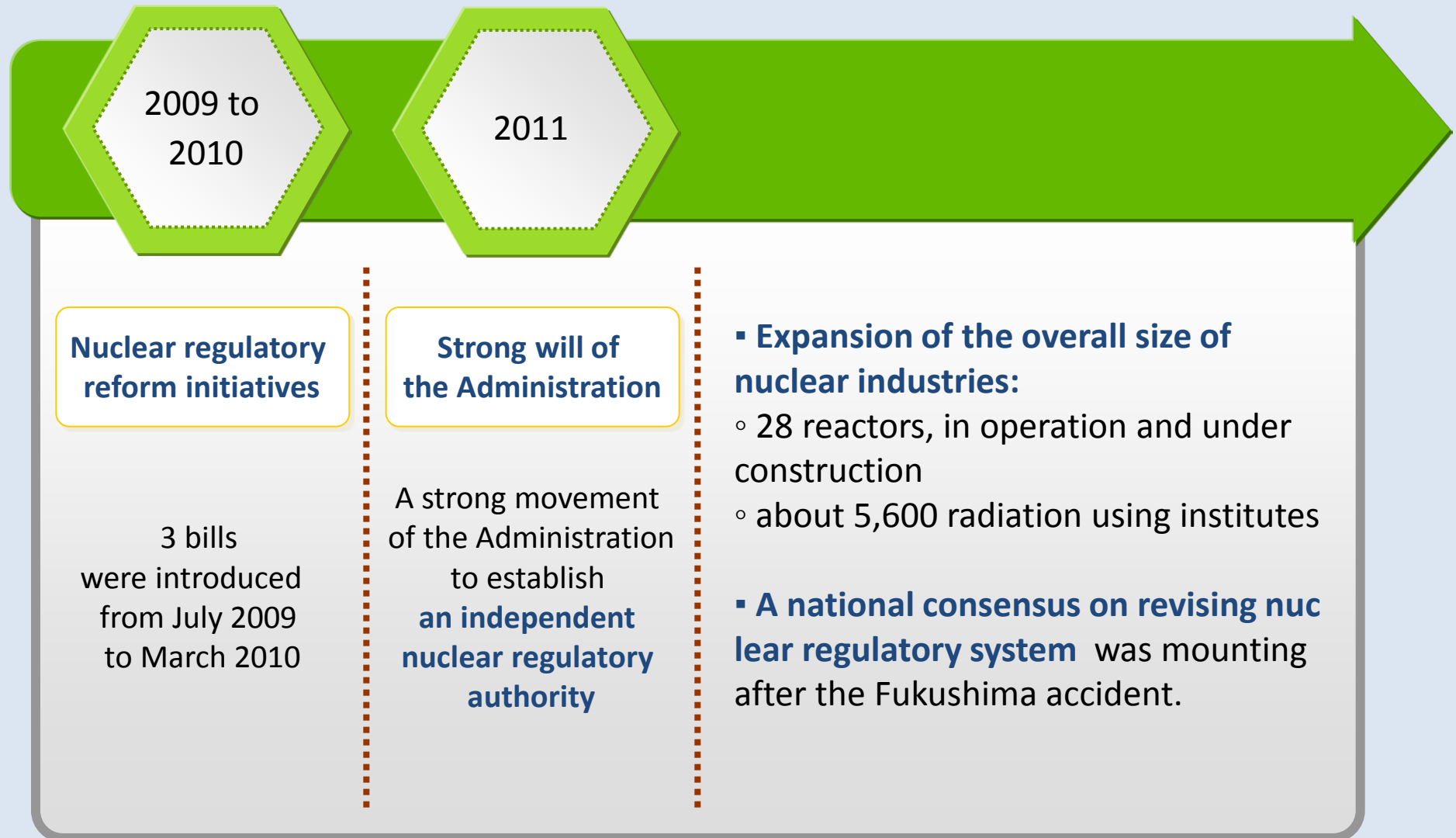


NUCLEAR SAFETY & SECURITY COMMISSION BUILDS UP SAFETY & SECURITY



NSSC

BACKGROUND OF ESTABLISHMENT OF NSSC



BACKGROUND OF ESTABLISHMENT OF NSSC

2011

Passing of the bills

The bills to establish NSSC and revise the Nuclear Safety Act were passed in the National Assembly

Dividing of the Nuclear Safety Act :Safety and Promotion.

Safety related laws – 7 laws including the Nuclear Safety Act, the Act on Physical Protection and Radiological Emergency, the Nuclear Liability Act and the Act on Protective Action Guidelines Against Radiation in the Natural Environment.

Oct 26, 2011

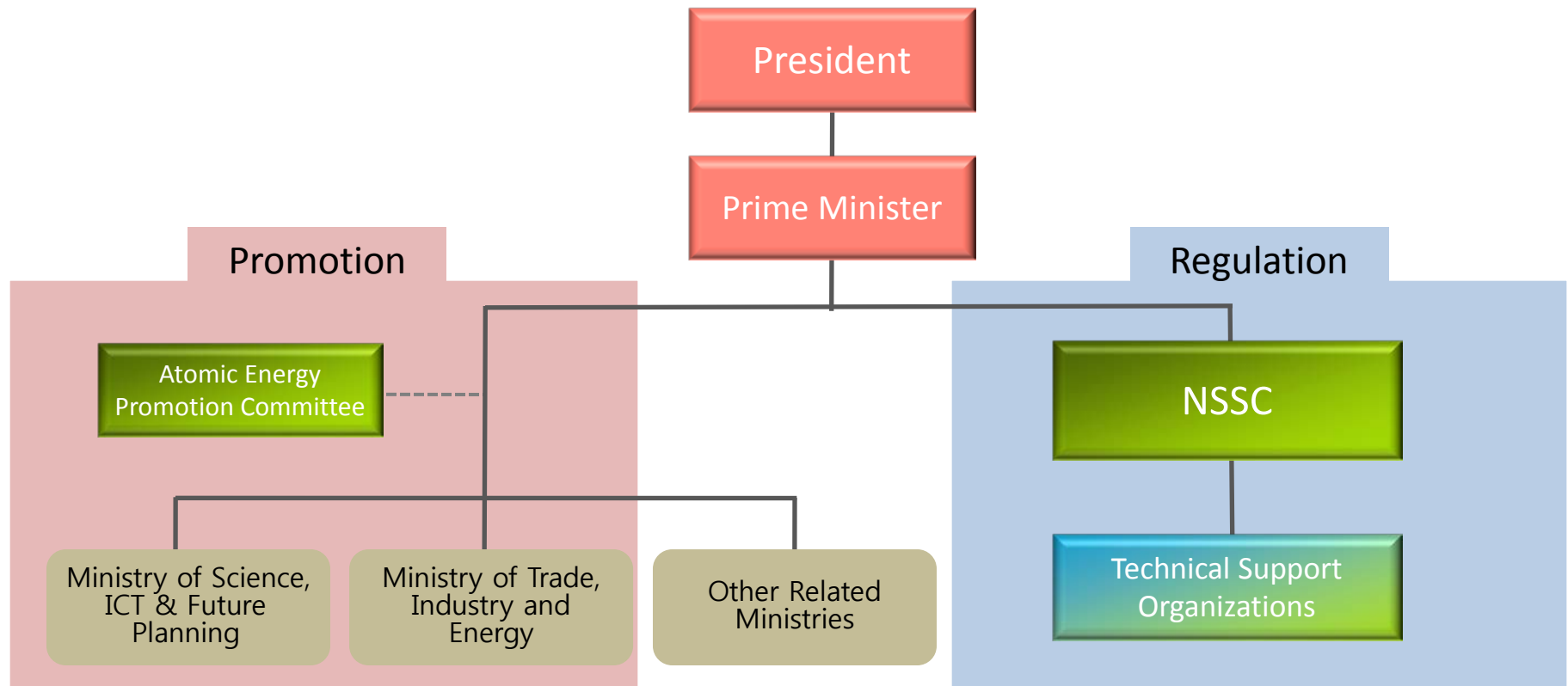
The official launch of NSSC

Birth of an independent government organization



NUCLEAR SAFETY AND
SECURITY COMMISSION

NUCLEAR-RELATED GOVERNMENTAL ORGANIZATION



Ministry of Science, ICT & Future Planning: development of advanced reactors, R&D of RI and radiation

Ministry of Trade, Industry and Energy: establishment of promotion plans and strategies on nuclear energy

Other Related Ministries: inspections on fishery and agricultural products, management of radiation in ground water, management of radiation workers, and etc.,

ROLES AND FUNCTIONS OF NSSC

SAFETY

NSSC ensures the highest level of nuclear safety.

SECURITY

NSSC protects nuclear facilities from terrorism and other threats from in and outside of Korea.

NON-PROLIFERATION

NSSC contributes to building a stronger global nuclear regime for the peaceful use of nuclear energy.

NSSC Assures

“Nuclear Safety, Security, and Non-Proliferation”



VISION OF NSSC

VISION

Building nuclear
safety that people
and the world trust

Principles of NSSC

Technical Excellence: accumulate expertise and experiences that people and the world build trust on

Independence: progress vigorously with works only for the nation and people

Transparency: leave no doubts throughout the safety regulatory process

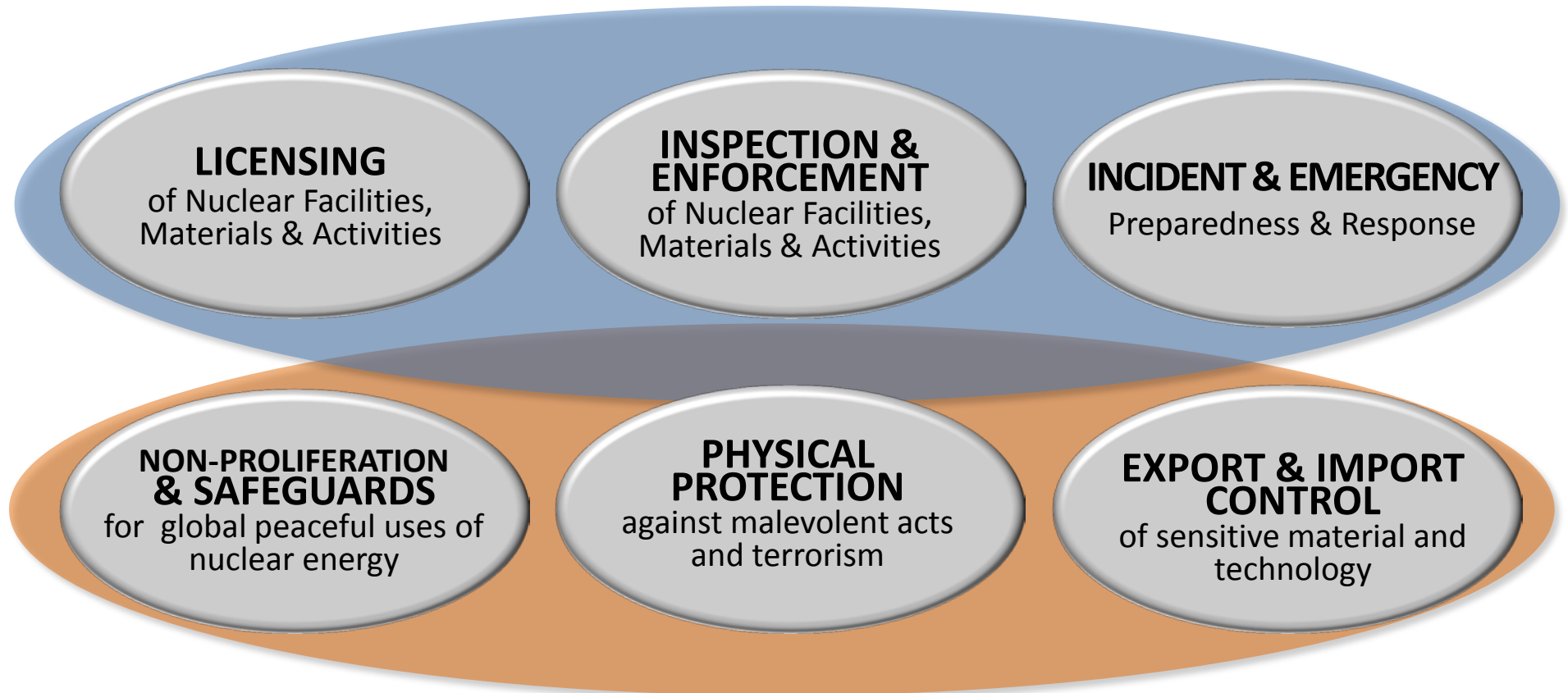
Impartiality: stand with impartiality and objectiveness

Reliability: comply with principles and maintain clarity and consistency

GOVERNING ACTS OF NSSC

- Act on the Establishment and Management of Nuclear Safety and Security Commission
- Nuclear Safety Act
- Act on Physical Protection and Radiological Emergency
- Act on Protective Action Guidelines Against Radiation in the Natural Environment
- Nuclear Liability Act
- Act on Indemnity Agreement for Nuclear Liability
- Act on Korea Institute of Nuclear Safety

SPECIFIC ACTIVITIES OF NSSC



TECHNICAL SUPPORT ORGANIZATIONS



Korea Institute of Nuclear Safety



Korea Institute of Non-proliferation
and Control

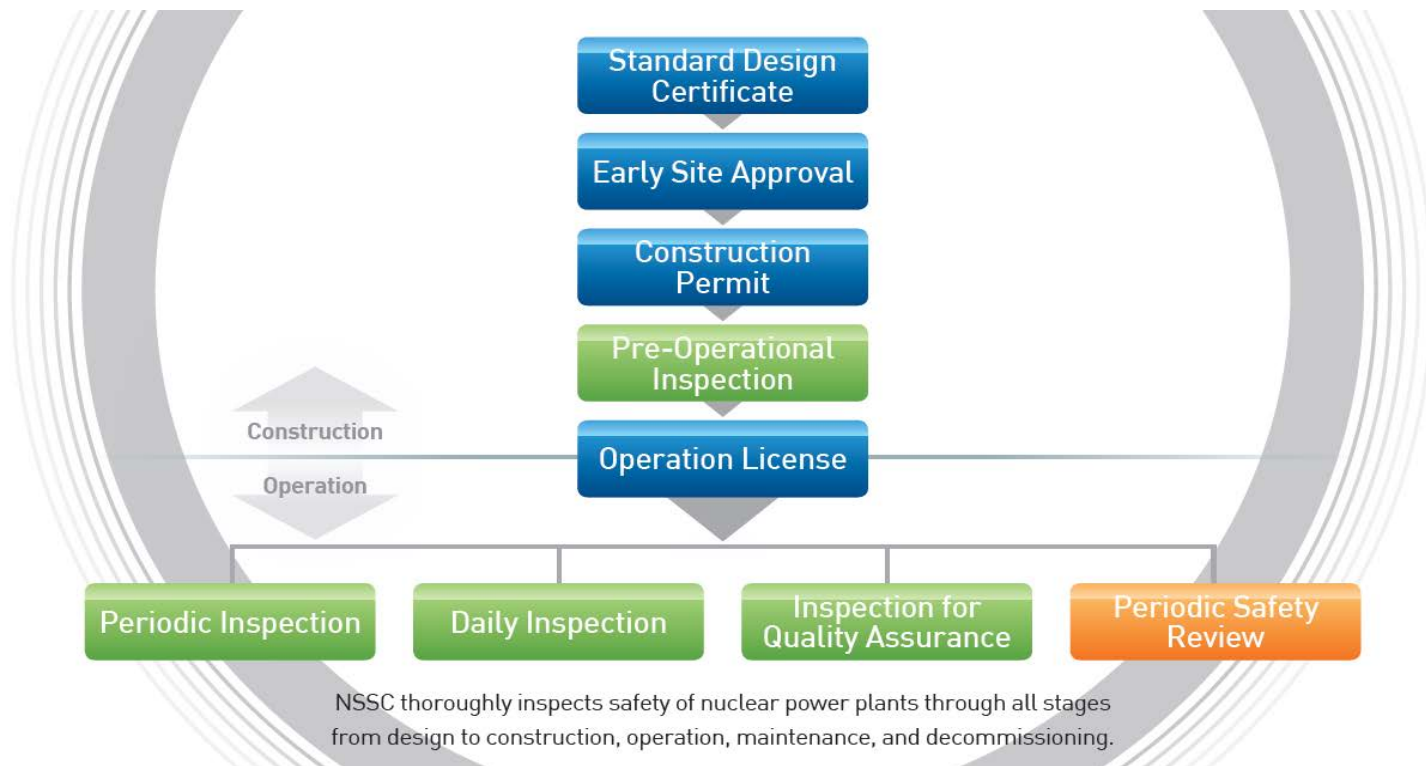


- Entrusted regulatory inspection : Pre-Operational Inspection, QA Inspection, Periodic Inspection, etc.
- Entrusted safety review : Construction Permission Review, Operation License Review, Amendment Review, etc.

- Review and inspection of Nuclear Material Control and Accountancy
- International nuclear material management

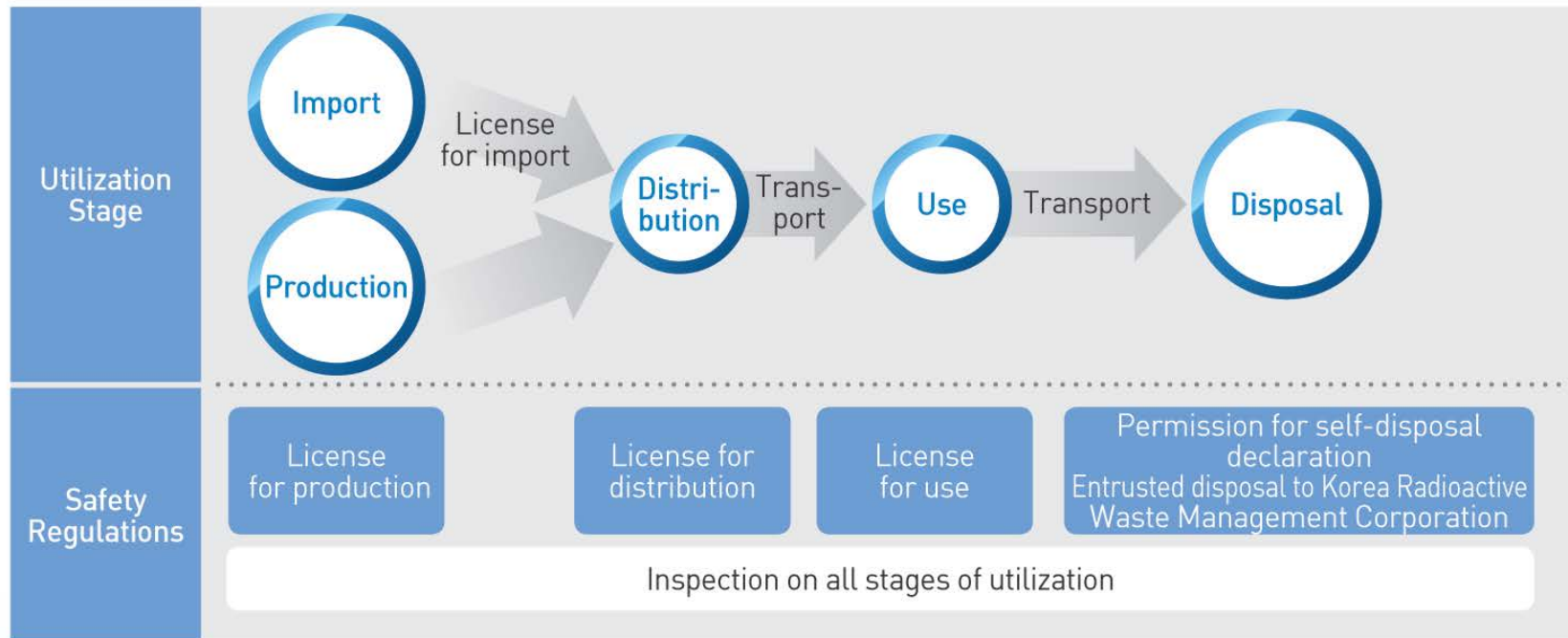
NPP SAFETY MANAGEMENT SYSTEM

■ Nuclear Reactor Regulation Process



RADIATION SAFETY MANAGEMENT SYSTEM

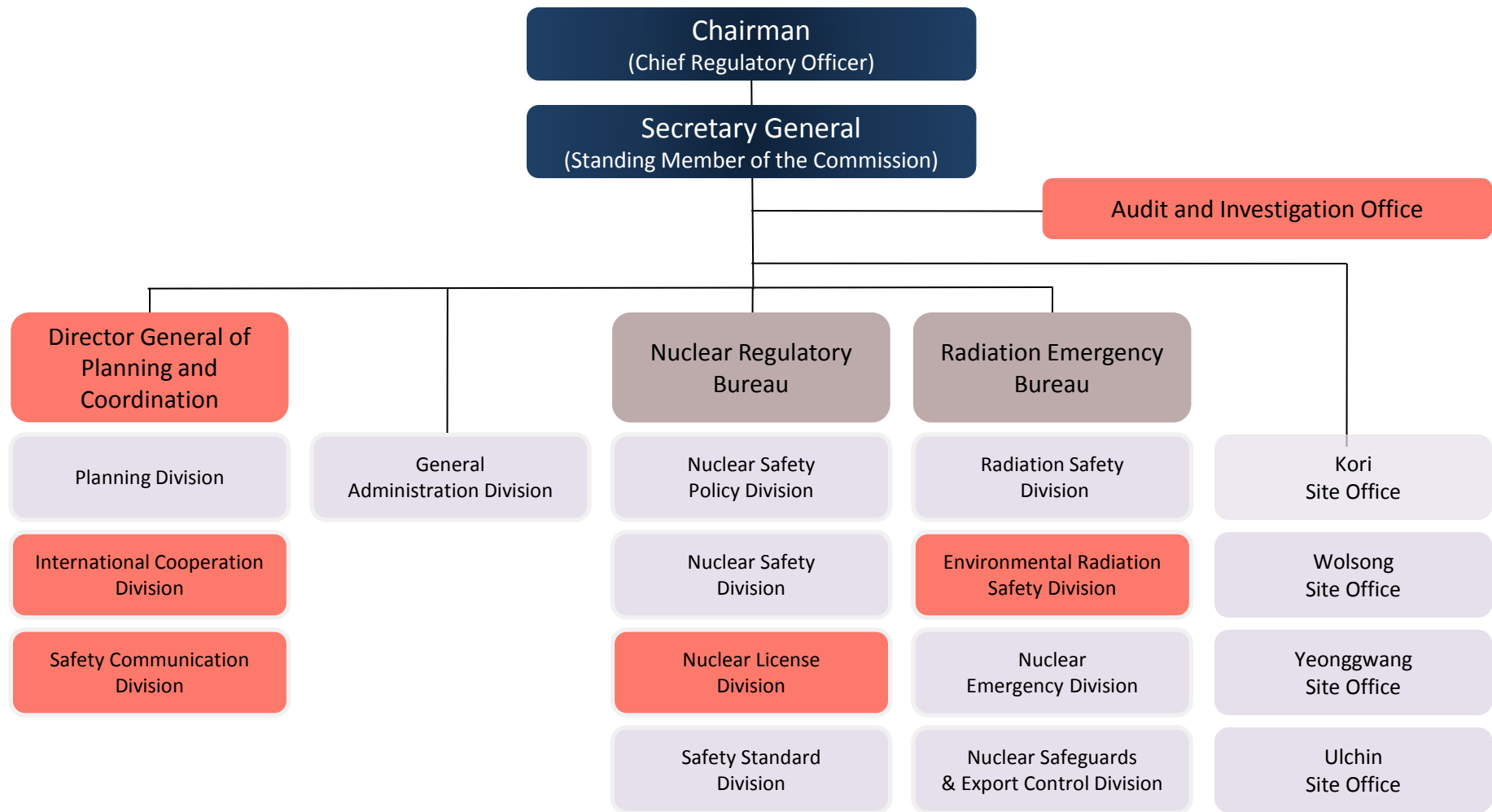
- RI & Radiation Safety Management
- Radioactive Waste Safety Management
- Protective Actions Against Radiation in the Natural Environment



RADIOLOGICAL EMERGENCY MANAGEMENT SYSTEM



ORGANIZATION CHART OF NSSC



OPERATION OF THE COMMISSION

▪ Members of The Commission

- 2 standing members (appointed by President.)
- 7 non-standing members (3, recommended by President, 4, by the National Assembly)

▪ Meetings of The Commission

- 2-3 times a month (at least one regular meeting in a month)
- All meetings are required to be opened to the public

▪ Resolution and Deliberation of The Commission

- Construction Permit, Operation License, life extension permit
- Approval of the use of nuclear materials and radioactive isotopes
- Punishments and sanctions
- Budgets, and etc.,



OPERATION OF THE ADVISORY COMMITTEE

- **The Nuclear Safety Special Committee** (an advisory committee)

- 15 non-standing members
- The Committee provides practical advice, review matters subject to deliberation and resolution in advance, and perform consigned duties.
- Areas: safety analysis, serious accidents, machinery, electricity, geology, physical protection, environment and etc,.

- **Establishment of Special committees**

- A serious accident
- Environmental contamination
- Radiation leak
- A serious exposure to radiation.



MOVES TO STRENGTHEN SAFETY AFTER FUKUSHIMA



Earthquake

- Equipment to automatically shut down reactors was installed



Flooding of Sea water

- Flood barriers were reinforced.
- Flood control gates and water-tight drainage pumps were installed.



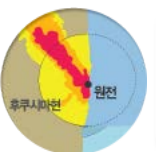
Loss of Power

- Each site secured emergency power generating cars.
- Supplementary EDGs were reinforced.



Hydrogen Explosion

- Hydrogen removal devices that work without electricity were installed.
- Pressure reducing equipment was installed in containment buildings.

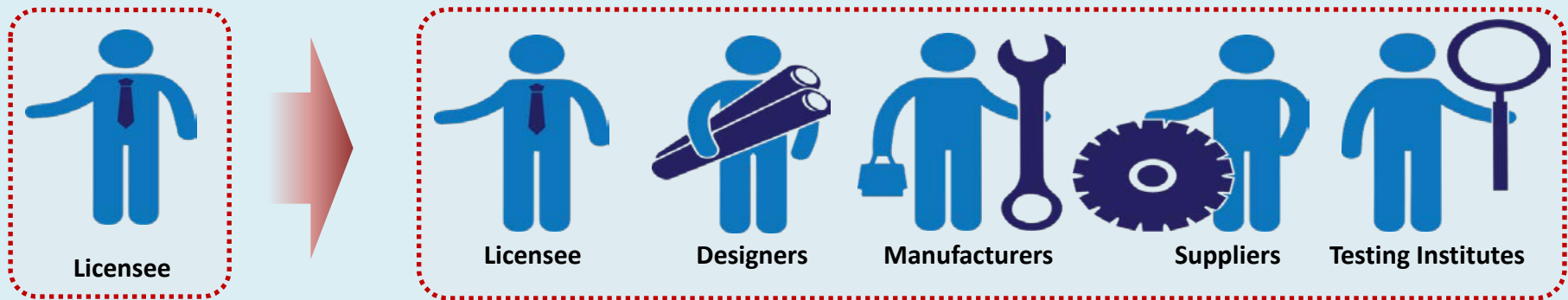


Emergency Response

- Additional protective gears for residents were secured.
- Emergency drills were improved.

RECENT MOVES TO STRENGTHEN REGULATION

- Expansion of the scope of regulation



- Reinforcement of safety culture and quality control

- Special inspections on safety culture
- The interval of quality control inspections: every 2 year to 1 year

RECENT MOVES TO STRENGTHEN REGULATION

■ Equipment and Material Tracking System

- Three parts: design, manufacturing & purchase, and history of operation
- One comprehensive system covering from construction to decommissioning

■ Real-name system

- Recording real names of employees from supply to disposal of all parts and items

■ Environmental Radiation Management

- Radiation monitoring of processed products & radiation monitoring devices in major ports.



Thank You

