



DEVELOPMENT OF REGULATIONS & GUIDANCE AND STAKEHOLDER PARTICIPATION



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Outline

- Regulations and Guidance
 - Attributes of 'Good' Regulations
 - Legal Provisions & Approach for development of Regulations & Guidance
- Strategies and Strategic Directions
- Process for Development and Revision of REGDOCs
- Stakeholder Participation
- Regulatory Strategic Plan [January 2025-2029]
 - 'Harmonization' of Overarching Regulations
 - Regulatory Readiness for BSR & BSMRs
- Summary

Regulations and Guidance



Attributes of 'Good' Regulations

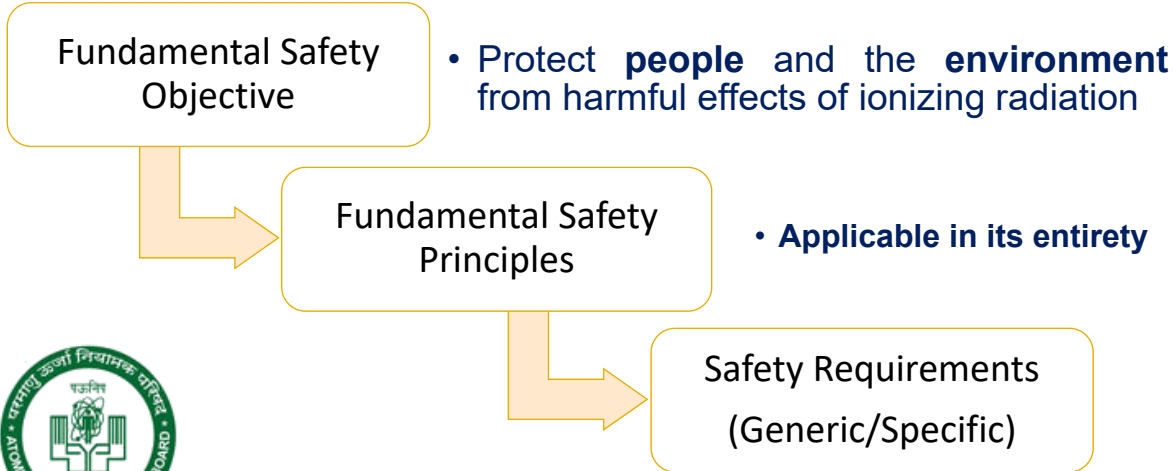
- Consistent with Legal Framework
- Clear and Unambiguous
- Well-founded and Well-discussed
- Appropriate and Balanced
- Relevant and Updated
- Implementable and Enforceable

Legal Provisions

Atomic Energy Act, 1962 confers the powers and responsibilities for framing of Rules to GOI

- Constitution Order of AERB (S.O. 4772) [1983]**
- Atomic Energy (Radiation Protection) Rules, **2004** *[Revision of 1971]*
- Atomic Energy (Working of the Mines Minerals and Handling of the Prescribed Substances) Rules, **1984**
- Atomic Energy (Safe Disposal of Radioactive Wastes) Rules, **1987**
- Atomic Energy (Factories) Rules, **1996**
- Atomic Energy (Radiation Processing of Food and Allied Products) Rules, **2012**
- The Occupational Safety, Health and Working Conditions Code, **2020**
- The National Commission for Allied and Healthcare Professions Act, **2021**
- NDMP, 2019: Setting of Regulatory Standards and other Safety and Regulatory Documents**

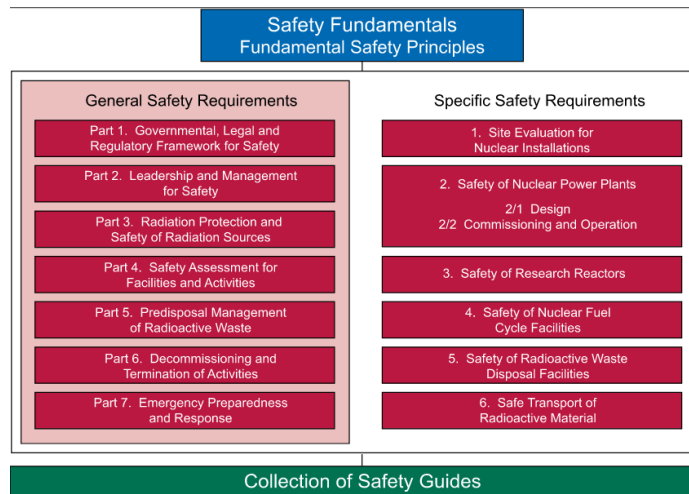
Approach (1/2)



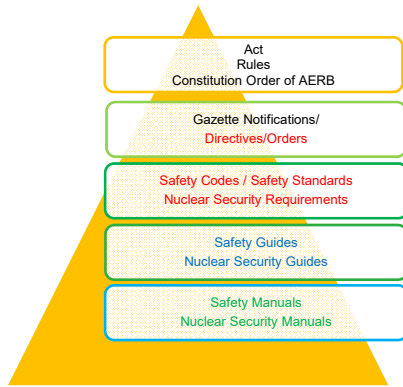
Approach (2/2)



“ The IAEA safety standards are the global reference for protecting people and the environment from harmful effects of ionizing radiation. ”



Strategic Direction - Hierarchy



• Directives

- In the cases of exposures in excess of regulatory constraints (**Rule-28**)
- In case of accidents (**Rule-32**)
- To ensure adequate protection of the persons in and around the decommissioned installation (**Rule-34**)

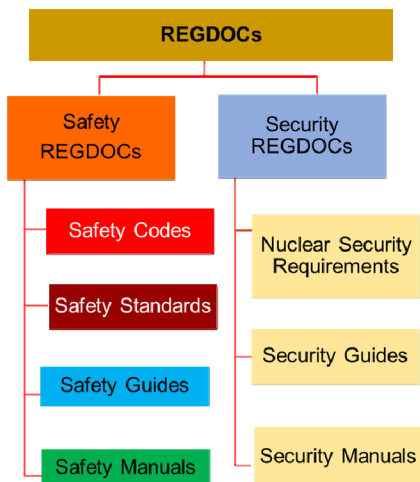
• Orders

- Radiation symbol or Warning sign (**Rule-14**)
- Dose limits and other regulatory constraints (**Rule-15**)
- Records of workers (**Rule-24**)
- Health surveillance of workers (**Rule-25**)
- Radiation surveillance requirements (**Rule-27**)

• Notifications

- Notifying other sources and practice for which 'Licence' shall be necessary and not listed (**Rule-3**)
- Appropriate fees payable for issuance of licence specified (**Rule-4**)

Strategic Direction - Categories



□ SC / NSR

Minimum safety requirements

□ SS

Quantitative technical requirements on any particular aspect/ practice/ source or an equipment

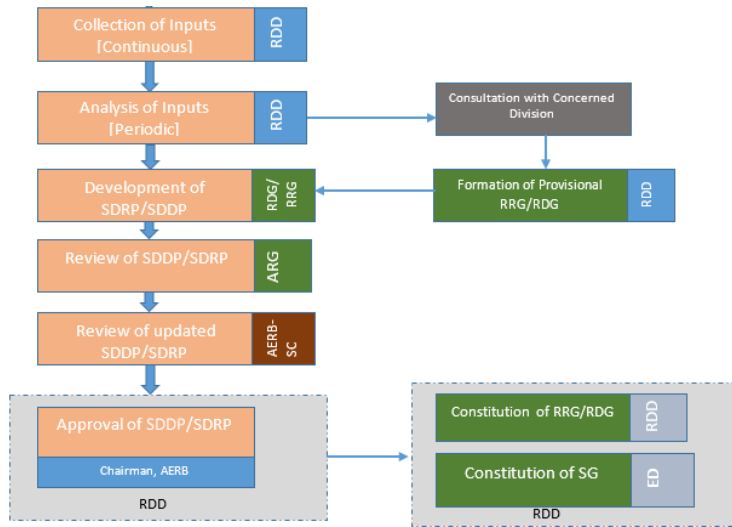
□ SG / NSG

Elaborate requirements and furnish recommended regulatory approaches. Alternate approach can be 'acceptable' with adequate justification

□ SM / NSM

Detailed approach / methodology

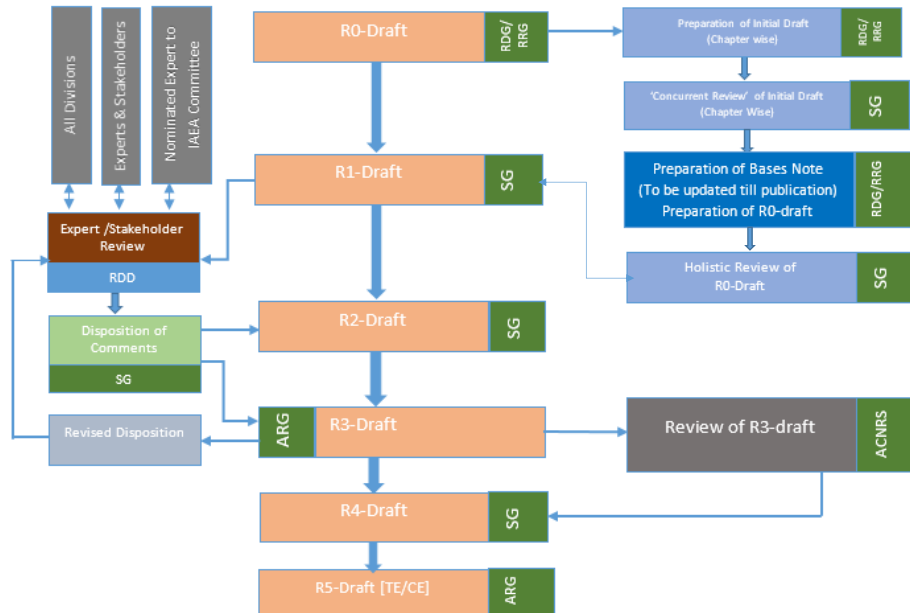
Process – Planning Phase

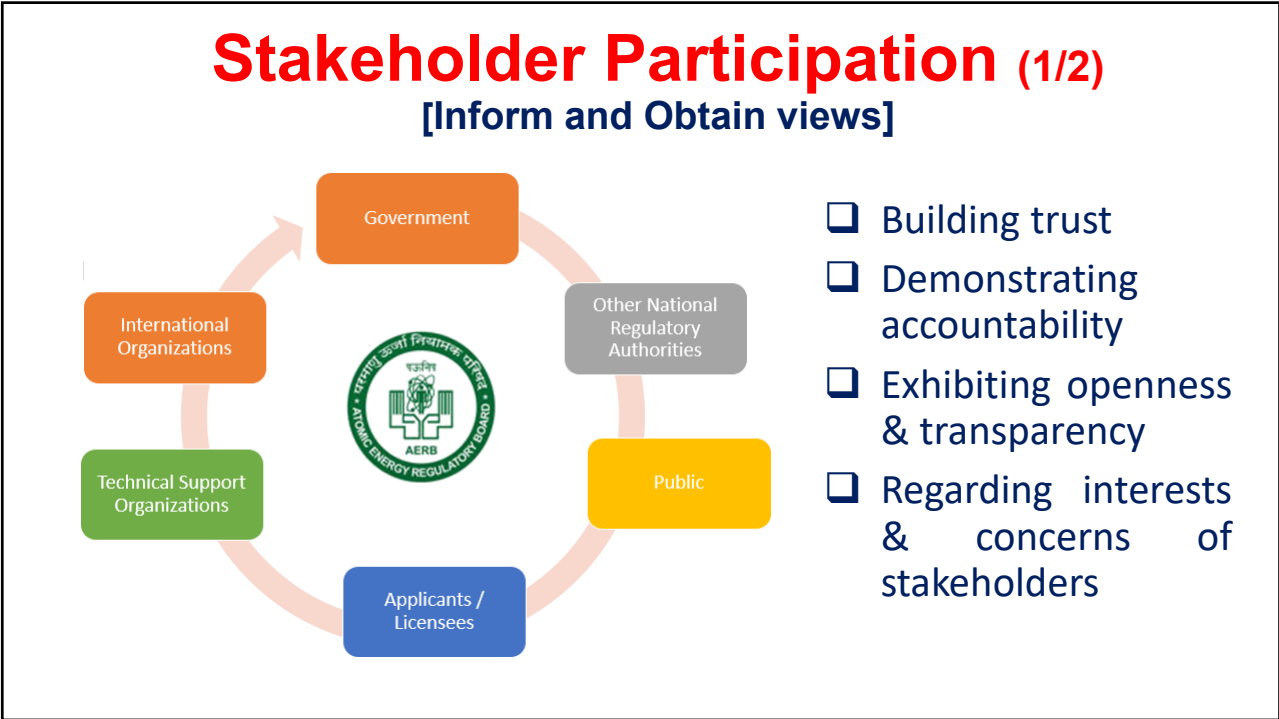
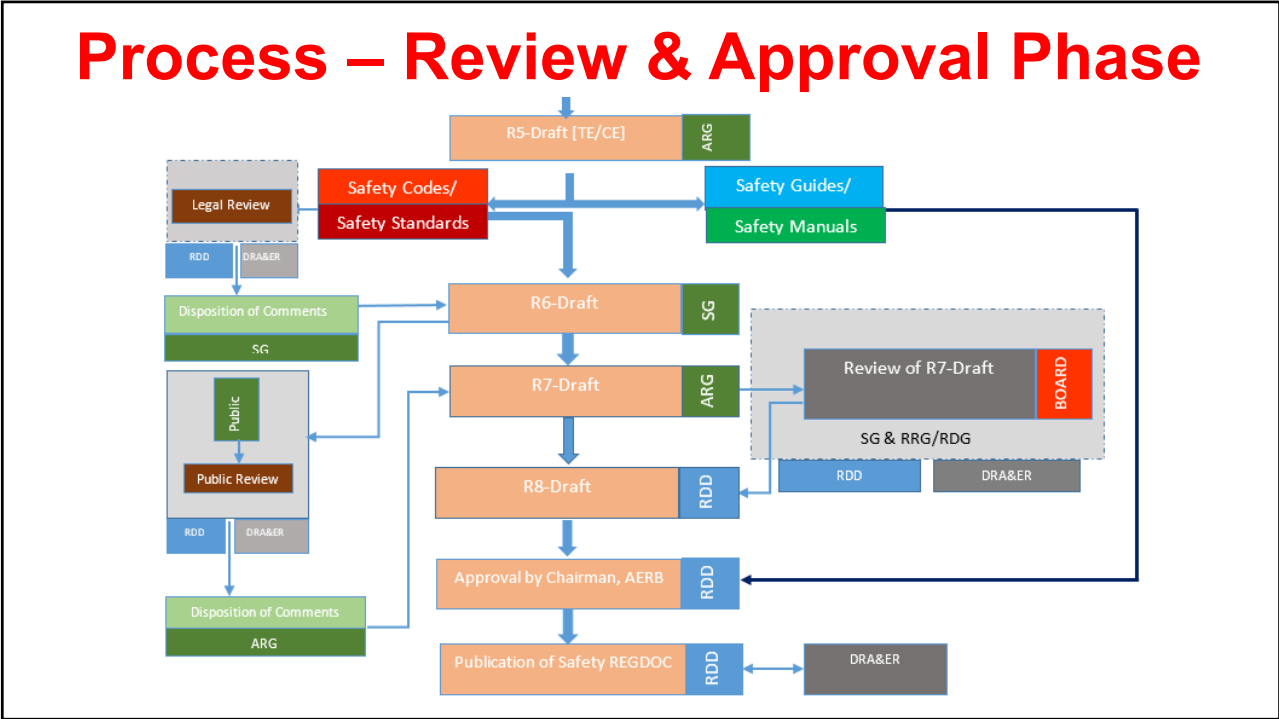


• REGDOC Development Plan

- Input Collection [Continuous]
 - Safety Review and Assessment
 - Regulatory Inspection
 - Regulatory Research
 - Enforcement
 - Stakeholder Feedback
 - National coordination
 - International cooperation
- Review of Inputs [Periodic]
- Preparation of Proposal [D / R]
- Review & Approval of Proposal
- **Constitution of RDG / RRG**
- **Constitution of SG**

Process – Preparatory Phase



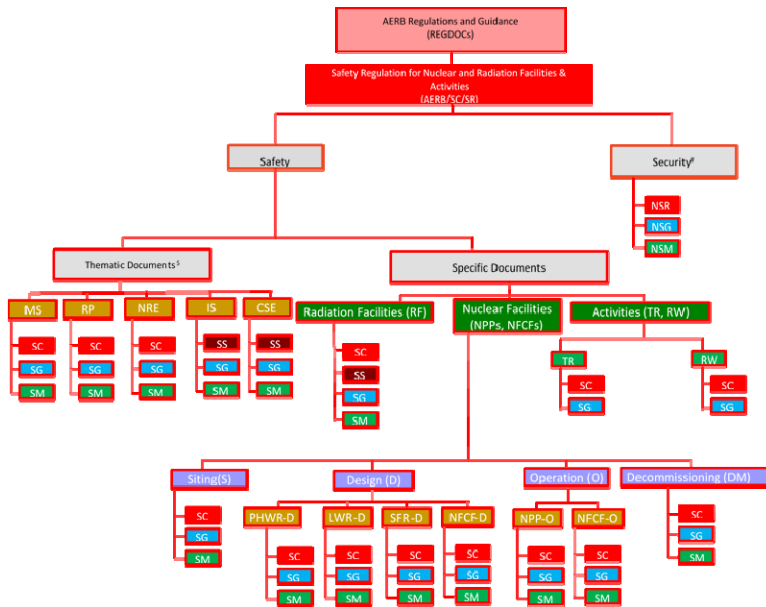


Stakeholder Participation (2/2)

[Inform and Obtain views]

Sr. No.	RF-REGDOC	Stakeholder Engagement
1.	SG-Industrial Radiography	SRRC-Chennai, 30.08.2024
2.	SG-Industrial Accelerator Radiation Processing Facilities	AERB, Mumbai 20.09.2024
3.	SG-Diagnostic Radiology	AERB, Mumbai 14.05.2024
4.	SG-Medical Cyclotron Facilities	NRRC, Delhi 09.08.2024
5.	SG-Nucleonic Gauges	AERB, Mumbai 25.10.2024
6.	SG-XGE Used for Research, Education, Inspection & Analysis	NRRC, Delhi 09.08.2024
7.	SG-Well logging	AERB, Mumbai 19.07.2024
8.	SG-Gamma and X-Ray Irradiation Chamber	ERRC Kolkata, 30.08.2024
9.	SG-Gamma Radiation Processing Facilities	AERB, Mumbai 20.09.2024
10.	SG-Radiation Therapy	AERB, Mumbai 05.06.2024
11.	SG-Nuclear Medicine Facilities	AERB, Mumbai 21.06.2024
12.	SG-Particle Accelerator Research Facility	ERRC Kolkata, 30.08.2024
13.	SG-Container Scanner	Planned at SRRC-Chennai
14.	SG-Consumer Products	Planned at AERB, Mumbai
15.	SG-RS Used for Research, Education, Inspection & Analysis	Planned at AERB, Mumbai

Regulatory Strategic Plan [2025-2029]



Safety REGDOCs [160+]

- 135 Published before 2014 – Requires Revision
- 31 Under Revision
- 39 Getting subsumed
- 65 'Campaign' Revision

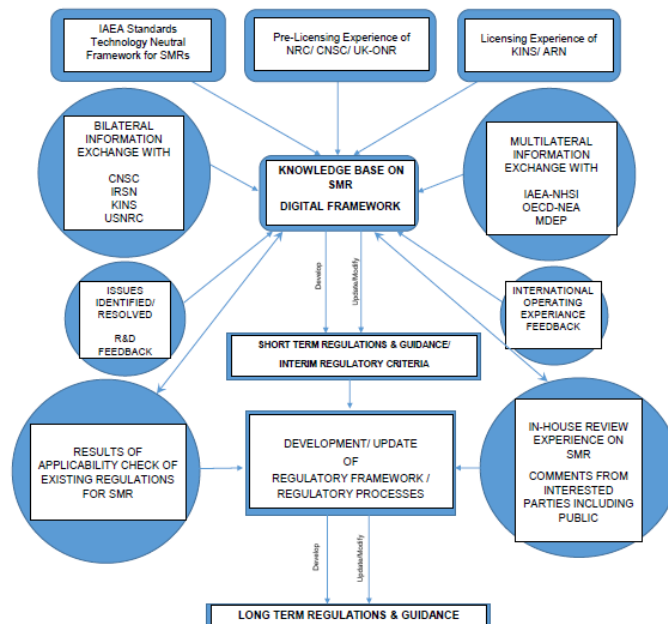
Regulatory Strategic Plan [2025-2029]

‘Harmonization’ of Overarching Regulations - Priority

- ❑ Safety Code on **Regulation** of Facilities and Activities (SC/G)
 - ❑ Safety Guides (SG/G-1, SG/G-2 and SG/G-3)
- ❑ Safety Code (**Siting** - SC/S, 2014) ensuring coherency with emergency zones defined in Safety Code (**Emergency Preparedness & Response** - SC/NRE, 2022)
- ❑ Safety Code (**Design** – LWR (2015) / PHWR (2009) / SFR – Advanced Stage]
- ❑ Safety Code (**Operation** – SC/O (2008))
- ❑ Safety Code (AERB/RF/SC) – Single Safety Code for **Radiation Facilities**
 - ❑ Practice-Specific Safety Guides (IR, DR, CS, IARPF, MCF, NG, GXIC, and WL)

This will enable AERB to regulate potential new entrants such as Joint Ventures and Licensee under the Public Privet partnership (PPP) model and emerging technologies

Regulatory Readiness for BSR & BSMRs



Summary

- ❑ AERB develops regulatory requirements and guidance for all facilities and activities, under its purview, applying graded approach
- ❑ AERB REGDOCs are developed such that:
 - ❑ **Radiation exposure** to People and Environment are *controlled & optimized*
 - ❑ **Likelihood of events** that might lead to core melt accidents *is limited*
 - ❑ **Consequences** of such events *are mitigated* to the extent practicable
- ❑ AERB has developed strategic directions and guidance which are necessary for establishing and maintaining up to date regulations and guidance
- ❑ AERB has taken initiatives to address the potential challenges that may arise due to inclusion on **new entrants & emerging technologies**

Thank You



If it matters, it should not happen !

If it happens, it should not matter !!

