

E-Textbooks | Basic Professional Knowledge on Nuclear Safety

- Basic Professional Training Course (available on the Web)
- Regulatory Control of Nuclear Power Plants

Training Tools and Networking (info on the Web)

- Steering Committee on Training Regulatory Bodies in Countries with NPPs
- Systematic Training Needs Assessment Tools
- Train the Trainers Workshops
- Asian Nuclear Safety Network (ANSN)
- Center for Advanced Safety Tools (CASAT)

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STRENGTHENING THE SAFETY OF NUCLEAR INSTALLATIONS WORLDWIDE