

# **Undertaking for safety regulation of radioactive waste disposal**

Nuclear and Industrial Safety Agency (NISA)  
Radioactive Waste Regulation Department

- The Radioactive Waste Regulation Department was inaugurated with the establishment of the Nuclear and Industrial Safety Agency.
- It takes charge of decommissioning and clearance system of nuclear facilities, with regulations concerning the disposal project based on the "Nuclear Reactor Regulation Law".

## **Role of the NISA**

- Reinforcement of the regulation of decommissioning
- Introduction of a clearance system
- Development of the regulatory system on the geological disposal

**Main undertaking toward  
system development**

## 1. Background

- March, 1998: Operation of the Japan Atomic Power Tokai power plant terminated.
- October, 2001: The dismantling notification based on the Nuclear Reactor Regulation Law submitted.



Decommissioning well underway, masses of waste materials upon dismantling generated

- May, 2005: The Nuclear Reactor Regulation Law amended

## 2. Outline of Amendment

- Reinforcement of the regulation of decommissioning
  - Change of procedure from on the notification system to on the approval system
  - Implementation of step-by-step safety regulations
- Introduction of a clearance system
  - Setting up of a clearance level
  - Two-step confirmation by the government (on measurement method and result)



- Decommission plan of Tokai power plant, Fugen, Hamaoka No. 1 and No.2 were approved.
- Clearance of ca. 400 tons of waste materials (metal) was confirmed.

**Reinforcement of the regulation of decommissioning,  
Introduction of a clearance system**

## 1. Background

- June, 2000: Legislation on the Final Disposal of Specific Radioactive Waste established.
- October, 2000: The Nuclear Waste Management Organization of Japan (NUMO) established.



Development for safety regulations of high-level radioactive wastes etc. required

- June, 2007: The Nuclear Reactor Regulation Law amended.

## 2. Outline of Amendment

Introduction of a safety regulatory system concerning geological disposal

- Approval for operation
- Approval for the design and method of works, Pre-service inspection
- Approval and confirmation of the closure (backfilling of tunnels), the decommissioning plan, etc.

# Development of the regulatory system on the geological disposal

- Regulation based on the step-by-step approach in the siting stage of geological disposal.
- Regulation along with the progress of decommissioning.  
(e.g. basic concepts of the subsurface disposal of reactor internals and the site release criteria, etc.)
- Clearance intended for uranium waste etc.
- Regulation based on the progress of the disposal of waste from research facilities etc.

Utilization of knowledge within and outside the country.

Promotion of regulatory support research based on regulatory needs.

### **Future issues**

**- based on the report of the Nuclear and Industrial Safety Department Basic Policy Subcommittee -**

- In order to establish and maintain the competence required for regulations for the position of NISA, technically important issues were extracted based on safety research road maps suggested by academic societies, etc.
- The results of technological development by implementors are positively utilized for safety regulations after checking the quality.
- The Nuclear Energy Safety Organization (JNES) drew up research items which should be implemented looking ahead next five years as the research program, and they were discussed within both of the waste safety and the decommissioning safety subcommittees.

## **Regulatory support research plan**

- Research implementation structure
- Cooperation with the relevant organizations and bodies
- International contribution
- Positive utilization of standards approved by academic societies
- Communication with general public

**Procedures for the regulatory support research**



- Strict and exact implementation of the safety regulations
- Development of the necessary regulatory systems and criteria
  - Clearance for uranium
  - Endorsement of academic standards concerning the decommissioning, etc.
- Embodiment of the regulatory support research concerning the geological disposal

**Current undertaking**