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KEMENTERIAN SAINS, TEKNOLOGI DAN INOVASI
MINISTRY OF SCIENCE, TECHNOLOGY AND INNOVATION

AELB
ATOMIC ENERGY LICENSING BOARD

ROLE OF AELB AND REGULATORY REQUIREMENTS RELATING TO NPP

JOINT IAEA-KINS BASIC PROFESSIONAL TRAINING COURSE ON NUCLEAR SAFETY FOR REGULATORS

4-15 May 20145 Tunis, Tunisia

Abd Shukor bin Abdul Aziz

Ensuring Safety, Security & Safeguarding Peaceful Nuclear Activities

Presentation Outline

- Introduction to AELB
- Legal Framework
- NPP Project Planning
- Human Resources Development
- Cooperation
- Summary

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Introduction to AELB

ABOUT US

Our philosophy

Atomic Energy Licensing Board (AELB), is a national authority, established by virtue of Atomic Energy Licensing Act 1984 (Act 304) to regulate all activities in the country pertaining to the uses of atomic energy

ABOUT US

Our mission and vision

MISSION

Encouraging innovation culture to ensure Safe and Peaceful Uses of Radiation and Nuclear Technology

VISION

Remaining a relevant regulatory authority with credibility in radiation and nuclear safety, security and safeguarding its peaceful uses for sustainable nation development

ABOUT US

Our profile

Atomic Energy Licensing Act 1984 (Act 304)

&

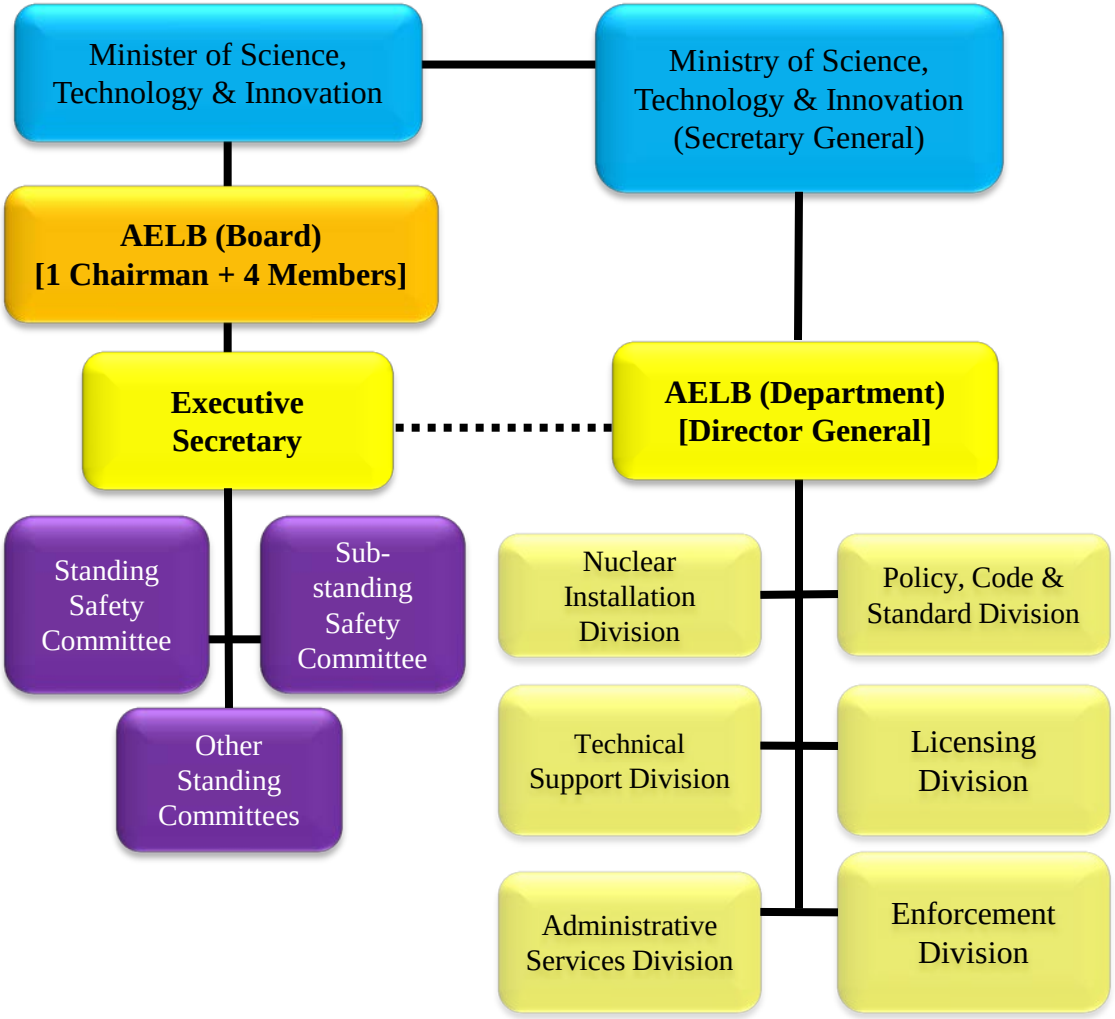
Strategic Trade Act 2010

(Act 708)

- To provide for the regulation and control of atomic energy, its technology and its trade.
- For the establishment of standards on liability for nuclear damage.
- For matters connected therewith or related thereto.

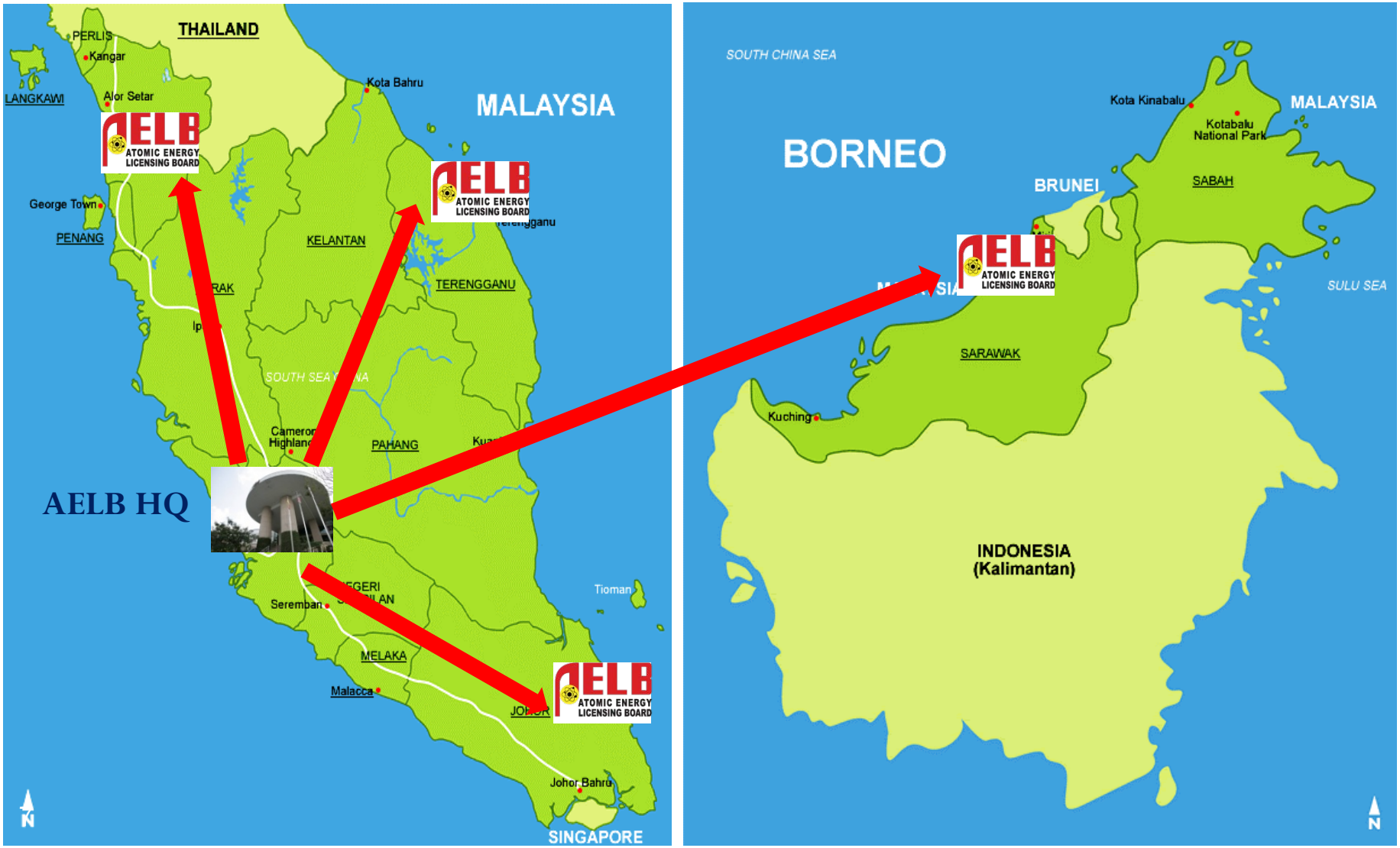
Regulatory Body & ST Relevant Authority

- AELB (Board) was establish under Section 3 of the Act 304.
- Ensuring safety, security and safeguarding peaceful nuclear activities.



ABOUT US

Our location



ABOUT US

What we do?

ST1 LEGAL FRAMEWORK

Enhancement of an effective legal governmental framework for radiation and nuclear safety, security and safeguards including an independent regulatory body

ST2 COOPERATION

Effective cooperation and active participation at national and international level in technical and policy issues on radiation and nuclear safety, security and safeguards.

ST3 SUPERVISION MECHANISM

Enhancement of supervision mechanism towards licensee's compliance to the regulatory requirements and customer satisfaction.

ST4 EMERGENCY RESPONSES

Enhancement of effective arrangements for emergency preparedness and response for nuclear and radiation incident and accidents.

ST5 EXPERTISE DEVELOPMENT

Building capacity and capability of radiation and nuclear regulatory infrastructure and human capital.

ST6 SAFEGUARDS COMPLIANCE

Protection and assurance of the inalienable rights to develop and apply nuclear technology safely and securely for peaceful purposes in Malaysia and to foster public confidence in peaceful uses of radiation and nuclear technology

OUR DYNAMICS

What we are strong

Responsibility towards effective supervision of ATOMIC ENERGY activities to ensure safe, secure and safeguarded and peaceful uses of technology

INSPECTIONS

Various inspection performed on safety, security and safeguard aspects

LICENSING REVIEW

Experiences in review technical documentation and licensing application

COOPERATION

Implementation of existing cooperation at national and international level

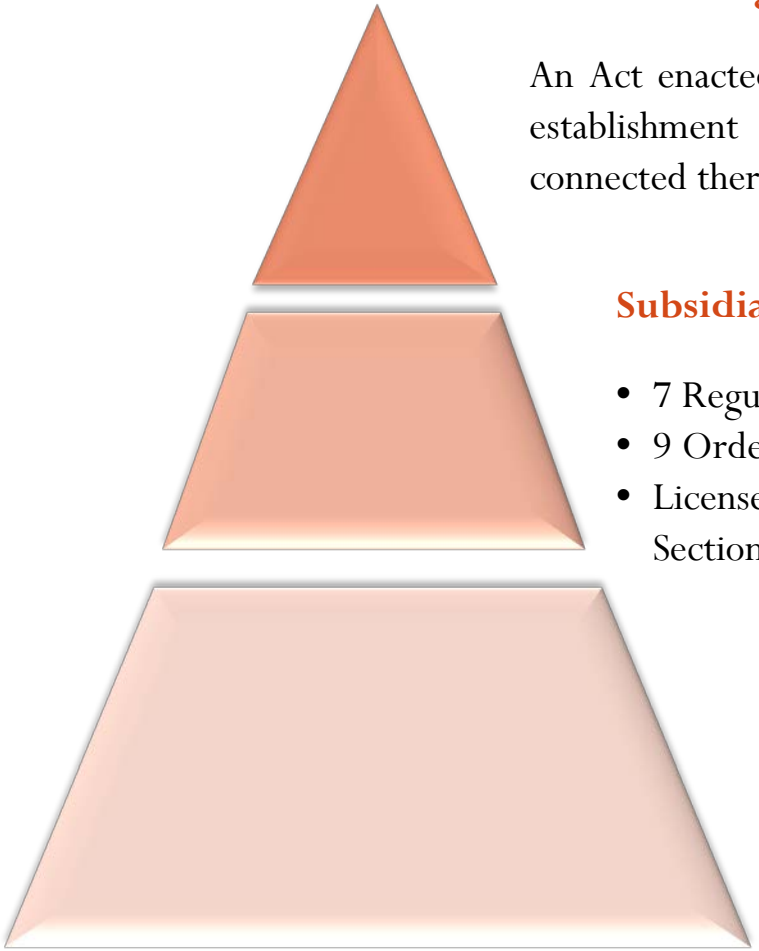
SPECIALIST DEVELOPMENT

Diversity of expertise tailored for supervising atomic energy activities

LEGAL FRAMEWORK

Tailored to state-of-arts nuclear legal and regulatory framework

NATIONAL **LEGAL FRAMEWORK-**



Atomic Energy Licensing Act 1984 (Act 304)

An Act enacted to provide for the regulation and control of atomic energy, for establishment of standards on liability for nuclear damage and for matters connected therewith or related thereto

[1 Feb 1985, P.U. (B)44/1985]

Subsidiary Regulations, Orders and License Conditions

- 7 Regulations (including Corrigendum & Amendments),
- 9 Orders (Exemption and Application orders)
- License Condition is issued supplementary to the License pursuant to Section 17 of Act 304

Regulatory Guidelines, Standards, Code of Conduct, Notices and Other Advisory Material

- Guidelines, Standards and Code of Conduct issued by AELB (including adoption of other international origin)
- Non-legal binding
- Not compulsory for compliance

LICENSE CLASSIFICATION

LICENSING REGULATION 1986

CLASS A
Radioactive Material

CLASS B
Nuclear Material

CLASS C
Irradiating Apparatus

CLASS D
Transportation Activities

CLASS E
Import/Export Activities

CLASS F
Nuclear Installation

CLASS G
Disposal/Storage before Disposal

CLASS H
Other than Class A – Class G

NPP PROJECT PLANNING

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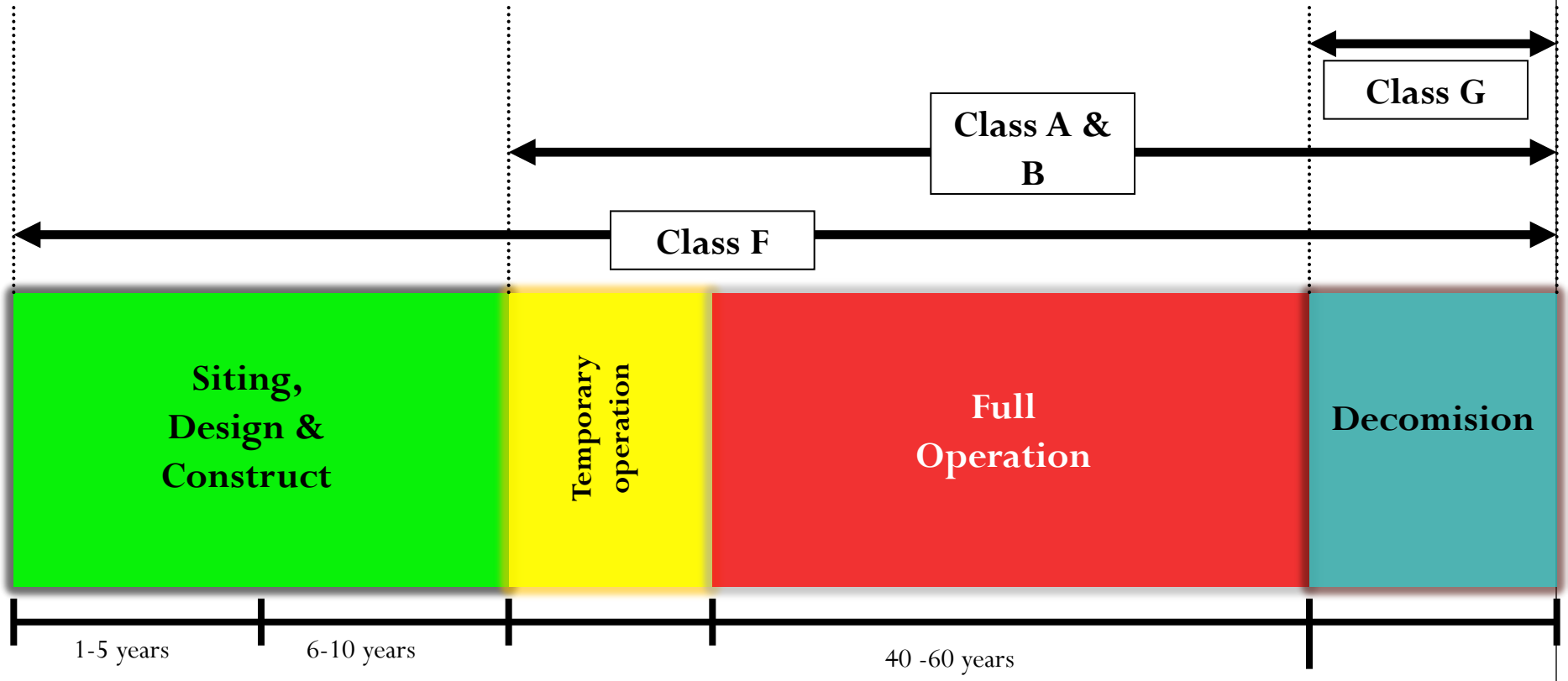
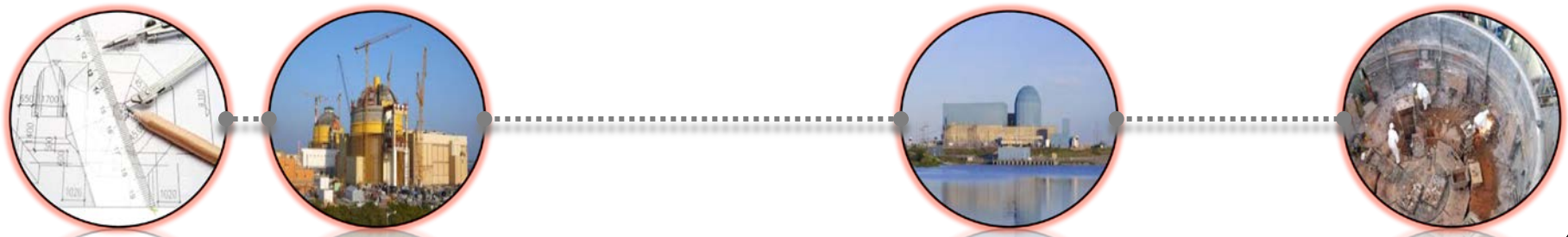
License related to NPP





Regulatory Requirements Relating to NPP

Regulatory Requirements Relating to NPP

GENERAL LAY OUT

Including detailed plan & design of facility

ABNORMAL SITUATION

Statement related to potential accidents and unscheduled releases of wastes and hazardous materials

FORESEEN HAZARDS

Radiation and chemical hazards during normal operation

Regulatory Requirements Relating to NPP

TEMPORARY OPERATION LICENSE

UPDATED CHANGES

Material used or in the design

MEDICAL SURVEILLANCE

Detailed programme

UPDATED INFORMATION

Of requirements for siting and construction

DESCRIPTION

Measures to control radiation exposures

EMERGENCY

Facilities, equipment, and procedures

TRAINING

Detail programme for initial and periodic training for worker

OPERATIONAL MONITORING

- Effluents, emissions
- Frequency & points for sampling
- Equipment & procedures
- Contingency plan for abnormal events

PROPOSED PLAN

- Prevent lost, theft, unauthorized used;
- Prevent accidents and proposed contingency plan

Regulatory Requirements Relating to NPP

SAFETY ANALYSIS REPORT

NEW INFORMATION & CHANGES

Changes to the plan, design and operation introduced following actual operation during the temporary operation stage

UPDATED INFORMATION

As requested for the temporary operation

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HUMAN RESOURCES DEVELOPMENT

Personnel

POSITION	1984 - 2002	2003 - 2006	2007 - PRESENT		
			Current Strength	**Occupied**	**New Request (2012)**
Higher Level Management	0	1	1	1	2
Professional and Management	20	51	51	49	53
Supporting Group 1	29	83	86	78	31
Supporting Group 2	12	28	23	23	7
Total	**61**	**163**	**161**	**151**	**93**

COOPERATION

Strengthening network of cooperation at national and international level

OUR STRATEGIC PARTNERS

National Collaborators in Safety, Security and Safeguards

INTERNATIONAL COOPERATION

Building cooperation network trans-boundary

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www.aelb.gov.my

COOPERATION

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Current Challenges

- Interest in the use of nuclear energy for electricity.
- The changed security situation and the consequential need for safety and security to be more closely integrated.
- Increased use of nuclear technology and the need to ensure adequate safety and security awareness.
- The need to maintain focus on the safety and security of existing nuclear facilities in a rapidly changing world.
- Developing human capital competencies.

SUMMARY

Summary

- Provides independent and efficient regulatory oversight of the nuclear industry and other users of nuclear technology.
  - Assuring Malaysians that the nuclear activities are operating at high levels of nuclear safety consistent with international practices.
- The safety of the public, workers, environment and property, of the nuclear activity will always remain the objective of the national regulatory measures.
- Strives for the continuous improvement of itself, the industry and other users of nuclear technology.
- Development of human resources is essential.

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Thank You!