

# **IAEA Safety Standards for Regulatory Activities**

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Division of Nuclear Installation Safety**



**IAEA**

International Atomic Energy Agency

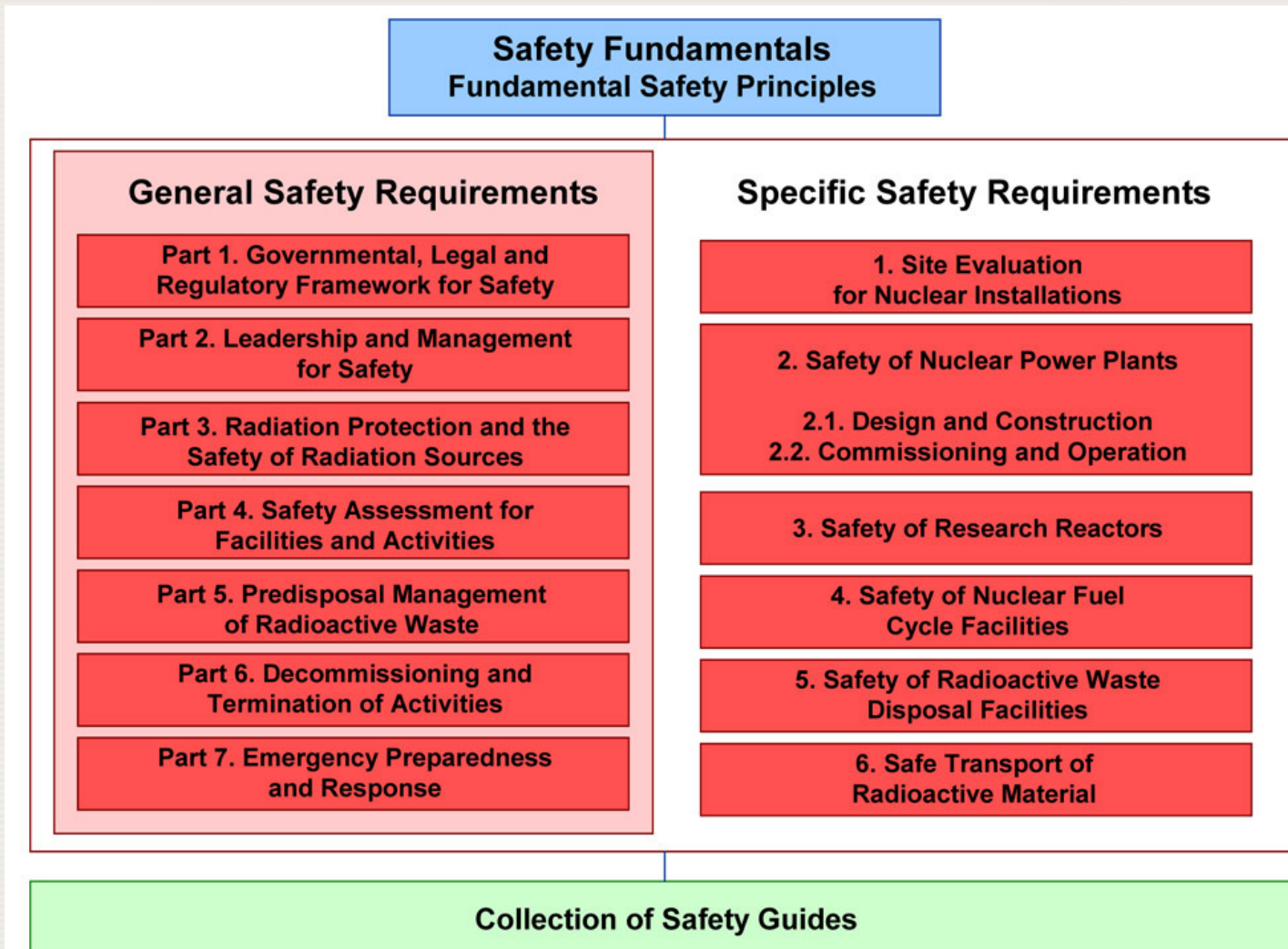
# Content

- IAEA Safety Standards and their Regulatory Application
- Existing and long-term structure of the IAEA Safety Standards
- Requirements, Guides and Supporting Documents
- IAEA Safety Standards applications
- Concluding remarks

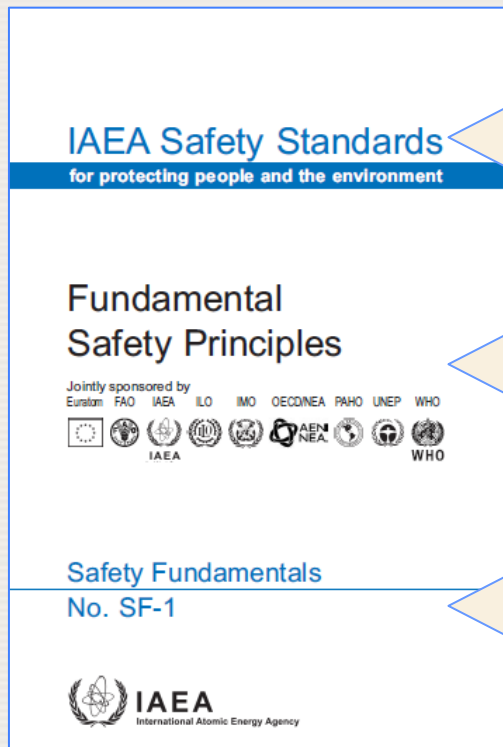
# IAEA Safety Standards : General

- The IAEA Safety Standards represents the international consensus on the requirements and guidance to achieve a high level of safety
- Regulators apply the entire set of IAEA Safety Standards
- They also cover all the areas important to the effectiveness of Regulatory Bodies
- The Safety Standards use regulatory language to allow for their incorporation into national safety regulations, and in developing national regulatory guides.

# Structure of the Long Term Set of Safety Requirements



# SF-1 Fundamentals Safety Principles

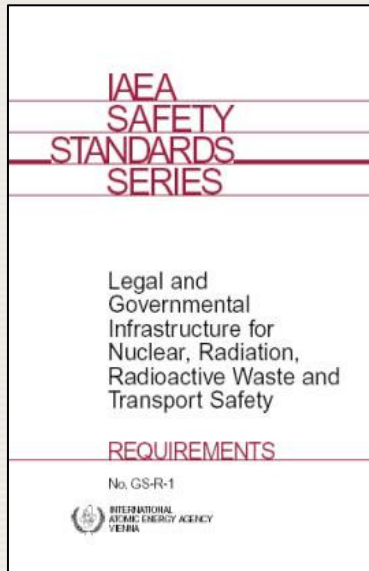


Principle 1: Responsibility for safety

Principle 2: Role of government (Regulator)

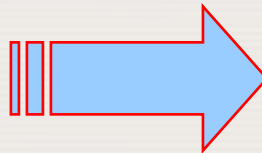
Principle 3: Leadership for safety

# IAEA Safety Requirements “GSR Part 1”

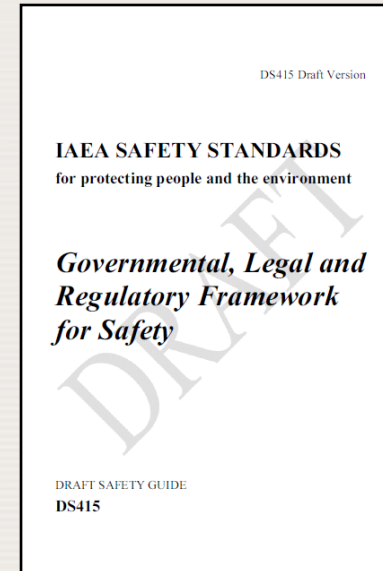


**GS-R-1 (2000)**

**“Legal and Governmental Infrastructure for Nuclear, Radiation, Radioactive Waste and Transport Safety”**



**Revision**

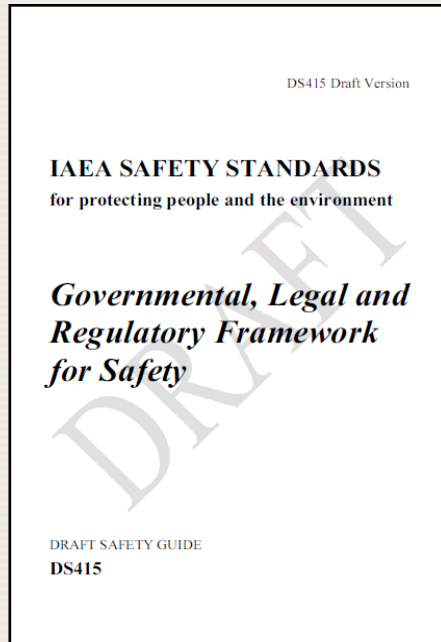


**GSR Part 1**

**“Governmental, Legal and Regulatory Framework for Safety”  
(36 overarching requirements)**

# IAEA Safety Requirements “GSR Part 1”

## Governmental, Legal and Regulatory Framework for Safety



### GSR Part 1

1. Responsibilities and functions of the government *(R 1-13)*
2. Global nuclear safety régime *(R 14-15)*
3. Responsibilities and functions of the regulatory body *(R 16-36)*

# IAEA Safety Standards: GSR Part 1

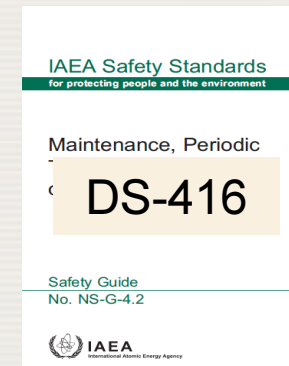
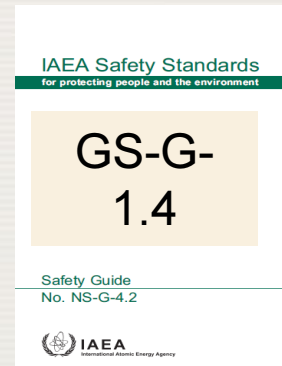
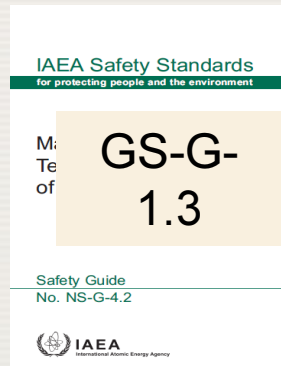
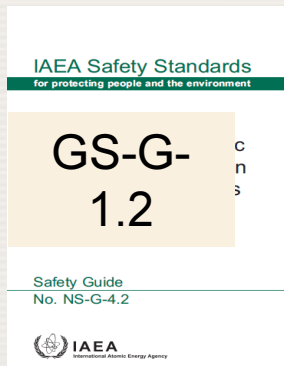
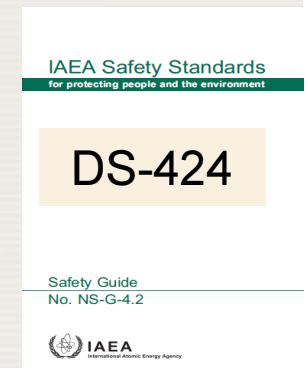
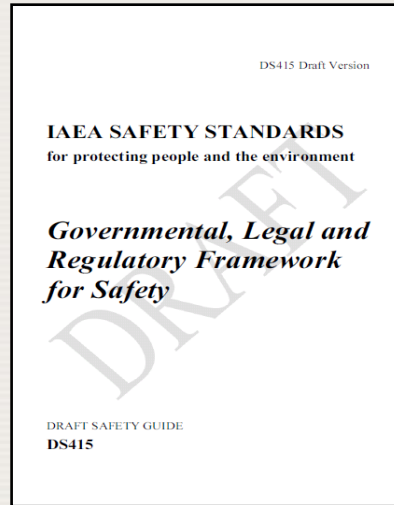
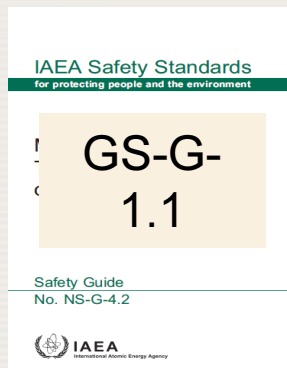
- Ensure integrated regulatory approach to nuclear, radiation, radioactive waste and transport safety that is applicable to all countries;
- Harmonize with Fundamental Safety Principles SF-1 and other IAEA Safety Standards;
- Make it consistent with Conventions and Codes of Conduct;
- Integrate Feedback from Member States and from the application of Agency Safety Services (IRRS);



# IAEA Safety Standards: GSR Part 1

- Take into account new aspects or increased attention f.e.: regulatory independence, communication and public information, involvement of concerned parties, the global safety regime.
- Covers all phases of the lifetime of facilities and duration of activities until release from regulatory control.
- Does not apply to military or defence related activities unless so decided by the Member State, nor does it apply to nuclear security

# IAEA Safety Requirements “GSR Part 1”



# Responsibilities and Functions of the Government

1. National policy and strategy for safety
2. Establishment of a framework for safety
3. Establishment of a regulatory body
4. Independence of the regulatory body
5. Prime responsibility for safety
6. Compliance with regulations and responsibility for safety
7. Coordination of different authorities with responsibilities for safety within the regulatory framework for safety
8. Emergency preparedness and response

# Responsibilities and Functions of the Government

## Requirements (cont'd)

9. System for protective actions to reduce existing or unregulated radiation risks
10. Provision for the decommissioning of facilities and the management of radioactive waste and of spent fuel
11. Competence for safety
12. Interfaces of safety with nuclear security and with the State system of accounting for and control of nuclear material
13. Provision of technical services

# The Global Safety Regime

14. International obligations and arrangements for international cooperation
15. Sharing of operating experience and regulatory experience

## Responsibilities and Functions of the Regulatory Body

16. Organizational structure of the regulatory body and allocation of resources
17. Effective independence in the performance of regulatory functions
18. Staffing and competence of the regulatory body
19. The management system of the regulatory body
20. Liaison with advisory bodies and support organizations
21. Liaison between the regulatory body and authorized parties
22. Stability and consistency of regulatory control
23. Authorization of facilities and activities by the regulatory body

## Responsibilities and Functions of the Regulatory Body

24. Demonstration of safety for the authorization of facilities and activities
25. Review and assessment of information relative to safety
26. Graded approach to review and assessment of a facility or an activity
27. Inspection of facilities and activities
28. Types of inspection of facilities and activities
29. Graded approach to inspections of facilities and activities
30. Establishment of enforcement policy
31. Requiring of corrective action by authorized parties

## Responsibilities and Functions of the Regulatory Body

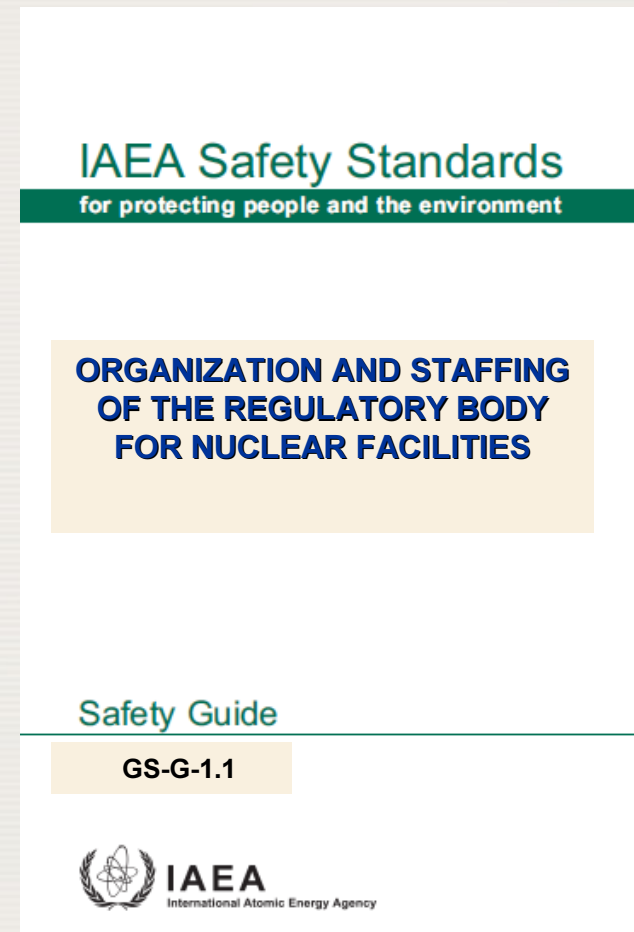
- 32. Regulations and guides
- 33. Review of regulations and guides
- 34. Promotion of regulations and guides to interested parties
- 35. Safety related records
- 36. Communication and consultation with interested parties



# ORGANIZATION AND STAFFING OF THE REGULATORY BODY FOR NUCLEAR FACILITIES

To provide recommendations on organization and staffing of a regulatory body for nuclear facilities with respect to its structure and organization; its interactions with other organizations; the appropriate qualifications required for its staff; and the training to be provided for those staff

- **REGULATORY INDEPENDENCE AND FUNDING OF THE REGULATORY BODY**
- **ORGANIZATION OF THE REGULATORY BODY**
- **STAFFING**
- **TRAINING OF STAFF**

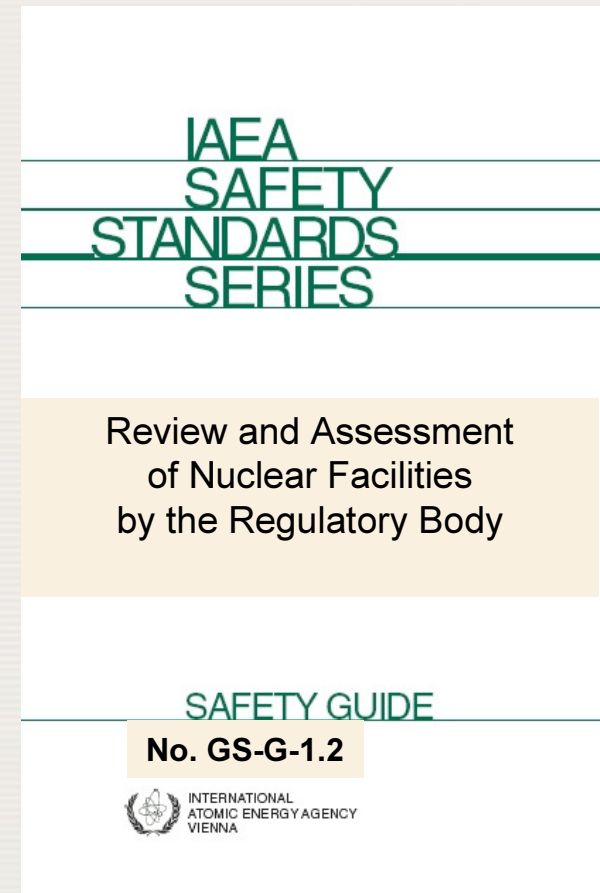


# REVIEW AND ASSESSMENT BY THE REGULATORY BODY

To provide recommendations for regulatory bodies on reviewing and assessing the various safety related submissions made by the operator of a nuclear facility at different stages in the facility's lifetime to determine whether the facility complies with the applicable safety objectives and requirements.

- INTRODUCTION
- REVIEW AND ASSESSMENT PROCESS
- PERFORMANCE OF THE REVIEW AND ASSESSMENT PROCESS
- MONITORING OF THE REVIEW AND ASSESSMENT PROCESS

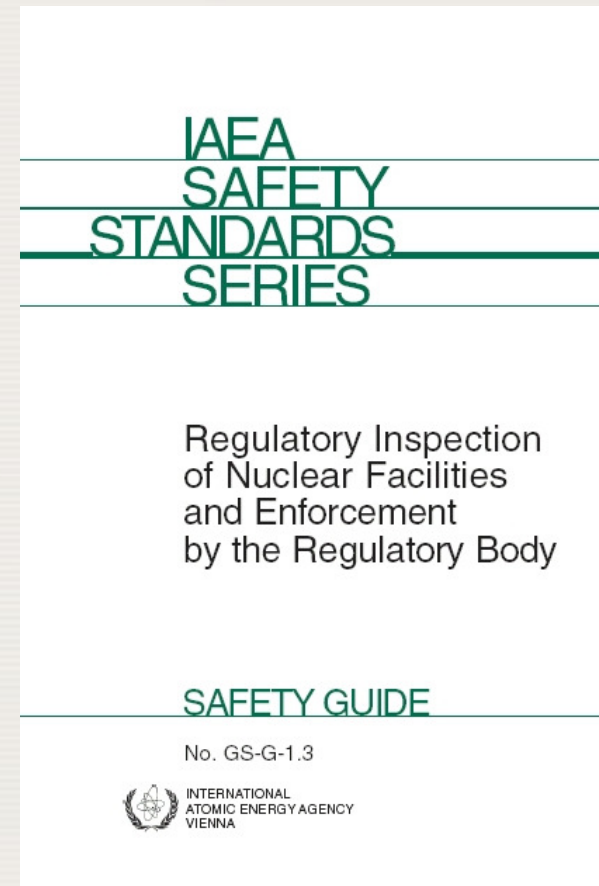
APPENDIX: TOPICS TO BE COVERED BY REVIEW AND ASSESSMENT



# REGULATORY INSPECTION AND ENFORCEMENT

To provide recommendations for regulatory bodies on the inspection of nuclear facilities and enforcement. The objective is to provide the regulatory body with a high level of confidence that operators have the processes in place to ensure compliance and that they do comply with requirements, including meeting the safety objectives and requirements of the regulatory body. Appropriate enforcement program, in the event of non-compliance.

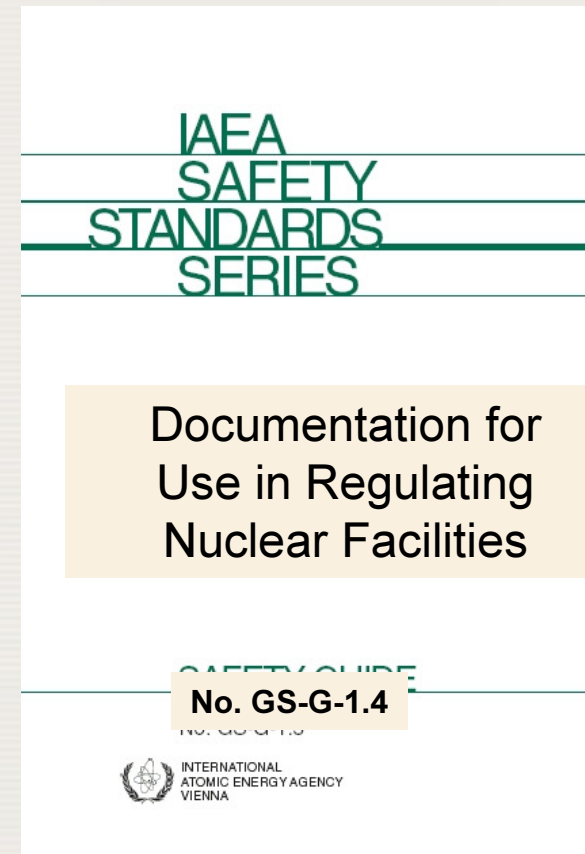
- INTRODUCTION
- OBJECTIVES OF INSPECTION AND ENFORCEMENT
- MANAGEMENT OF INSPECTION
- PERFORMANCE OF REGULATORY INSPECTIONS
- REGULATORY ENFORCEMENT
- ASSESSMENT OF INSPECTION AND ENFORCEMENT



# DOCUMENTATION FOR USE IN REGULATING NUCLEAR FACILITIES

The purpose of this Safety Guide is to provide recommendations for regulatory bodies and operators on the documentation to be prepared for regulatory processes for nuclear facilities, and on how to ensure that such documentation is of sufficient quality and provides correct information in an appropriate way to serve its intended purpose.

- **INTRODUCTION**
- **OVERVIEW OF DOCUMENTATION**
- **REGULATIONS AND GUIDES**
- **DOCUMENTS TO BE PRODUCED BY THE OPERATOR**
- **DOCUMENTS PRODUCED FOR A PARTICULAR FACILITY BY THE REGULATORY BODY**



# Licensing process for Nuclear Power Plants (NEW)

## General Guidance for the Licensing Process

- Basic Licensing Principles
- Obligations, Roles and Responsibilities of the Regulatory Body
- Obligations, Roles and Responsibilities of the Applicant or Licensee
- Main contents of a Licence
- Public Participation
- Graded approach

- Siting and site evaluation
- Design
- Construction
- Commissioning
- Operation (including safety review, long term shutdown, and alternative regulatory process for combined Licences)
- Decommissioning
- Release from Regulatory Control

APPENDIX with examples of documents



IAEA Safety Standards  
for protecting people and the environment

## Licensing process for Nuclear Power Plants

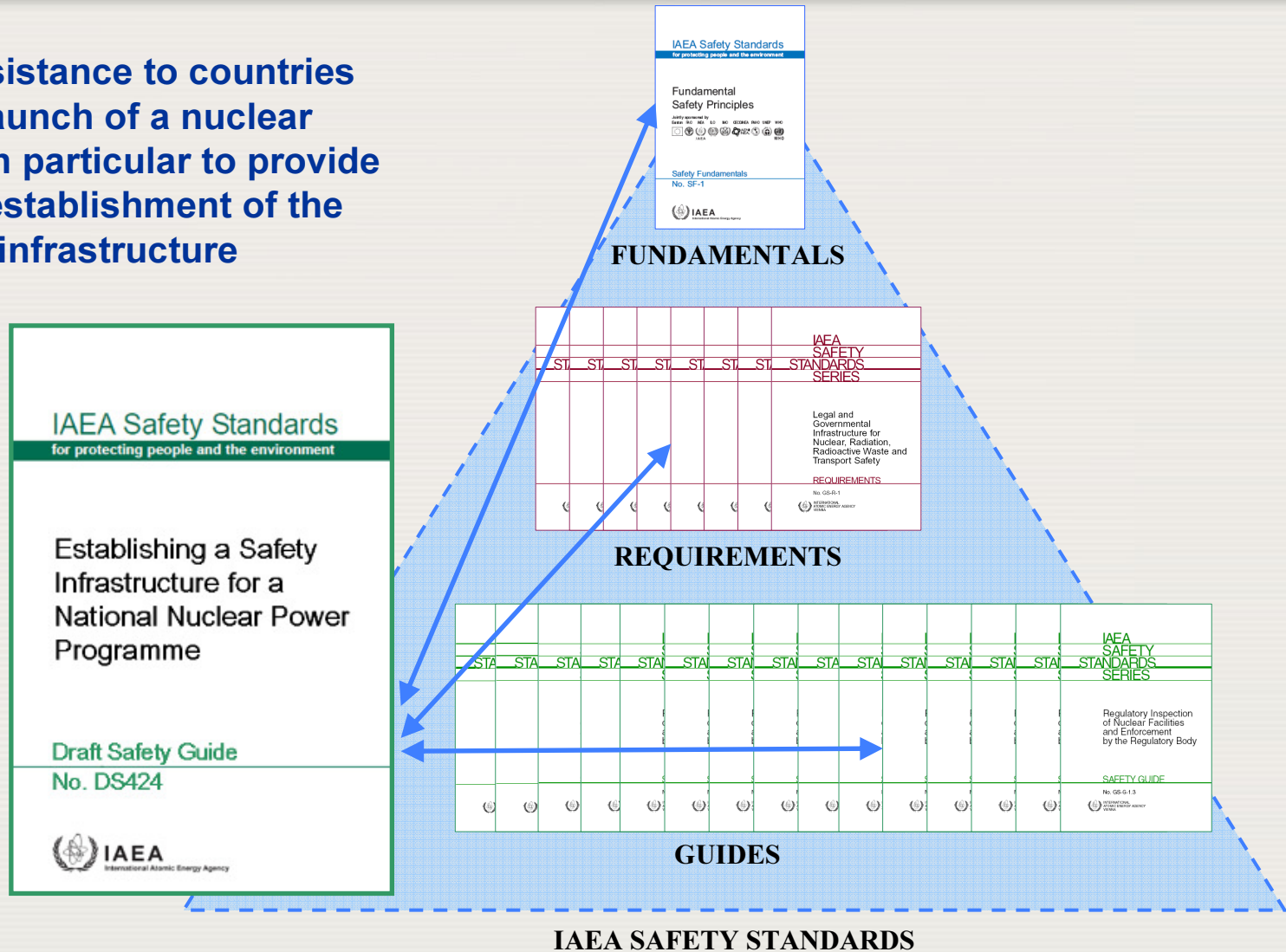
Safety Guide

No. DS-416



# Safety Infrastructure Guide DS424 (Draft)

Guidance and assistance to countries considering the launch of a nuclear programme and in particular to provide guidance on the establishment of the necessary safety infrastructure



# Safety Reports (in progress)

- Regulatory Activities for Ageing and Long Term Operation
- Regulatory Activities during Construction of Nuclear Power Plants

## Concluding Remarks

- IAEA Support for Member States in application of the IAEA Safety Standards
- Conduct of peer review missions
- Training activities based on the Safety Standards



# IAEA Safety Standards Application



**“The Integrated Regulatory Review Service”**

*Thank you for your attention.*



**IAEA**

International Atomic Energy Agency

*Atoms For Peace*

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