

Enhancing Regulatory Structure for Nuclear Security

Thailand's experience and challenges

WINS – Nuclear Security Culture

5 - 7 November, 2024

OFFICE OF ATOMS FOR PEACE

Nuclear Materials

Thailand Research Reactor TRR1/m1

- **TRIGA Mark III**
- **Fuel** UZrH 8.5, 19% Enriched
- 5 Control rods; 4 FFRs and 1 transient
- Spent fuel pool

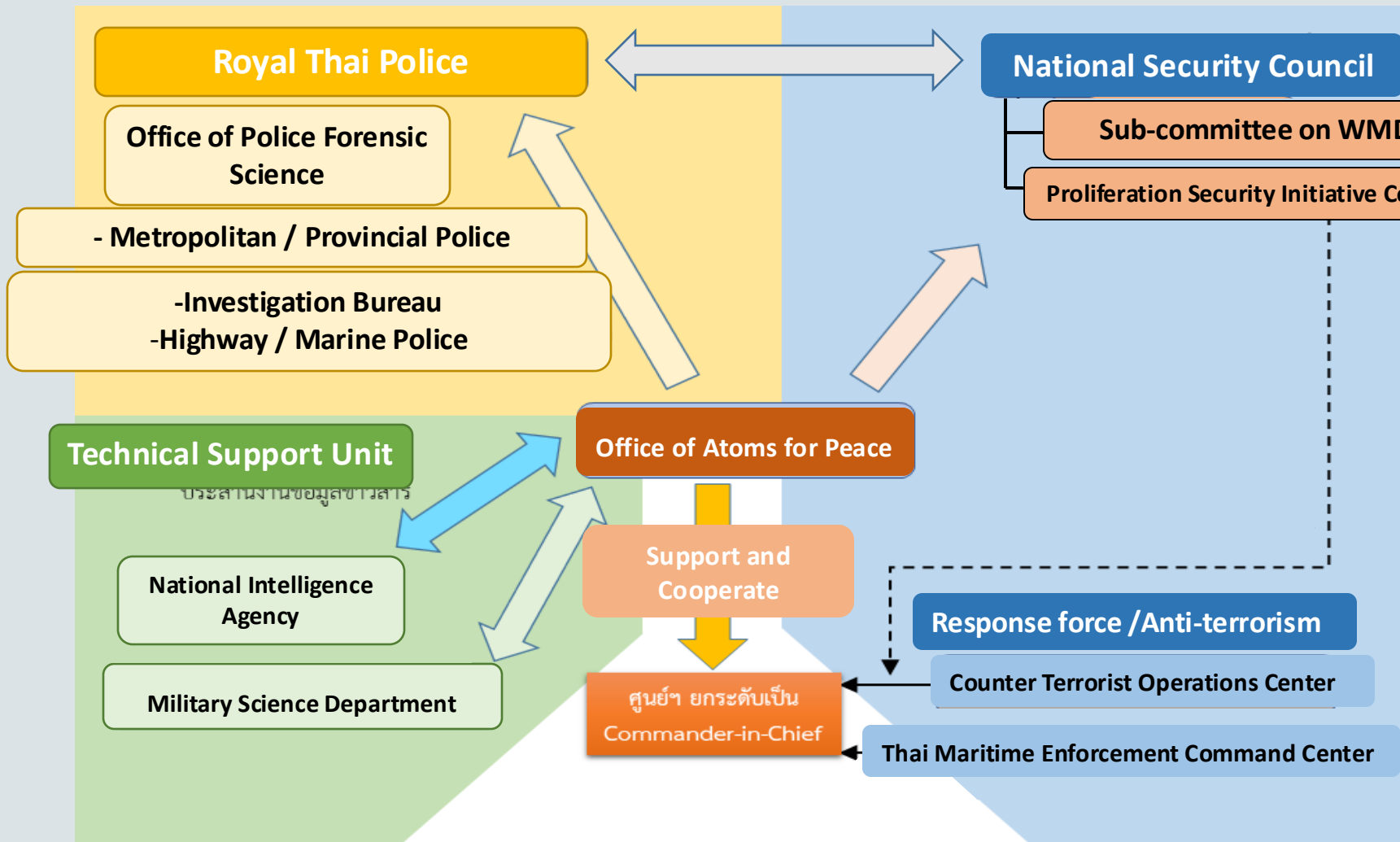
Suranaree Research Reactor

- **Reactor Model:** Miniature Neutron Source Reactor, MNSR
- **Design :** China Institute Atomic Energy (CIAE)
- **Power:** 45 kW(th)
- **Status :** Site-licensed

Prospective : SMR & RR 10-20MW (TINT)



Nuclear Security Authorities



กรอบความมั่นคงปลอดภัยทางนิวเคลียร์แห่งชาติ
National Nuclear Security Regime

สำนักงานปรมาณูเพื่อสันติ
กระทรวงการอุดมศึกษา วิทยาศาสตร์ วิจัยและนวัตกรรม

Instruments for Nuclear Security

Adoption of international legal instruments (CPPNM/ICSANT)

CoC on the Safety and Security of Radioactive Sources

Nuclear Security Summit (2016)

INFCIRC/909 (Transport Security)

National Security Policy and Plan (2019-2022)

National Nuclear Energy Development Plan (2017-2026)

Ministry of Higher Education, Science, Research and Innovation

Nuclear Energy for Peace Act, (Office of Atoms for Peace)

1. Ministerial Regulation on the security of radioactive materials and facilities
2. (Draft) Ministerial Regulation on the safety and security in the transport of radioactive material

Sustaining a National Nuclear Security Regime

- Training activities
 - WINS
 - USDOE
 - INTERPOL
 - ILEA: Response force training
- IAEA missions,
 - INSSP (2014, 2017) and INSServ (2024)
 - Hosted SEA NSSC TM
- National activities
 - National Threat Assessment
 - National meetings (NS regime & Transport)
 - NS Response and EPR Exercises



ป.ร. ร่วมกับ สอช. และ INTERPOL เสริมทักษะ-ความปลอดภัยนิวเคลียร์
พร้อมรับมือภัยคุกคามยุคใหม่

Sustaining Nuclear Security Culture

- FNCA meeting report 2022 (NSC Section)
 - Continuous training, stakeholder communications, and revision of regulations and guides
- National Workshops
 - WINS
 - Nuclear Security Culture WS (Nov 2023)
 - RSSM (ISO2993)
 - IAEA - National Workshop on Conducting Nuclear Security Culture Self-Assessments (Feb 2023)
 - US.DOE (INS) Inside Threat Mitigation WS



International Cooperation

IAEA

Utilized IAEA's tools and assistance (NSS, INSSP, ITDB, IPPAS, etc.)
Engaged with IAEA's programs (CRPs, Regional Workshops, etc.)

ASEANTOM

ASEANTOM-IAEA Regional Project on Nuclear Security (2018-2021)

Malaysia – Thailand joint exercises on borders detection (2015)

The US.DOE/ NNSA

Technical Advisory and National Workshops on Security in the Transport of RM

ASEANTOM-U.S. DOE/NNSA Exercise Development Training Series (EDTS):
2019-2022

WINS, DFATD Canada

Nuclear Security Support Center (NSSC)
WINS: Train the Trainers program

JAEA, MEXT, ISCN

Capacity building support in Security and Safeguards through FNCA framework

ROK(NSSC), KINAC/INSA

MoU on Training on Nuclear Safety and Security

Challenges and ways forward

- Awareness and stakeholders involvement.
 - Strategic HRD, trainings
 - Stakeholders reach-out and involvement
 - Harmonization and periodic review for safety and security regulations
- International Instruments and Cooperations
 - International Instruments promote commitment at the policy level
 - Referring to IAEA Nuclear Security in laws and guides, and public communications



Thank you for your attention