

Nuclear Safety Regulation Reform in Japan

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Background of the Reform (1)

- A public trust of nuclear safety policy has completely lost as a result of the accident at TEPCO's Fukushima Nuclear Power Stations.
- The overconfidence of the government and the licensee in their safety measures could not prevent severe accident, which causes massive discharge of radioactive materials to the environment and destroys communities of local citizens.
- The government needs to reconstruct nuclear safety regulation organisation and regulation rapidly, so as to prevent severe accident.

Background of the Reform (2)

- It was not clear where the primary responsibility lies in ensuring citizen's safety in an emergency.
- Also, we cannot deny that the existing organizations and structures hindered the mobilization of capabilities in promptly responding to such a large-scale nuclear accident.

Report of Japanese Government to the IAEA Ministerial Conference on Nuclear Safety (June 2011)

Background of the Reform (3)

- The Japanese Government will separate NISA from METI and start to review implementing frameworks, including the NSC and relevant ministries, for the administration of nuclear safety regulations and for environmental monitoring.

Report of Japanese Government to the IAEA Ministerial Conference on Nuclear Safety (June 2011)

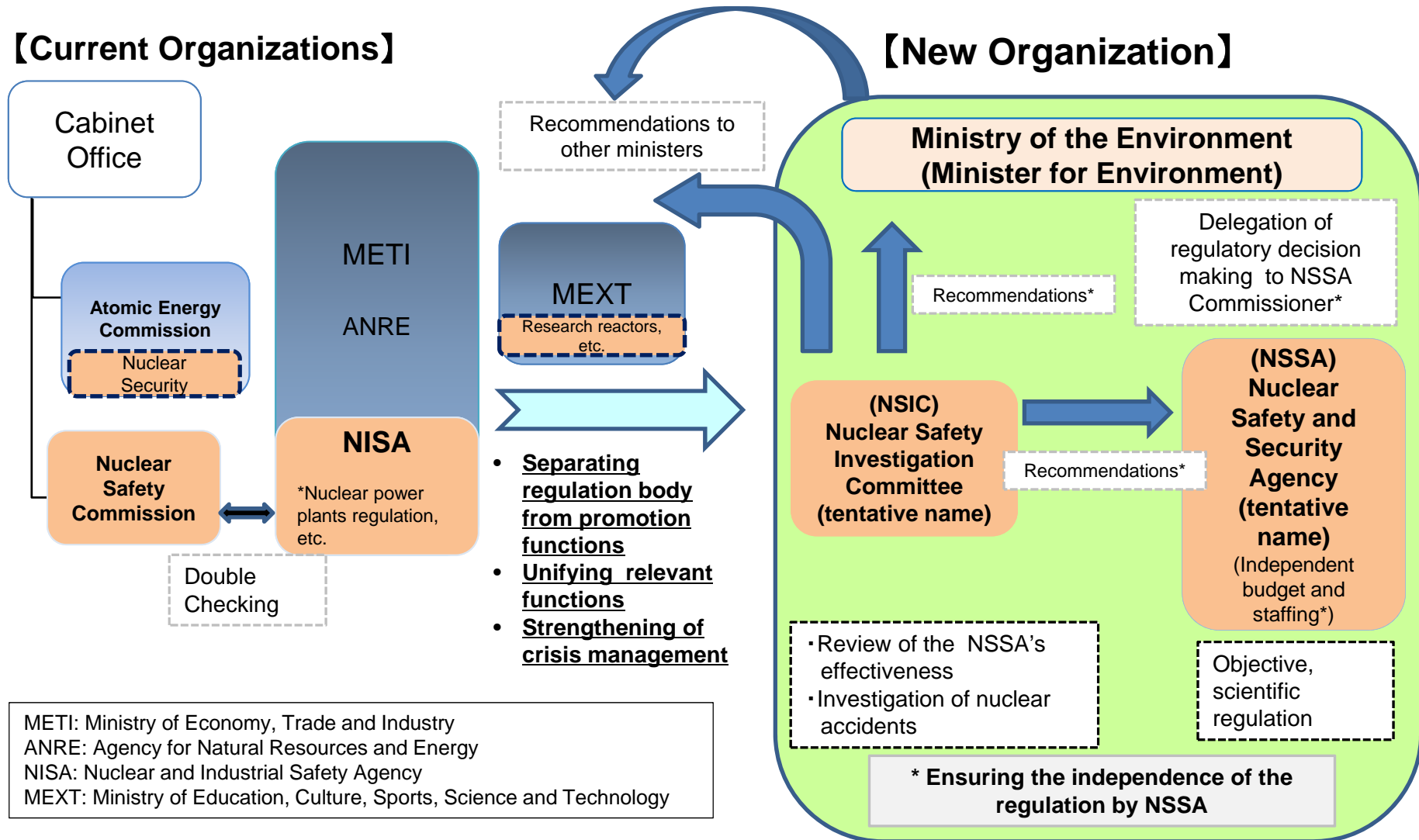
- The NSSA will be created as an Affiliated Organization of the Ministry of the Environment in view of “the separation of nuclear regulation and promotion”, separating the nuclear safety regulation section of the NISA from the METI and integrating the function of the NSC.
- Crisis management including emergency responses is one of the primary roles of the NSSA, and necessary arrangements will be made for this purpose.
- The Cabinet Secretariat will carry out preparation work including drafting necessary bills, aiming to create the NSSA in April 2012.

Cabinet Decision: Basic Policy on the Reform of an Organization in charge of Nuclear Safety Regulation (August 2011)

Process of the Reform

- Report of Japanese Government to the IAEA Ministerial Conference on Nuclear Safety (June 2011)
- Cabinet Decision: Basic Policy on the Reform of an Organisation in charge of Nuclear Safety Regulation (August 2011)
- Recommendation from Advisory Committee for Prevention of Nuclear Accident (December 2011)
- Announcement of the Structure and the Budget of the NSSA (December 2011)
- Announcement of the Draft of Nuclear Safety Regulation (January 2012)
- International Workshop on Nuclear Safety Regulation (January 2012)
- Submission of the Bill to the Diet (January 2012 ?)
- Inauguration of the NSSA and New Nuclear Safety Regulation (April 2012 ?)

Basic System for Nuclear Safety Regulation



Recommendation from Advisory Committee

- Overview of the Advisory Committee -

- Established as an advisory committee for the Minister for the Restoration from and Prevention of Nuclear Accident
- 11 Members (experts in nuclear engineering, social science, public policy and energy policy, Attorney, Media, etc.)
- Intensive discussions
- Recommendation (Independence + 7 Principles)
 - 1) separation of nuclear regulation and promotion
 - 2) integration, 3) crisis management, 4) human resources
 - 5) new nuclear regulation, 6) transparency, 7) internationality

Recommendation from Advisory Committee

- Independence -

- The NSSA must not be affected by any pressure, among other things, the decisions of nuclear promotion and use organisations.
- The independent decision making process must be ensured for the NSSA's supervision against licensees by means of clear legislative standards.
- The main roles of the NSIC are review of the effectiveness of the nuclear safety regulation administrations and assurance of the independence of the regulation administration.
- The members of the NSIC should be designated through the Diet approval and the NSIC should be empowered to provide guidance to the Minister of Environment, the Commissioner of the NSSA and the other related administrations.

Recommendation from Advisory Committee - Principle 1: Separation of Nuclear Promotion and Regulation -

- The principal missions of the NSSA are the prevention of nuclear accidents and crises through nuclear safety regulation and crisis management system.
- The effectiveness of nuclear safety must not be weakened in response to the consideration of nuclear use, in this context, nuclear regulation and promotion must be separated completely.

Recommendation from Advisory Committee - Principle 2: Integration -

- Related administration must be integrated and limited resources must be concentrated, in this context, the NSSA should implement nuclear safety measures including establishment of guidance and standards, licensing, inspection, crisis management, monitoring, research and training.
- The NSSA should be responsible for the budget, legislation and human resource management of nuclear regulation in order to ensure the effectiveness of regulation.

Recommendation from Advisory Committee

- Principle 3: Crisis Management -

- The NSSA should establish and maintain solid crisis management system in order to manage disasters with all administrations under the command of the specific Minister, and the NSSA should have the crisis management expert.
- As an on-site countermeasure against a severe accident, the NSSA should command and check licensees' preparation of necessary equipment and accident response manuals and performance of disaster prevention drills.
- At off-site, the Nuclear Emergency Response Headquarters should take the initiative in collaborating with local governments and key organisations and utilise the outcomes of nuclear disaster prevention training at normal times to lead resident evacuation.

Recommendation from Advisory Committee - Principle 4: Human Resources -

- As a human resource training system, the plan for the establishment of the International Nuclear Safety Training Academy, which contributes to international networking and fostering experts with sufficient scientific and technical capacity through the synergy between nuclear safety research and training, should be realised.
- In order to cultivate and maintain safety culture, the NSSA should establish solid code of conduct and review its safety actions regularly.

Recommendation from Advisory Committee

- Principle 5: New Nuclear Regulation -

- As for the safety objective of nuclear safety regulation, the most important purpose is to ensure proper safety countermeasures in light of scientific and technical standards and avoid a severe accident that leads to the release of large amounts of radioactive materials.
- A legal system that surely incorporates new findings and technologies for safety into existing facilities and the operation of the facilities (so-called back-fitting system) should be introduced.
- The technical criteria for the design of nuclear facilities and accident prevention and mitigation countermeasures (accident management) should be made mandatory by law.
- The NSSA should continuously make efforts to enhance the effectiveness of regulations, improve the treatment and quality of the inspectors and reinforce the research and training system under the supervision of the NSIC.

Recommendation from Advisory Committee - Principle 6: Transparency -

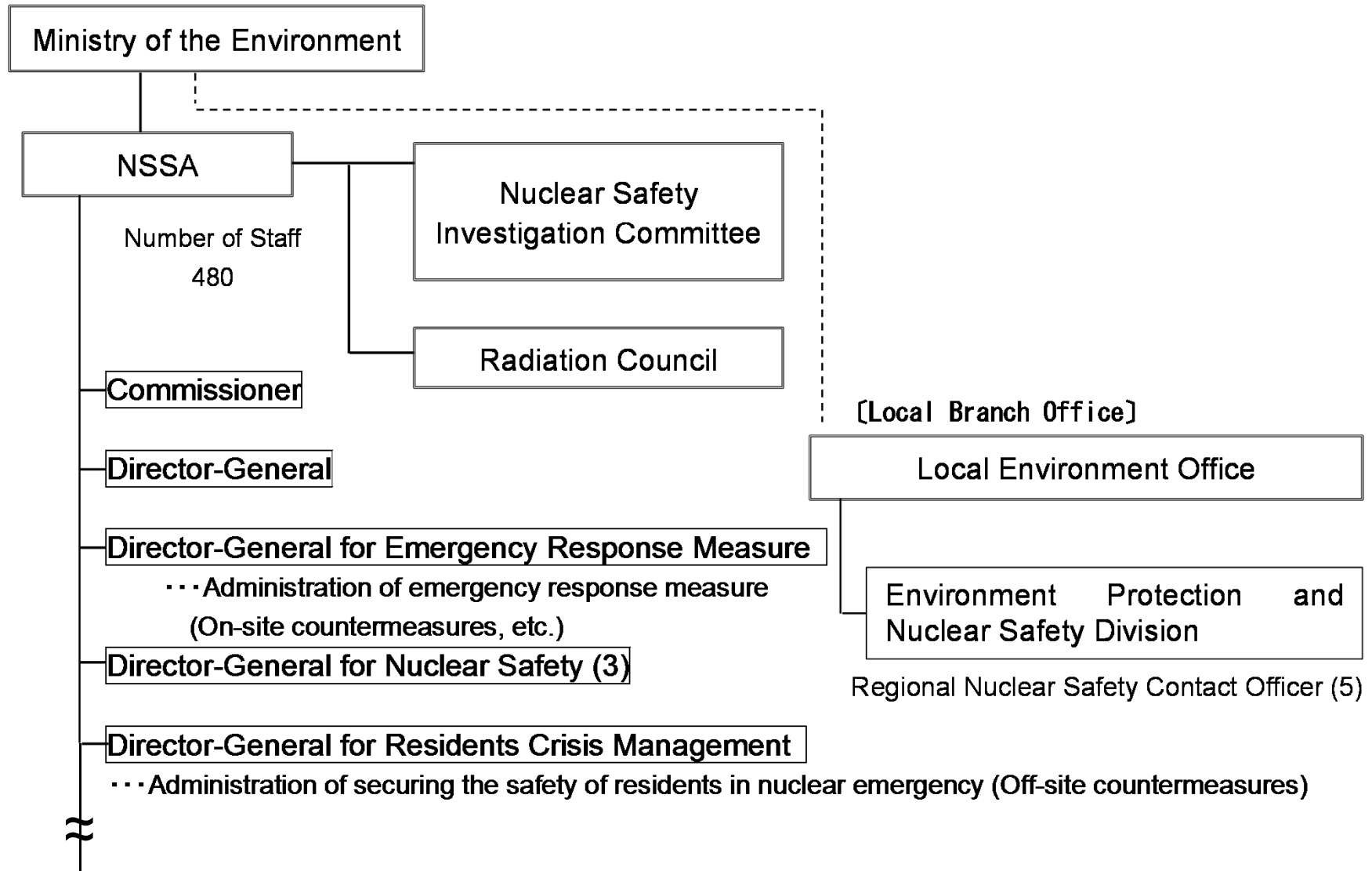
- The nuclear safety policy should ensure transparency by means of regular public announcements of its actions and regulations.
- The risks of nuclear energy should be estimated appropriately, managed sufficiently and explained proactively through risk communication with citizens.

Recommendation from Advisory Committee - Principle 7: Internationality -

- The staffs of the NSSA should accept new and diverse international knowledge regularly, in this context; international human resource exchanges and communications should be sought.
- The International Nuclear Safety Training Academy should work as a strategic institute, which underpins not only Japan's presence in international society but also global standardisation of the Japanese standards, through providing the opportunities for foreign countries to study Japanese new nuclear regulation system.

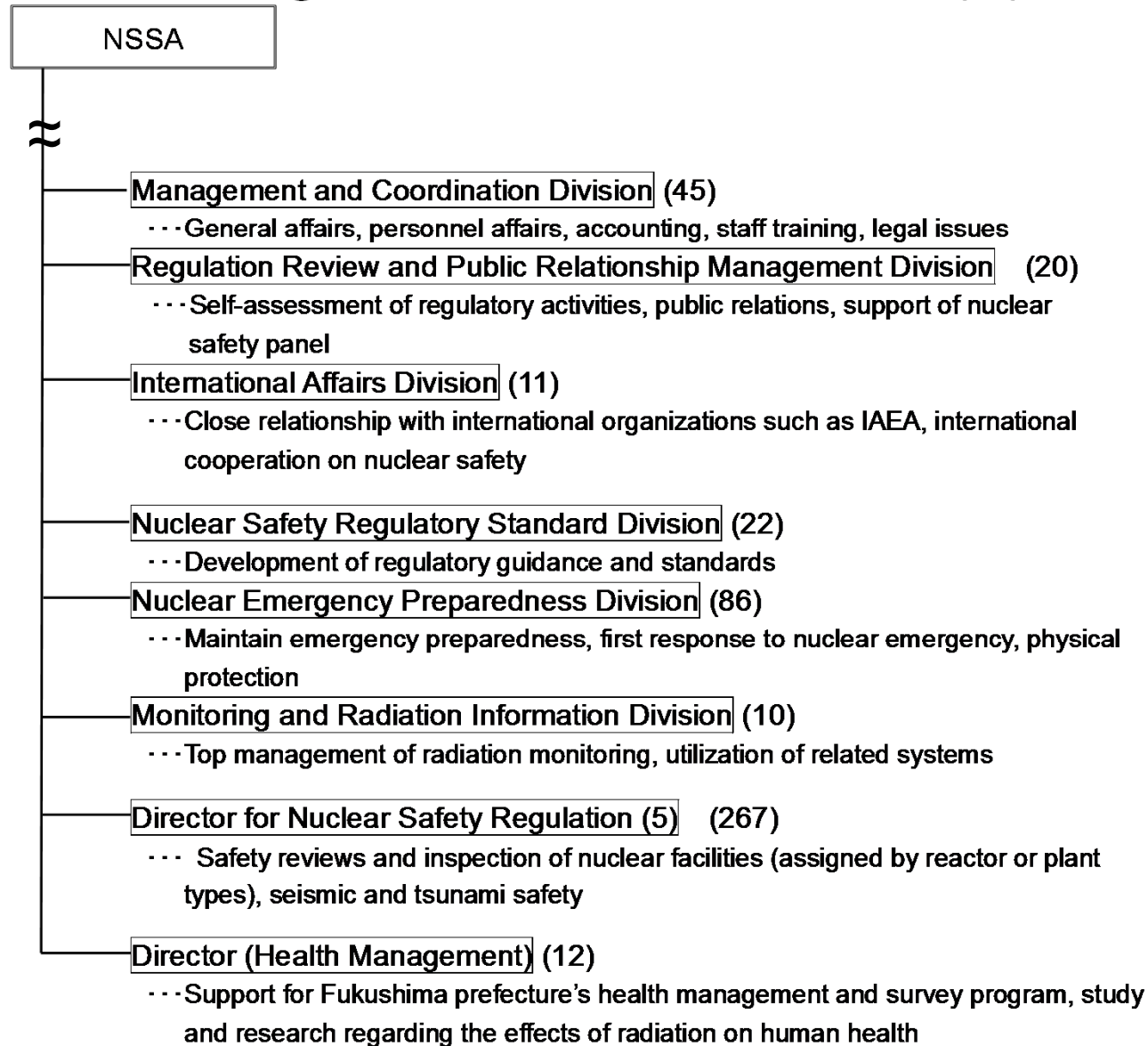
Main Items of Our Draft Reform (1)

- Organisational Structure (a) -



Main Items of Our Draft Reform (1)

- Organisational Structure (b) -



Main Items of Our Draft Reform (2)

- Independence -

- Authority to make an administrative decision on nuclear safety regulation is to be legally delegated from Minister for Environment to the NSSA Commissioner.
- In peacetime, it is legally not admitted that Minister for Environment overrides a decision by the NSSA Commissioner on individual administrative decision.
- The NSSA Commissioner will have authority to independently appoint and dismiss its officials.
- The NSSA Commissioner will be empowered to make recommendations, through Minister for Environment, to the head of relevant government organizations on policy actions for ensuring nuclear safety measures.
- It will also be able to request a report about the status of these policy actions taken based on its recommendations.
- The budget of NSSA will be secured in the newly created budget category (“Nuclear Safety Regulation Measures”) in the Special Account for Energy Policy after changes of the relevant law, which will enable to establish an independent budget account, separating from the promotion of nuclear energy.

Main Items of Our Draft Reform (3)

- New Nuclear Safety Regulation -

- The new regulation features protecting human being and the environment from harmful effects of ionizing radiation.
- Dealing with “the unexpected” - the new regulation takes severe accidents into consideration.
- Regulation based on the latest knowledge - the new regulation applies latest scientific / technical knowledge on safety issues to existing facilities (back-fitting).
- An operational limit of 40 years, in principle, will be introduced to ensure the safety of aged power reactors.
- Specified licensee’s responsibility - a licensee’s responsibility to constantly improve the safety of its facilities.
- Thorough protection of the lives and health of citizens in case of nuclear disasters.
- Unification of legislation - separation from the Electricity Business Act.

Main Items of Our Draft Reform (4)

- Crisis Management -

- Organisational reform for strengthening crisis management: Director-General for Emergency Response Measure (on-site countermeasures), Director-General for Residents Crisis Management (off-site countermeasures) and a section for crisis management.
- Regional emergency preparedness will be reinforced by Nuclear Safety Inspectors' Offices that locate near the nuclear facilities Regional Nuclear Safety Contact Officers dispatched at related prefectures, and Environment and Nuclear Safety Divisions created in each Local Environment Office.
- Reinforcement by reforming the Act on Special Measures concerning Nuclear Emergency Preparedness – the structure and function of the Nuclear Emergency Response Headquarters will be enhanced.
- Better preparations by revising the national and regional disaster management plans.
- Reinforcement of the crisis management system by improvement of the off-site centres and other measures.

Actions to Be Taken

- Nuclear safety regulation reform is urgent and we must inaugurate the new regulatory system in this April.
- Nuclear safety regulation system needs to be reviewed and improved continuously.
- Next nuclear safety regulation reform (2nd Stage) is scheduled by around the end of 2012 in light of the ongoing review on nuclear and energy policy and the investigation on the accident.
- Comments and suggestions from international society are welcome for our further review.