




Indonesia

Indonesia's Activities to Improve Safeguards and Nuclear Security

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IAEA Forum on Nuclear Nonproliferation and Peaceful Uses of Nuclear
Energy in the Asia Pacific Region
Tokyo. 24-25 June, 2008



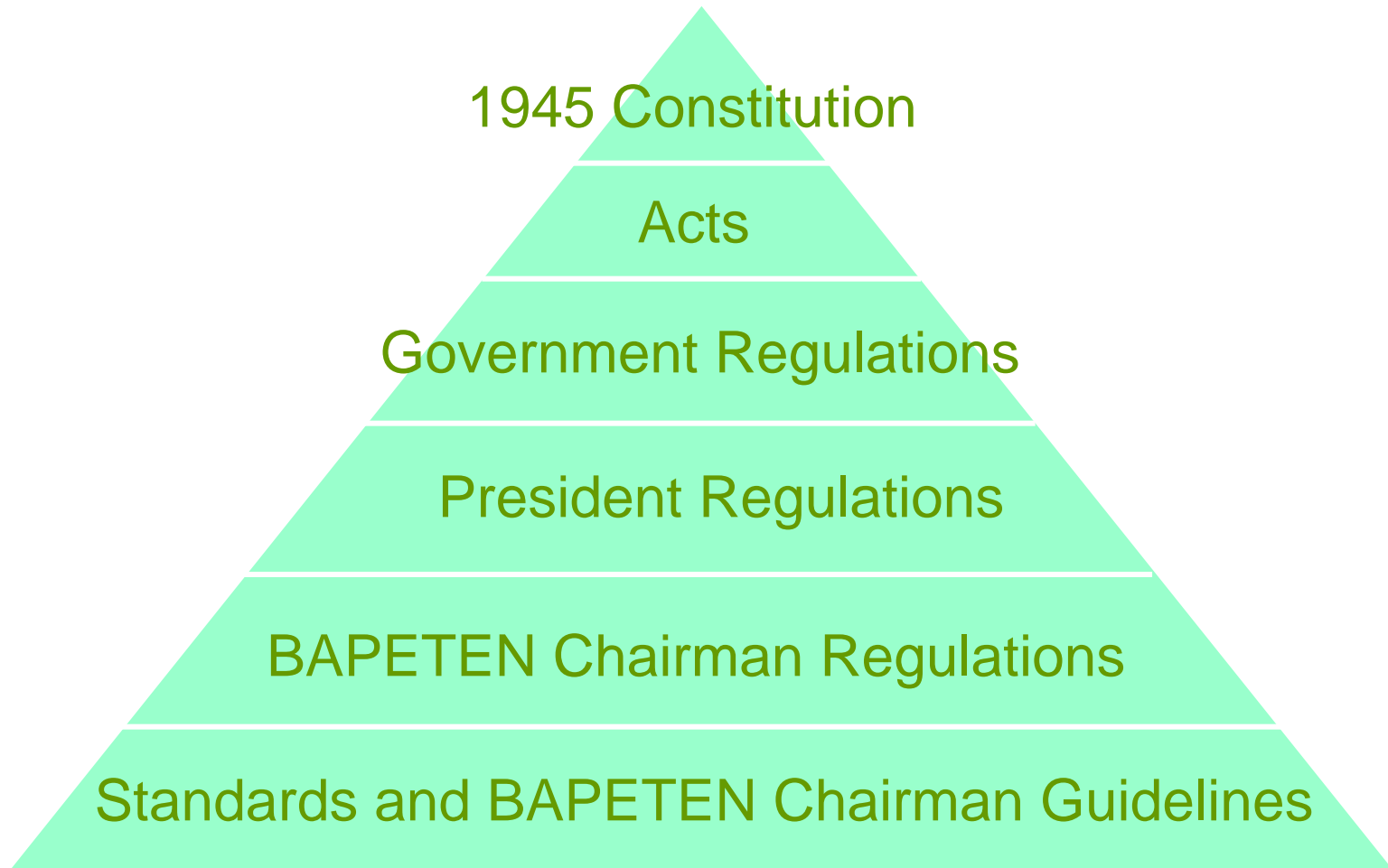
Agenda

- Regulatory framework
- Current activities
- Some important issues
- International and regional cooperation
- Closing remarks





Regulatory framework (1)





Regulatory framework (2)

ACTS:

- **Act No. 10/1997 on Nuclear Energy** as the bases of any nuclear energy (including radiation and radioactive sources) utilization in Indonesia:
 - Separation of Executive (Promotion) Body with Regulatory Body;
 - Function of regulatory body in Regulation, Licensing and Inspection;
 - Objectives of regulatory activities includes: to ensure prosperity and security of the people of Indonesia, to prevent non-peaceful the uses of nuclear materials, and to promote nuclear safety culture.
 - Nuclear materials are authorized by the Government and their utilization is controlled by the Government (Regulatory Body).
- **Act No. 8/1978 on the Ratification of NPT;**
- **Act No. 9/1995 on the Ratification of SEANWFZ.**



Regulatory framework (3)

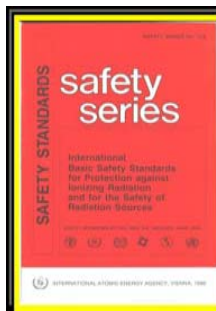
- President Decree no 49/1989 on the Ratification of Convention on the Physical Protection of Nuclear Materials (CPPNM):
 - Indonesia signed CPPNM on July 3, 1986,
 - Indonesia also signed the Amendment of Convention on the Physical Protection of Nuclear Materials and Nuclear Facilities (CPPNMNF) in 2005,
 - Ratification of CPPNMNF is in the process.



Regulatory framework (4)

GOVERNMENT REGULATIONS (GR)

- GR No. 43/2006 on the Licensing of Nuclear Reactor:
 - made it possible for the development & operation of NPP;
- GR No. 33/2007 on the Safety of Ionizing Radiation and the Security of Radioactive Sources:
 - amending GR No. 63/2000 on the Safety and Health against the Utilization of Ionizing Radiation,
 - adopting main concept of the IAEA BSS-115;
- GR No. 29/2008 on the Licensing of Ionizing Radiation Sources and Nuclear Materials Utilization;
- GR on the Safety and Security of Nuclear Materials and Installation (Final Draft).





Regulatory framework (5)

BAPETEN'S CHAIRMAN REGULATIONS (BCR)

- BCR No. 02P/1999 on the Physical Protection of Nuclear Materials;
- BCR No. 17/1999 on the Working Permit for Nuclear Installation Personnel;
- BCR No. 2/2005 on the State System Accounting for and Control of Nuclear Materials (SSAC):
 - based on INFCIRC/153(Corr),
 - amending CD No 13/1999 on the SSAC;
- BCR No. 9/2006 on the Additional Protocol to Safeguards Agreement:
 - based on INFCIRC/540(Corr),
 - Indonesia signed the Additional Protocol in 1999,
 - First declaration of Additional Protocol May 20, 2000;
- BCR No. 9/2008 on the Guideline for Additional Protocol.
- Note: Indonesia has implemented the Integrated Safeguards regime since 2003.



President of RI

Chairman of BAPETEN

Expert Commission

Executive Secretary

Bureau of Admin.

Bureau of Planning

Bureau of Legal
Affair & Organization

**Deputy Chairman for
Licensing & Inspection**

Dir. of Licensing for Radiation
& Radioactive Materials Facility

Dir. of Inspection for Radiation
& Radioactive Materials Facility

Dir. of Licensing for Nuclear
Materials & Installation

Dir. of Inspection for Nuclear
Materials & Installation

Dir. of Eng. Support & Nuclear
Emergency Preparedness

**Deputy Chairman for
Nuclear Safety Assessment**

Center of Assessment for Reg.
System & Technology of Radiation
& Radioactive Materials Facility

Center of Assessment for Reg.
System & Technology of Nuclear
Materials & Installation

Dir. of Regulation for Radiation
& Radioactive Materials Facility

Dir. of Regulation for Nuclear
Materials & Installation

Internal
Auditor





Current Activities

- Regulatory review in harmonizing existing regulation with the IAEA recommendation and best international practice.
- Licensing of Nuclear Installations and Nuclear Materials.
- Inspection of Safeguards and Physical Protection to all Nuclear Facilities:
 - Routine,
 - Ad hoc,
 - Special, and
 - To accompany the IAEA safeguards inspectors.



Current Activities

- Human Resource Development:
 - For BAPETEN inspector: Safeguards and Nuclear Safety (incl. Physical Protection) Training Program (National and Regional);
 - For BAPETEN, BATAN, Customs and related Departments:
 - Additional Protocol Commodity Identification Training (CIT) Workshop, November (US- DOE)
 - Weapons of Mass Destruction CIT, April 2008 (US-DOE)
 - NTC on the use of Detection Equipments for Front Line Officers in Cooperation with the IAEA;
 - For Nuclear Facility staff: Training and certification program for the Handler and Supervisor of Nuclear Materials;
 - NTC on SSAC and Physical Protection in cooperation with the IAEA;



Current Activities

- Improvement Program in BAPETEN:
 - Updating inspection method and procedures,
 - Development of National DBT,
 - Training and qualification of safeguards and physical protection inspectors;
- Development of (Regional?) Safeguards Laboratory:
 - Operational and Training Laboratory;
 - Need more equipments: NDA instruments, secure communication links, database reporting system,
 - Development of documentation system: QA and technical procedures.
- Physical protection at facility level:
 - Upgrading physical protection at the existing facilities,
 - Development of Local DBT.



Current Activities

INTERNATIONAL COOPERATION:

- BAPETEN and US DOE Arrangement on Safeguards and Security of Nuclear Materials:
 - Scope: HRD, Development of Safeguards NDA Laboratory, Safeguards Training Center, and Regulatory Development.
- BATAN AND US-DOE Arrangement on Physical Protection System for Upgrading of the Three Research Reactors.
- BAPETEN, ANSTO AND US-DOE on Regional Radiological Security Partnership.



Current Activities

NATIONAL COOPERATION/COORDINATION.

- Ministry of Finance (DG of Custom and Excise and DG of Prevention and Investigation).
- Ministry of Foreign Affairs
- National Police
- Ministry of Defense
- National Intelligence Agency
- Ministry of Industrial and Commerce
- National Disaster Management Agency

Scopes:

- Development of National Design Basic Threat for Nuclear Facilities.
- Development of National System related to import and export control as mentioned on Annex II of AP and prevention of Illicit Trafficking of NM.



The IAEA Missions

- International Physical Protection Advisory Service Mission (IPPAS) 2001 & 2007;
- International Nuclear Security Advisory Service Mission (INSServ), 2004;
- International SSAC Advisory Service Mission (ISSAS), 2004.



Some important Issues

- Human Resource Development:
 - Ageing of staff both in BAPETEN and in the facilities;
- Ageing of nuclear installation:
 - All facilities are aged of more than 20 years of old.
- The introduction of NPP:
 - Needs more training program. For example, on NDA, MUF (Materials Unaccounted For), etc.
 - Documentation and instrument improvements.
- Combating (international) terrorism:
 - Empowering related departments: Trade, Transportation, Customs, Port Managements, Police, Arm Forces, etc.
 - Regional and International cooperation.
- Harmonizing legal framework with best international practice.



International/regional cooperation

- The Cooperation shall be based on mutual understandings;
- The aims shall be merely for the peaceful uses of nuclear materials;
- Enhancement and empowerment program:
 - Regulatory body in ensuring safety, security and safeguards,
 - Related departments in prohibiting illicit trafficking of nuclear and radioactive materials, and in combating terrorism,
 - Nuclear facilities in performing SSAC and physical protection;
- Framework of Regional Cooperation:
 - Regional Training Centre for Safeguards and Physical Protection



Conclusions

- Indonesia has established Independence Regulatory Body (BAPETEN) since 1998 in ensuring Safety, Security and Safeguards:
- Indonesia has demonstrated:
 - its committed to objectives of Additional Protocol to Safeguards Agreement and has shown the assurance to prevent diversion uses of nuclear materials;
 - its compliance with the provisions of the CPPNM ;
- Indonesia has continuing to build and to develop the capacity building through international cooperation (bilateral) and national coordination;
- Important issues, such as: HRD, ageing, introduction of NPP, international terrorism, and harmonizing the legal framework should be faced with capacity building through regional and international cooperation.



Thank you...

