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INTEGRATED MANAGEMENT SYSTEMS (IMS) AND SAFETY CULTURE – IAEA GS-R-3

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IAEA's approach to Management Systems

Nuclear installations/activities

In the nuclear industry we need to ensure more than a high standard of quality, we also have to have a high level of:

- Nuclear safety
- Radiation protection
- Environmental protection
- Occupational health
- Security
- Safeguards
- Economics

How ?

Integrated Management Systems

Consideration of requirements separately may introduce negative impact on safety

A single and coherent system should be developed in which all requirements of an organization are integrated to enable achieving its objectives.

All to ensure that safety is not compromised.

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IAEA SAFETY STANDARDS HIERARCHY

Global reference for a high level of nuclear safety

Must be met to ensure protection of people and environment

Recommendations and guidance on how to comply the requirements

Practical guidance for implementation

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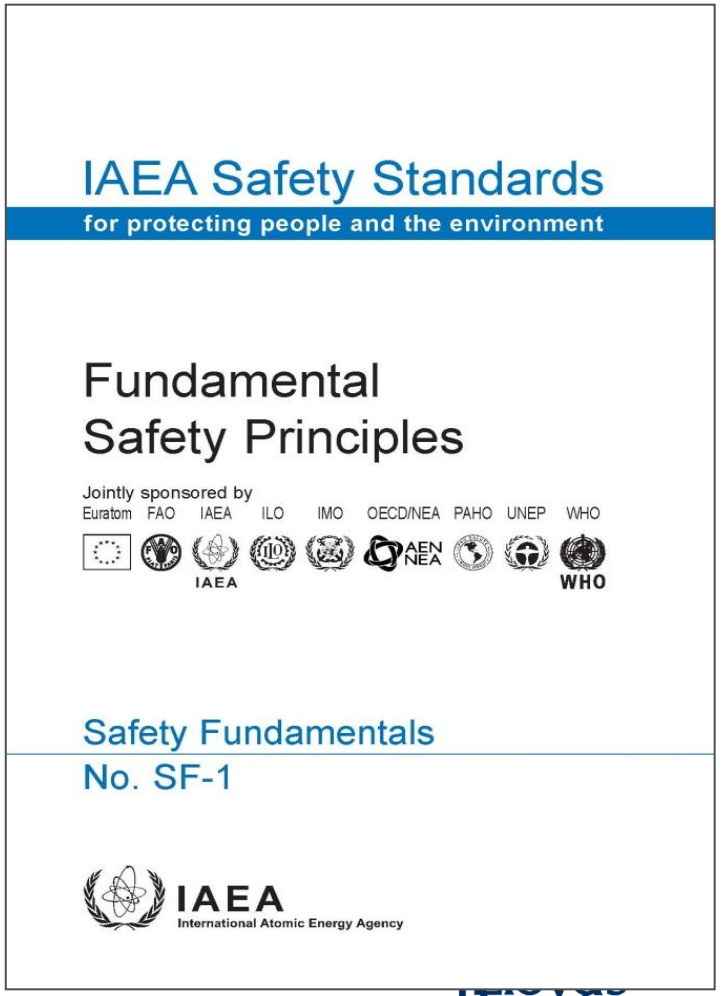
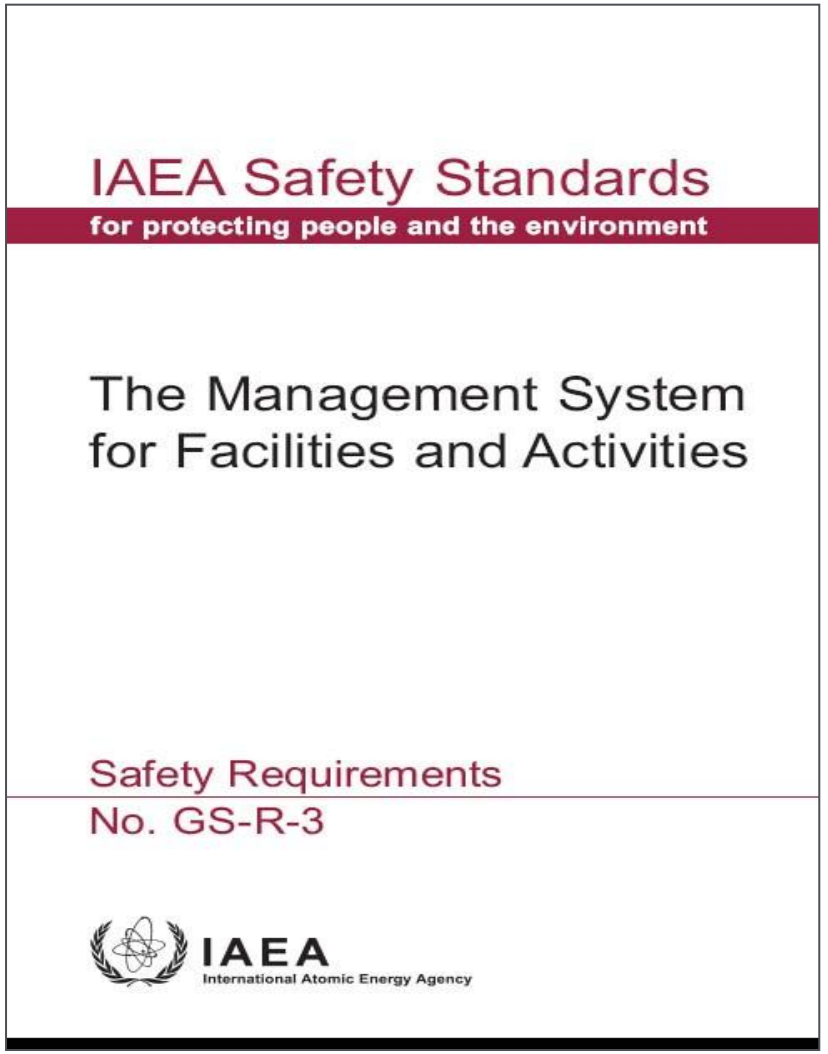
Introduction: Fundamental Safety Principles: SF-1

- Principle 3 - Leadership and management for safety:
  - Safety has to be achieved and maintained by means of an effective management system;
  - This system has to integrate all elements of the management system;
  - The management system has to ensure the promotion and support of a safety culture.



General Aims of GS-R-3



- Establishes safety requirements for management systems for facilities and activities
- Focus on achieving and improving safety through planning, control and supervision of safety related activities *during all operational stages: Siting, Design, Commissioning, Operation and Decommissioning*
- Foster and support a strong *safety culture* through development and reinforcement of good safety attitudes, values and behaviour of individuals, teams and organisation

Users of the GS-R-3

- Operating Organizations:
  - Basis for management system to discharge their prime responsibility on safety;
  - Basis for interaction with other organizations.
- Regulatory Bodies and Official Agencies:
  - Basis for license and permit requirements
  - Basis for management system of regulatory bodies and Agencies.
- Suppliers:
  - Basis for additional safety requirements in contractors;
  - Basis for introduction of additional requirements into their management systems.

GS-R-3 Management system 1/2

General requirements

- *Management System shall be established, implemented, assessed and continually improved.*
- *Safety shall be paramount*
- *System shall identify and integrate all requirements* safety, health, environment, security, quality and economic elements
- *Organisation shall demonstrate fulfilment of requirements*

Safety culture

- *Management System shall promote a strong safety culture*
- *Assure common understanding of safety*
- *Provide means to carry out tasks safely*
- *Provide means to continually develop and improve safety culture*

GS-R-3: Management System 2/2

- Grading the application of management system requirements
  - Apply resources at appropriate levels
  - Consider complexity and significance,
  - Consider risk to safety, health, environment, security, quality and economic elements;
  - Consider consequences of failure

- Documentation of the management system should
  - *Include policies*
  - *Include description of management system*
  - *Include the organisational structure, roles and responsibilities, authority, interfaces and processes*
  - *To be understandable*
  - *To reflect organisation and complexity of processes*

GS-R-3 Versus ISO9001:2008

GS-R-3

- Safety Standards;
- Nuclear industry specific;
- Integrated management approach and process based;
- All requirements are mandatory but a graded approach on their application may be used.

ISO9001

- Non-safety Standards
- Applicable to any organization;
- Only quality management requirements;
- Exclusion of requirements is allowed;
- No environmental protection requirements.

Requirements not in ISO9001:2008

- Safety
- Environment, health, security
- Safety culture
- Knowledge management
- Self-assessment
- Emergency Preparedness
- Managing organizational change

Safety Culture

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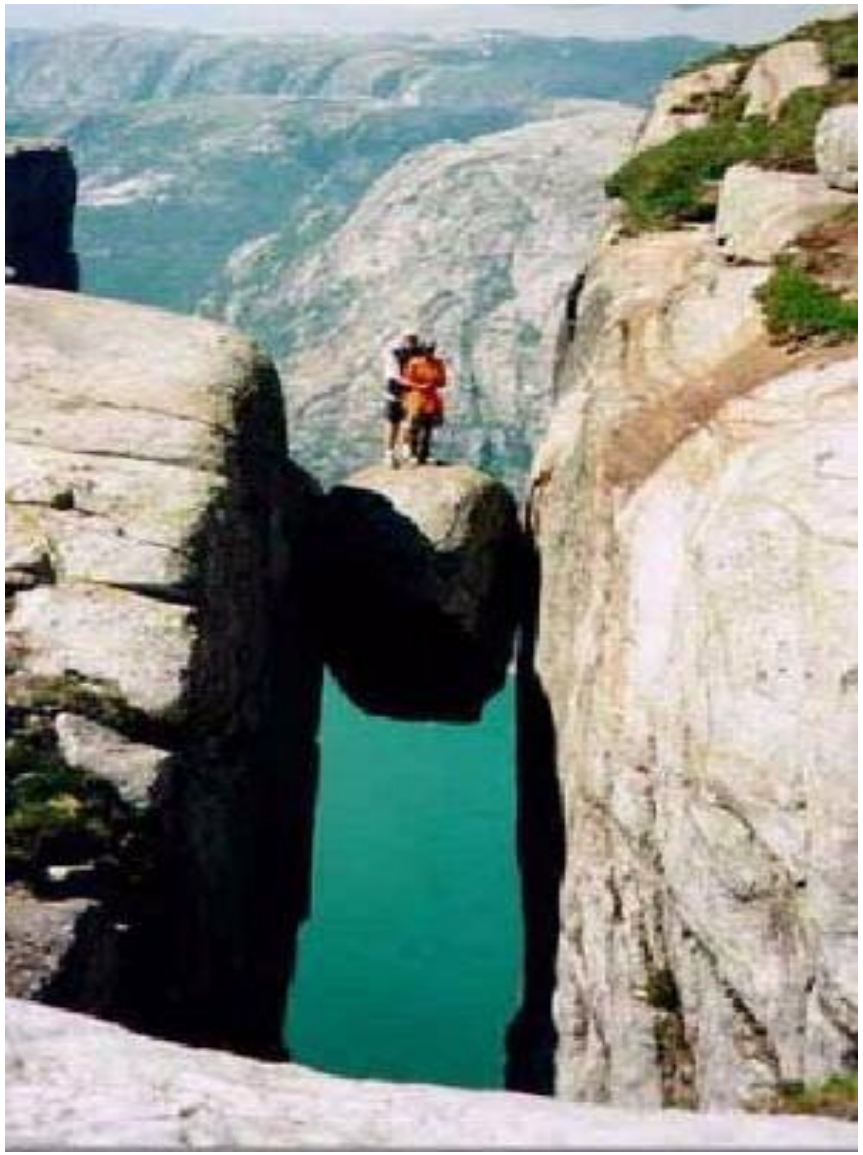

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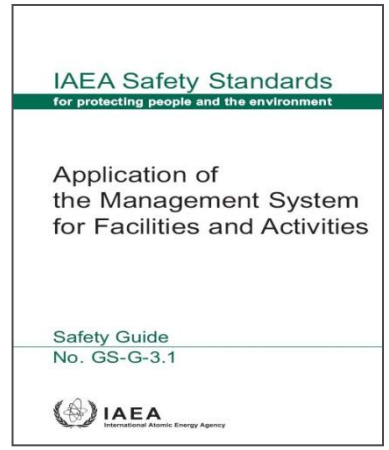
IAEA Safety culture characteristics and attributes (GS-G-3.1)



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Becoming a role-model

How do we learn?

IMITATION

Summary

- Safety series GS-R-3 and GS-G-3.1 and 3.5 give requirements and guidance for the esthablishment and implementation of an Integrated Management System
- The safety, environmental protection, occupational health, economic and security aspects should be integrated to ensure that safety is not compromised
- A sound safety culture and clear leadership are of key importance for safety operation and for the development of an IMS

Useful links

IAEA Safety Standards

http://www-ns.iaea.org/standards/default.asp?s=11&l=90

IAEA Management System Standards

http://www-ns.iaea.org/standards/documents/topics.asp?sub=130&x=3&y=7

NE series reports

http://www.iaea.org/OurWork/ST/NE/NESeries/ClickableMap/

NE Management System web info

http://www.iaea.org/NuclearPower/ManagementSystems/

Entrac

http://entrac.iaea.org/default.aspx

INSAG documents (incl safety culture)

http://www-ns.iaea.org/committees/insag.asp#2

Important dicuments for Embarking Countries

http://www.iaea.org/NuclearPower/Infrastructure/Bibliography/index.html

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