Nuclear Law and Malaysian Legal Framework on Nuclear Security

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Nuclear Law

• The body of law which governs the principles of nuclear energy and its legislative process and procedures
• Licensing, Inspection and Enforcement
• Radiation Protection and Safety
• Emergency Response and Management
• Transport of Radioactive Material
• The Management of Radioactive Waste
• Decommissioning
• Nuclear Liability in Cases of Nuclear Accidents
• International Trade of Nuclear Materials
• IAEA Guides, Standards and Codes.
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<th>Issues</th>
<th>Milestone 1</th>
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<th>Milestone 3</th>
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<td>Legislative framework</td>
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<td>Nuclear fuel cycle</td>
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State-of-readiness assessment carried out at each Milestone
CABINET COMMITTEE ON ENERGY

NUCLEAR POWER DEVELOPMENT STEERING COMMITTEE

Ministry of Energy, Green Technology & Water

NUCLEAR POWER PROGRAM WORKING COMMITTEE

Malaysia Nuclear Agency
- Educational Program & Public Awareness
- Human Capital Development
- Technology Assessment

NUCLEAR POWER PROJECT WORKING COMMITTEE

Tenaga Nasional Bhd. (TNB)
- Site ID
- Nuclear Fuel Procurement Planning
- NPP Conceptual Design (inc. PM & QA)

REGULATORY DEVELOPMENT COORDINATION WORKING COMMITTEE

Atomic Energy Licensing Board (AELB) & Energy Commission (EC)
- Regulation & Licensing of Electricity Generation
- Regulation & Licensing of NPP
Malaysian Legal Framework on Nuclear Energy

- Main Legislation – Atomic Energy Licensing Act 1984 (Act 304
- Regulations & Approvals
- Radiation Protection (Licensing) Regulations 1986
- Radiation Protection (Basic Safety Standard) Regulations 1988
- Radiation Protection (Transportation) Regulations 1989
- Radiation Protection (Appeal) Regulations 1990
- Import & Export Guidance for Radioactive Material (Category 1 & 2) including online permits
Atomic Energy Licensing Act, 1984 (Act 304)

- **Act**: provides the basic law concerning the development and utilization of atomic energy and safety regulations.
- **Regulations**: provides more detailed provisions entrusted by the Act.
- Provides additional requirement which not stated in the regulations or special matters related to provisions entrusted by the Act
- Provides guides, codes and standards to comply with and achieve goal impose in regulations
Radiation Protection & Security Infrastructure

- Establishment of emergency planning and preparedness: cooperation with National Disaster Centre
- Lead Agency for Radiological Emergency
- Launch inter-agency National Drill
- Technical Support Organization (TSO): Nuclear Malaysia Agency
- Cooperation with relevant government agencies have been established: Ministry of Health, Royal Customs Malaysia, Royal Malaysian Police etc.
Normative Role of IAEA

• The IAEA as a Party to an Agreement

• The IAEA as a Forum/Depositary

• The IAEA as a Standard Setting Organization
Offences related to Nuclear terrorism

- Conventions:
  - 1980 Physical Protection of nuclear material (*in force*)
  - 1997 Terrorism Bombing Convention (*in force*)
  - 2005 Protocol to the Maritime Safety Convention
  - 2005 Protocol to the Fixed Platforms Protocol
  - 2005 Nuclear Terrorism Convention (*in force*)
- UN Security Council resolutions:
  - (1373)(1456)(1624)(1822)
  - 1540 (2004)
- UN General Assembly resolutions inviting states to sign and ratify the Nuclear Terrorism Convention:
  - 59/290, 60/73, 62/71, 62/172 (mandates of the Terrorism Prevention Branch of UNODC)
Domestic Legislations- Issues on security, liabilities and offences (19 legislations)

- Official Secret Act 1972
- Data Protection Act
- Sedition Act 1948
- Printing Press and Publication Act 1984
- Prevention of Crime Act 1959
- Criminal Justice Act 1953
- Penal Code (Act 574)
- Criminal Procedure Code (Act 593)
- Public Order Preservation Act 1958
• Immigration Act 1959
• Police Act 1967
• Official Secret Act 1972
• Mutual Assistance in Criminal Matters Act 2002
• Extradition Act 1992
• Arms Act 1960
• Firearm (Increased Penalties) Act 1971
• Explosives Act 1957
INTERNATIONAL LEGAL INSTRUMENTS

1) Convention on Nuclear Safety 1994;
2) Convention on Early Notification of a Nuclear Accident 1986;
3) Convention on Assistance in the case of a Nuclear Accident or Radiological Emergency 1986;
4) Convention on Physical Protection of Nuclear Material (CPPNM) and 2005 Amendment;
5) Convention on Suppression of Acts of Nuclear Terrorism (CNT);
6) 1963 Vienna Convention on Civil Liability for Nuclear Damage;
7) 1997 Protocol to amend the 1963 Vienna Convention on Civil Liability for Nuclear Damage;
8) Comprehensive Safeguards Agreement (CSA);
9) Additional Protocol pursuant to Comprehensive Safeguards Agreement;
10) Nuclear Non-Proliferation Treaty (NPT);
11) Treaty on South-East Asia Nuclear Weapon-Free Zone (SEANWFZ);
12) Code of Conduct on the Safety and Security of Radioactive Sources;
Malaysia Nuclear Liability Policy and Approach

- To adopt international best practice and international obligations;
  - *Vienna Convention on Civil Liability of Nuclear Damage*;
  - Convention on Supplementary Compensation for Nuclear Damage
- To ensure national legal framework is in place:
  - introduce to national legal framework - amendment of Act 304
- To ratify to relevant international obligations.
Challenges

- Strong legal and institutional framework that facilitate the production of nuclear energy
- Aspects on governance - independence
- Licensing Issues- Interface between state and federal, intergovernmental
- Harmonization with other acts and regulations
- Public acceptance
- Nuclear liability
- Waste management program
- Human Capital /Expertise
- Adherence to legal instruments relating to Nuclear Security
## Key Challenges in Nuclear Power Deployment

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<th>Challenge</th>
<th>Potential resolution</th>
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<tr>
<td><strong>Public Acceptance</strong></td>
<td>▪ Promote public acceptance</td>
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<td>▪ Public opinion survey to identify priority segments &amp; concerns</td>
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<td>▪ Awareness projects</td>
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<td>▪ Transparency in project implementation</td>
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<td><strong>International Governance</strong></td>
<td>▪ Sign/ratify relevant treaties &amp; conventions</td>
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<td>▪ Fast-track process and make government priority</td>
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<td><strong>Regulatory context</strong></td>
<td>▪ Put in place detailed regulations</td>
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<td>▪ Align on international best practices</td>
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<td>▪ Top-down mandate to accelerate process</td>
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<td>▪ Engage foreign experts to assess site &amp; construction permit applications</td>
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<td><strong>Nuclear Plant Site Acquisition</strong></td>
<td>▪ Acquire approval for plant sites</td>
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<td>▪ Obtain public support in locality</td>
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<td>▪ Public information programme</td>
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<td>▪ Option for localities to bid to host nuclear plants as in Japan &amp; Republic of Korea</td>
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<td><strong>Construction timeline</strong></td>
<td>▪ Require best-in-class timeline from vendors</td>
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<td>▪ Negotiate with vendors based on timeline</td>
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<td><strong>Project Financing</strong></td>
<td>▪ Obtain low-cost financing</td>
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<td>▪ Combine low-cost &amp; market financing (e.g. sovereign-guaranteed foreign export credits, foreign equity, commercial loans, including Islamic financing)</td>
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The Way Forward

• Nuclear renaissance and nuclear strategic related issues;
• Implementing safety, security and safeguards (3S’s) measures;
• Enhancing capability and capacity in enhancing 3S’s;
• Transparency in nuclear security matters
• Strong regional network and cooperation in promoting nuclear security; and,
• Regional human capital development is vital in ensuring effective implementation of nuclear security initiatives
THANK YOU

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