Background

• Strategic program of development of energy sector of Armenia mandates
  • Long-term operation of ANPP (~2035)
  • Construction of new nuclear unit
• Preference to deployment of medium size nuclear unit
  • small capacity of national electricity grid
  • low integration with regional grids
• As SMRs grow to mature technology
  Government looks for SMRs as viable option for new build
Background

- NRSC – TSO of Armenian Nuclear Regulatory Authority
  - Regulatory review of licensing submittals
    - SAR of nuclear facilities
    - Safety cases
    - Technical Specifications, Procedures and programs
  - Independent safety assessment
    - Neutronics
    - Fuel Safety
    - Thermal-hydraulics
    - Seismic
    - Mechanics
    - PRA
  - Regulatory Research
  - Drafting of regulatory requirements and procedures
  - Radiometric and dosimetry laboratory and in-field measurements
  - Nuclear Security
Capacity Building System

• Knowledge management process
  • Department passports
    • Current capabilities
      • Review guides
      • Validation reports
    • Capabilities to be developed
      • Training
      • Regulatory Research
      • Networks
Capacity Building System

• Internal training system
  • Training Plan
  • SAT
  • Training for different levels
    • In-house developed training programs and materials
    • External adopted training programs and materials
    • Evaluation and continuous improvement

• External training
  • IAEA technical cooperation program
    • Training
    • Workshops/Seminars
    • Fellowships
Capacity Building System

- External training
  - Bilateral cooperation programs
    - USA
      - NRC
      - DOE
      - BNL
      - PNNL
      - ORNL
    - EU
      - ENSTT
      - GRS
      - IRSN
  - Commercial trainings
    - ANSYS
    - RISK Spectrum
    - HELIOS
    - MCNP
    - SCALE
Capacity Building System

- Regulatory research
  - ANRA’s needs driven
    - Licensing of Long term operation of ANPP
    - Preparation of licensing of new NPP
    - Licensing of atomic energy use in medicine, industry, science
  - Study/development of new safety assessment methods/approaches
  - Study/validation of safety analysis tools
  - Development of technical bases for various regulatory positions

- Networking
  - WWER Regulators Forum/Working Groups
  - WENRA
  - Atomic Energy Research Organization/Working Groups
  - INPRO
  - ETSON
  - US State Department FIRST program
  - EuCAS
  - NSSC
  - ITWG
  - User groups
Capacity Building System

- Challenges
  - Internal
    - Substantial loss of specialist due to IT sector aggressive growth
  - External
    - Movement to abroad for new employment opportunities