สำนักงานปรมาณูเพื่อสันติ
OFFICE OF ATOMS FOR PEACE

PROGRESS IN HUMAN RESOURCES DEVELOPMENT OF OFFICE OF ATOMS FOR PEACE, THAILAND

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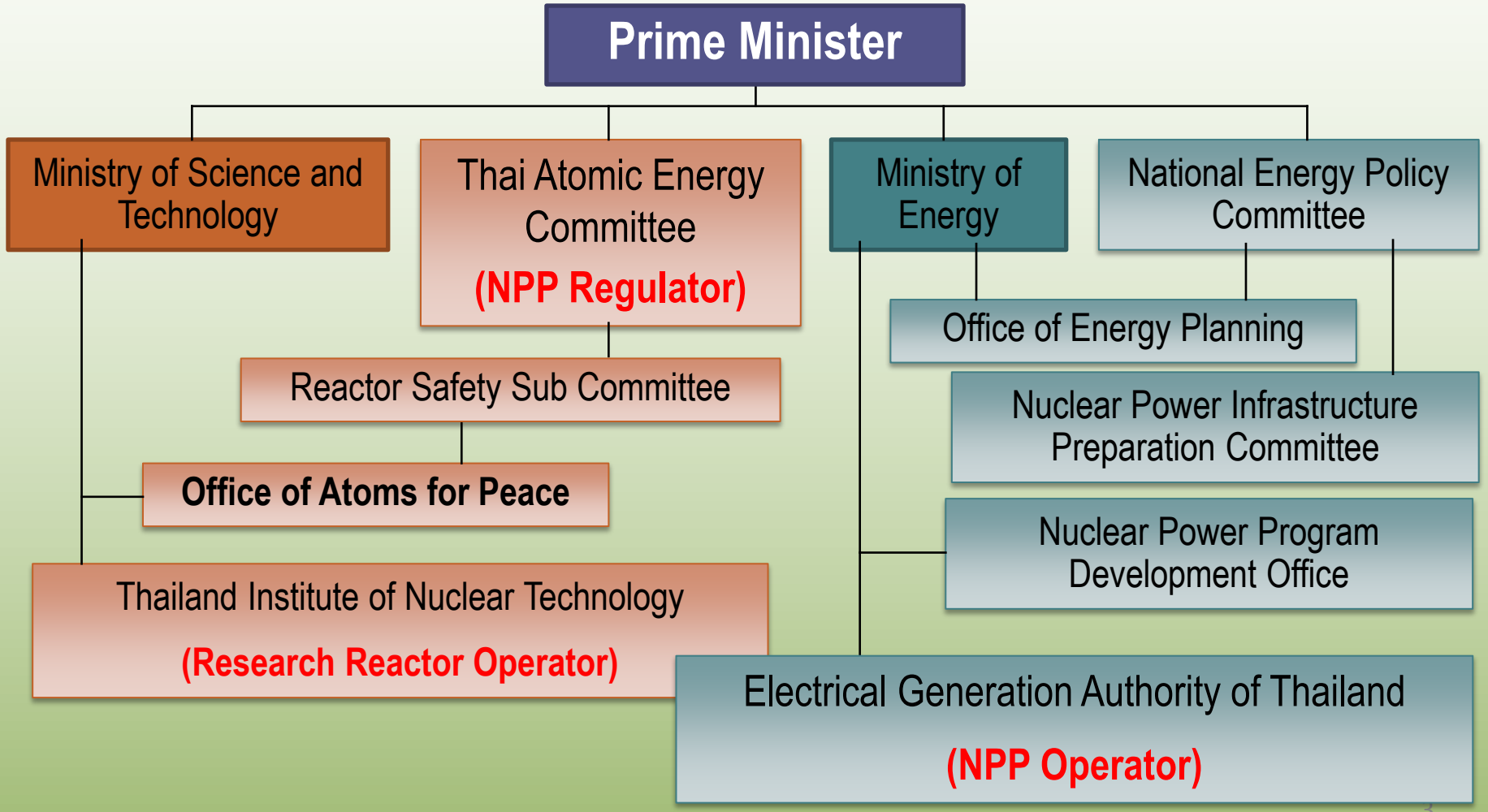
Outline

- Office of Atoms for Peace
- Research Reactor and NPP Project in Thailand
- Development of HRPD and Competence Gap Analysis
- Education and Training for Public
- Conclusion

Office of Atoms for Peace



Research Reactor and NPP Project

RESEARCH REACTOR

- TRR1/M1 (since 1962)
  - I&C upgrading project
  - Aging and decommissioning
- A new research reactor (10-30 MW).
- A small research reactor (30 kW) at Suranaree University. (for medical researches)

NPP PROJECT

- Proposed in PDP 2007
  - 4 units of 1,000 MWe
  - First operation in 2020
- Postponed for 6 years after Fukushima accident
- PDP 2010 Rev. 3
  - 2 units of 1,000 Mwe
  - First operation in 2026

Delay of project gives us an opportunity for preparation and HRD for 2-5 years!

Observation from INIR Mission

- IAEA INIR mission was conducted in 2010
- 3 areas of major gaps identified in phase 1;
  - National Position
    - No clear government statement commitment to 3S
  - Nuclear safety:
    - Law and regulation including international instruments
    - Independent of Regulatory body
    - Prime responsibility rest on operator/appointment of leadership
  - **HRDP of OAP is lack of detailed for Milestone 1**

Development of HRDP of OAP

- First draft HRDP in 2012
- TC project: THA0012
  - Reviewed in 2012
  - Expert mission for SARCoN in 2013
- Competence gap analysis in 2014
- Under process of developing training plan
- HRD is a part of QA program of BNSR (ISO-9001:2008)

Structure of OAP

- Bureau of Radiation Safety Regulation
- Bureau of Nuclear Safety Regulation
- Bureau of Technical Support for Safety Regulation
- Bureau of Atomic Energy Administration

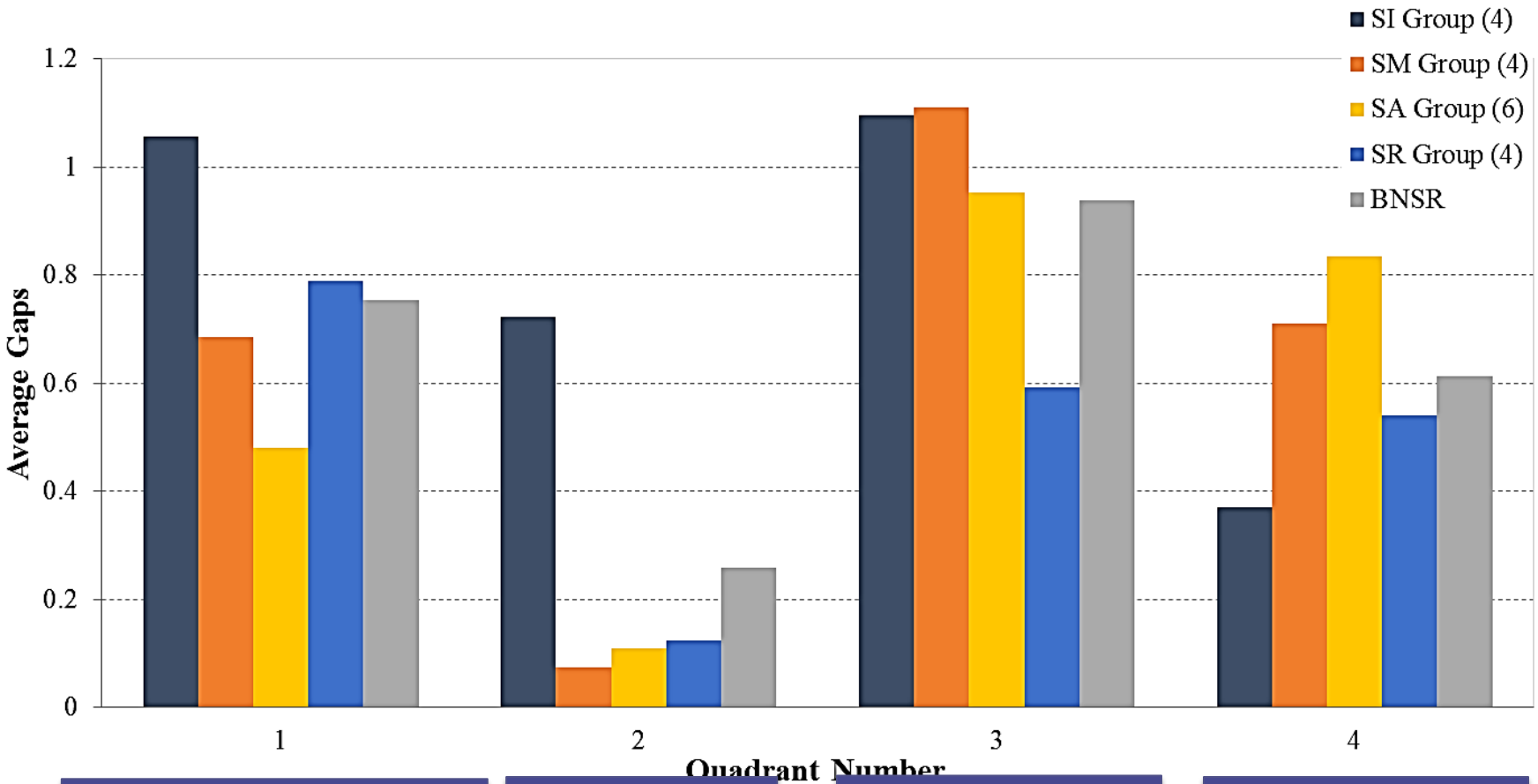
Competence Gap Analysis

- Bureau of Nuclear Safety Regulation (18 staffs)

Safety regulatory development group (SR)	Safety management group (SM)	Safety assessment group (SA)	Safety inspection group (SI)

- Focused on current and near-term activities:
  - I&C modification, aging issues and decommissioning of TRR1-M1
  - New research reactor(s)
- KSA list and required level were select in accordance with individual job description for BNSR functions.
- SARCoN software version 1.403, database version 9, 2013

Results from SARCoN



Legal, regulatory and organization basis

Technical disciplines

Regulatory body practices

Personal and behavioral

Education and Training for Public

Center for human resources development on nuclear and radiation of OAP

- Training on radiation safety for users in medicine and industrial gauges
- Training on safety inspection in linear accelerator
- Training for radiation safety officers

Public relations department of OAP

Curriculum
"Nuclear Technology and Nuclear Energy"

- Developed under cooperation between the Center for human resources development on nuclear and radiation of OAP and the Thammasat University in 2011.
- "Nuclear Technology and Nuclear Energy" is an elective course for secondary school students.
- Objective is to promote the understanding in nuclear technology and nuclear energy.
- Curriculum consists of following topics;
  1. Introduction to nuclear energy
  2. Utilizations of radiation and nuclear energy
  3. Nuclear power plants around the world
  4. Fundamental of nuclear power reactors
  5. Nuclear safety technology and safety culture
- Training program was established for the teachers.

Conclusion

1. Although Thailand's national policy on the NPP is unstable, the OAP needs to develop HRDP for its future works.
2. Due to lacking of experiences in NPP and limitation of manpower, the OAP started with the HRD of the BNSR for near-term responsibilities (research reactor programs).
3. Competence analysis was conducted using SARCoN tool.
4. Future works:
   - Develop training plan, which will focus on regulatory practices.
   - Implementation of the training plan.
   - Conduct the analyses for major bureaus of the OAP.
   - Develop HRPD for NPP (includes recruitment plan).
5. Outreach programs (training and curriculum) has been developed to promote public understanding, to transfer knowledge and experience, and to build and sustain capacity.

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Thank you for your attention.