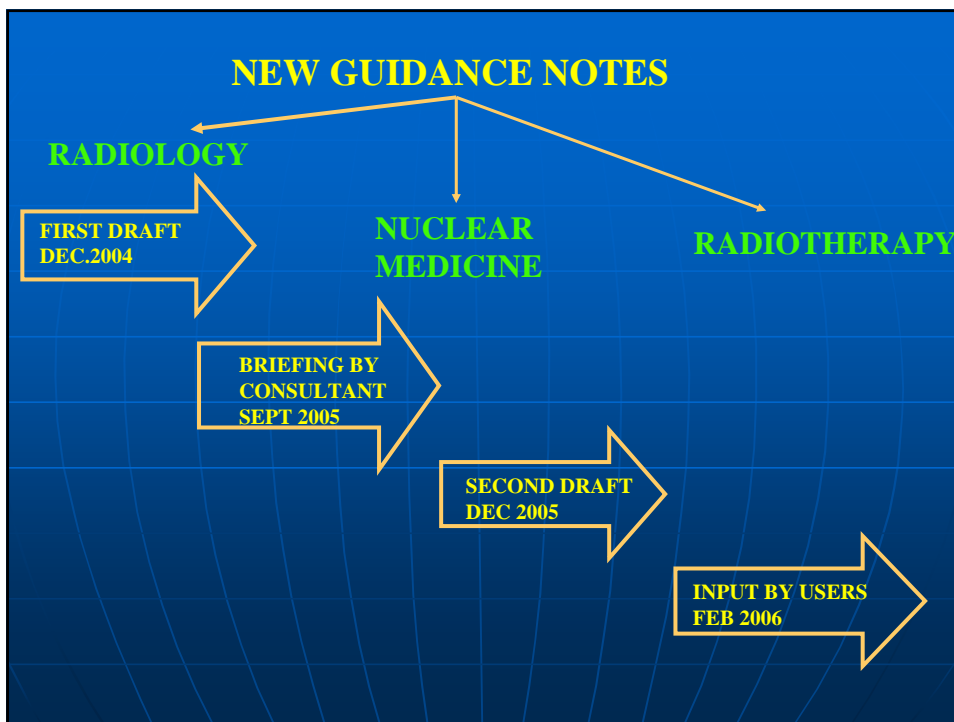
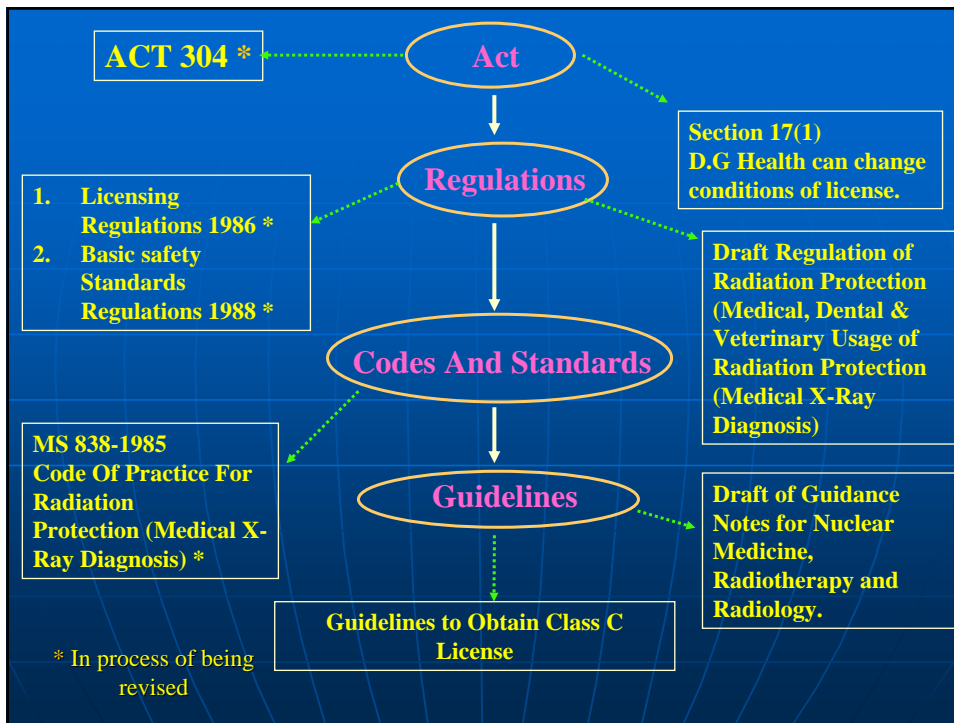


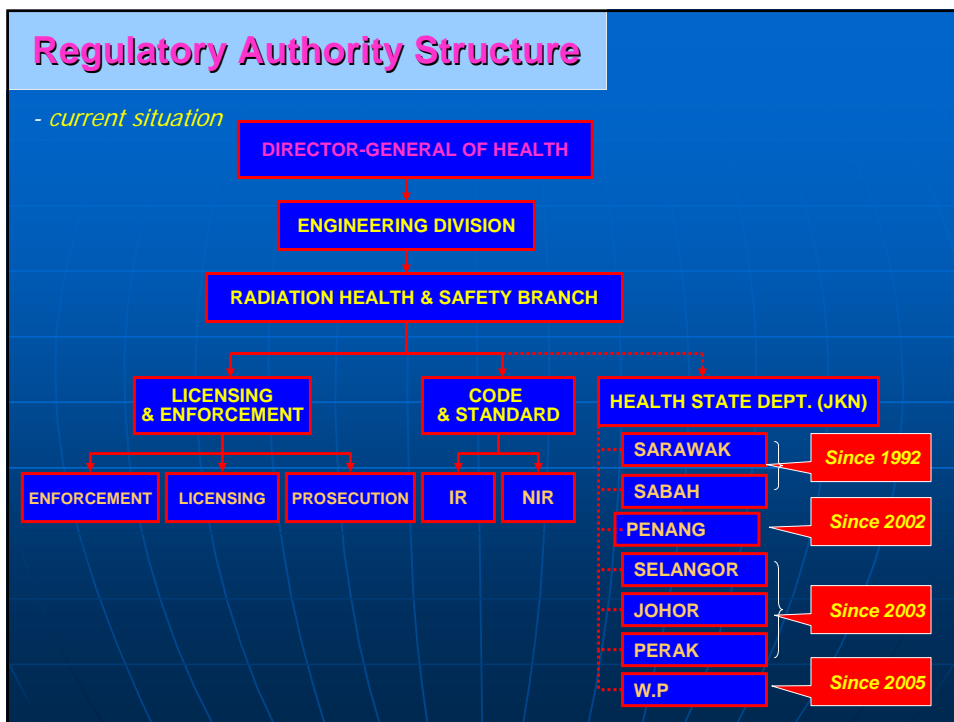
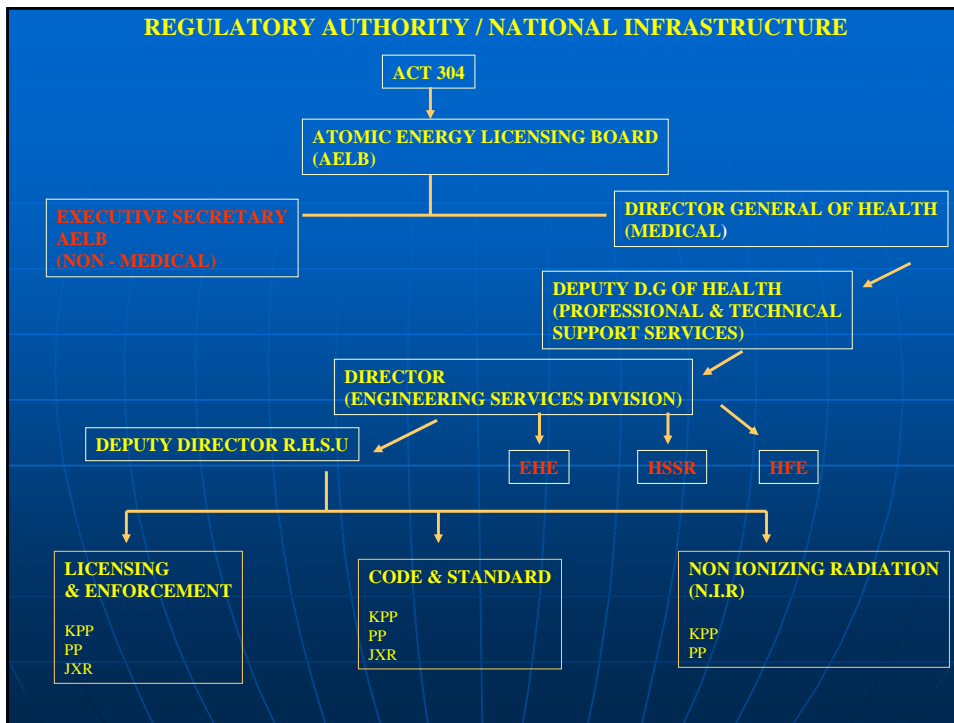
# **RADIATION SAFETY LEGISLATION FOR ISOTOPE HANDLING & MEDICAL IMAGING IN MALAYSIA**

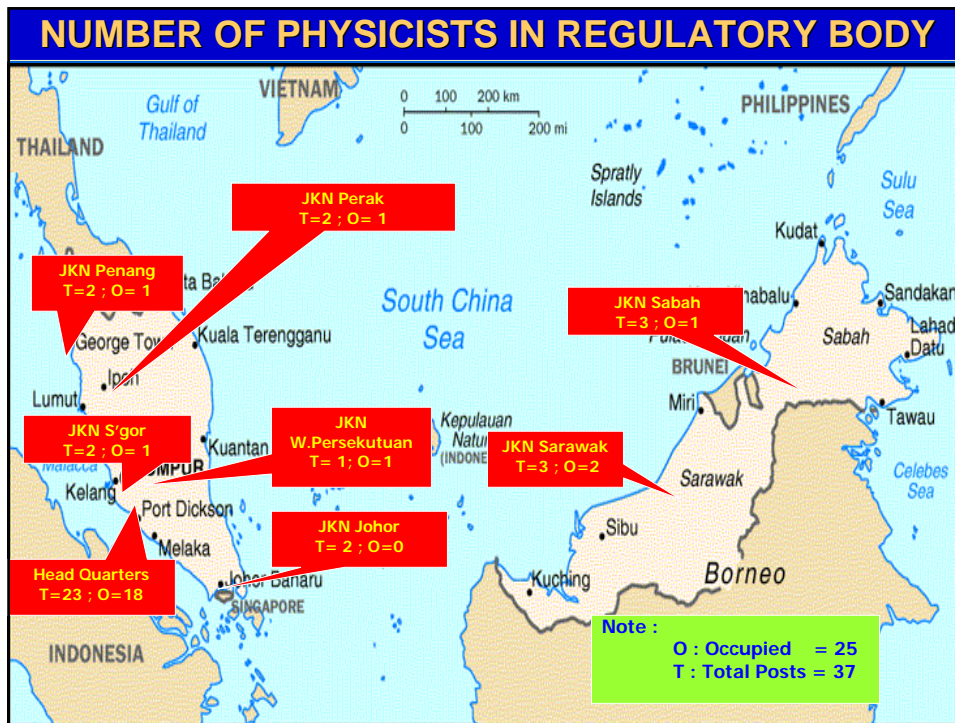
**Peter Lee  
Engineering Services Division  
Ministry of Health Malaysia**

## **Regulations For Use Of Ionizing Radiation**

- **Radioactive Substance Act 1968**
- **Atomic Energy Licensing Act 1984  
(Act 304)**







## Regulator's Role

- Regulatory surveillance of Protection and Safety measures for equipment and techniques for medical uses of radiation.
- Regulations that are practical and easy to follow but that do not compromise on safety and quality

## Licensing Process

- Buy/Store
- Store/Use



## Licensing Criteria (Radiation Safety)

- Structure
- Personnel
- Equipment
- Procedure



## Structure

- Layout Plan
- Detailed Plan  
including lower and upper floors
- Approved consultant physicist's calculations to show radiation comply to Act 304 and its subsidiary regulation (1 mSv/year for public and 20 mSv/year for radiation workers) (to include calculation details and references)
- ALARA

## PERSONNEL

- License holder : Nuclear Medicine Physician / Medical Doctor with APC
- Supervisor : Nuclear Medicine Physician
- Technical Staff : Medical Physicist, Radiopharmacist, Nuclear Medicine Technologist.
- Radiation Protection Officer (RPO) with relevant qualifications, training and experience.
- Personal dose monitoring
- Medical report

## Equipment

- Approved type ( AELB)
- Quality Control (QC) Tests
  - to confirm safety and performance of equipment

### Acceptance/Reference Testing

- Assess whether equipment comply with its specifications and MOH requirements.

### Routine testing

- At least once a year or after major repairs.
- Performed to maintain high quality and standard of the equipment.
- Compare results with reference testing results.

## Procedures / Processes

- Handling of isotopes from:
    1. Production/Receipt
    2. Storage
    3. Preparation
    4. Dispensing
    5. Handling of patient: - before scanning/treatment  
- during scanning/treatment  
- after scanning/treatment
    6. Storage of wastes
    7. Disposal of wastes
- \* Qualified personnel for every step.  
\* Focus on radiation protection.

## QAP

- QA medical exposure
- QA radiopharmaceuticals
- QA occupational exposure



## Other Requirements

- Radiation Protection Committee
- Local rules
- Emergency Procedures
- Security of Sources



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# THANK YOU

FOR YOUR ATTENTION