



BADAN PENGAWAS TENAGA NUKLIR
Nuclear Energy Regulatory Agency



National Strategies in Managing Disused Sealed Radioactive Sources – Indonesian Experience

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Country Presentation

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of Disused Sealed Radioactive Sources,
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Act No. 10/1997 on Nuclear Energy (1)

- ❑ Implementing Body (National Nuclear Energy Agency (**BATAN**): Research and Development including Radioactive Waste Management
- ❑ Regulatory Body (Nuclear Energy Regulatory Agency (**BAPETEN**): Regulation, Licensing, and Inspection

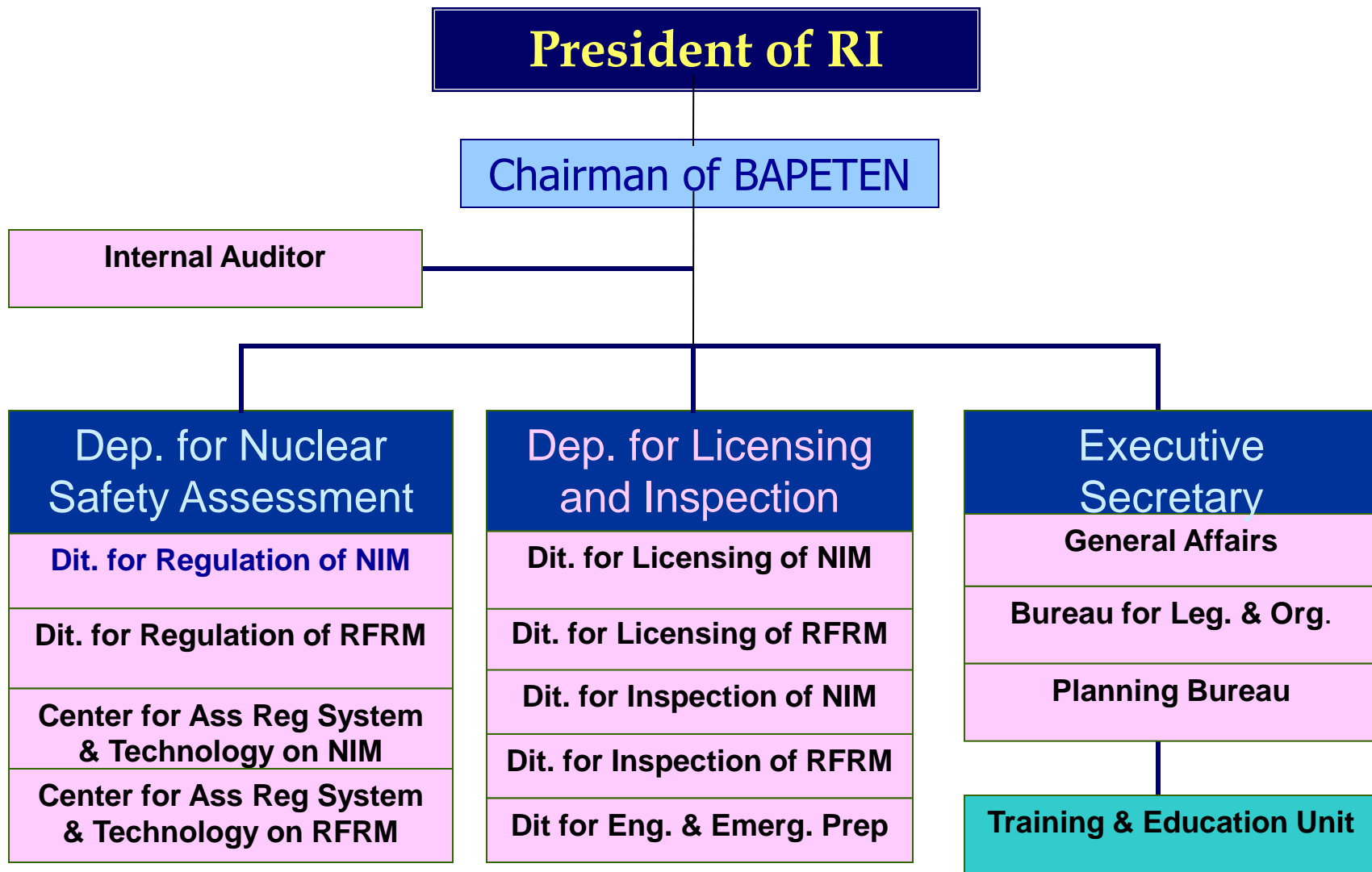


Act No. 10/1997 on Nuclear Energy (2)

- the Implementing Body conducts research and development, general surveys, explorations and exploitations of nuclear ore, raw material production for manufacturing and fabrication of nuclear fuel, production of radioisotopes for research and development, and radioactive waste management.
- the Regulatory Body establishes regulations, licensing processes and inspections.



Organisation Structure of BAPETEN





Regulation related to the Sealed Radioactive Sources (including DSRS)

- GR No. 33/2007 on the Safety of Ionizing Radiation and the Security of Radioactive Sources
- GR No. 29/2009 on the Licensing of Ionizing Radiation and Nuclear Material
- BAPETEN Chairman Decree No. 7/2007 on the Security of Radioactive Sources
- Government Regulation (GR) No. 27/2002 on the Radioactive Waste Management (under amendment process)
- GR No. 26/2002 on the Safe Transportation of Radioactive Material



GR No. 33/2007 on the Safety of Ionizing Radiation and the Security of Radioactive Sources

- Management Requirement
- Radiation Protection Requirement
- Technical Requirement
- Safety Verification
- Security of Radioactive Sources (including Export and Import)
- Intervention



GR No. 29/2009 on the Licensing of Ionizing Radiation and Nuclear Material

- Licensing based on grading approach (3 license groups)
- Administrative and Technical Requirement
- Inspection during licensing, if necessary
- The applicant shall declare their option on management of radioactive source



Issues related to the Code of Conduct and the Joint Convention (1)

- Adopted and adapted BSS for GR No. 33/2007 and GR No. 29/2008
- Regulation considering the safety and security requirement
- Detailed requirement on the BAPETEN Chairman Decree (facility, personnel, equipment/devices, and procedure)



Issues related to the Code of Conduct and the Joint Convention (2)

- Indonesia has signed the Joint Convention on 6 October 1997
- Will ratify in the beginning of next year (2011)



Implementation of Regulation regarding the security of radioactive sources

- Facility of Radiotherapy, Irradiation, and RWM has been equipped by security devices (CCTV, Motion Detector, Remote Monitoring System, etc)
- BAPETEN has trained the security guard for radiotherapy and RWM facility, as well as industrial radiography.
- BAPETEN has assist the operator in developing the security program of radioactive sources



Export and Import

- Adopting the Guidance on the export and import of radioactive sources
- Interdepartmental networking and data exchange through the System of Indonesia National Single Window (INSW)
- Developing an Integrated Information System (Custom, BAPETEN, Ministry of Trade, etc)
- Customs Department operates gamma scanner



Government Regulation (GR) No. 27/2002 on the Radioactive Waste Management

- Radioactive waste (RW) (including DSRS): Returned to Origin Country or Transferred to Radioactive Waste Management Facility (BATAN)
- RW managed in centralized facility (BATAN)
- No option for Recycle Process (considered as an option in amending GR)



Centralized Radioactive Waste Management Facility



- The Radioactive Waste Technology Center (RWTC) has capabilities to treat liquid waste, spent resin, combustible waste, high active waste, and sealed source.
- RWTC is equipped with evaporator, compactor, incinerator, chemical treatment, conditioning facilities for spent sources, interim storage, and the ISSF for storing spent fuels from the research reactor





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Thank You