PROGRAMME ON PROVIDING THE REGULATORY BODY WITH HUMAN RESOURCES: PRESENT AND FUTURE

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Abu-Dhabi, March 14-19 2010
Every country has the right to introduce nuclear power, as well as the responsibility to do it right.”

(M. Elbaradei, General Conference speech 2008 September)
IAEA standards Chronology

• In 2007 IAEA published document «Consideration to Lunch a Nuclear Power Programme», which determined problems necessary to consider for decision making on introduction of the Programme.

• On September 2007 document “Milestones for the Development of the National Infrastructure for Nuclear Power” was developed. It determines 3 stages for the first NPP construction and 19 most important directions (key issues) for analysis and consideration.

• In 2008 document «Evaluation of the status of National Infrastructure Development» was issued. It describes infrastructure assessment methods on the first and second stages.

• In 2009 document «Managing Human Resources in the field of NE», was published. It determines regulation body management basis.

• On September 2009 document «Workforce Planning for Nuclear Power Programme» was issued. This document describes necessary activity for NPP construction assessment methods and process of necessary resources assessment.
IAEA standards

IAEA Nuclear Energy Series No. NG-T-3.3

February 2009

Workforce Planning for New Nuclear Power Programmes
KEY ISSUES

1. National position
2. Nuclear safety
3. Management
4. Funding and financing
5. Legislative framework
6. Safeguards
7. Regulatory framework
8. Radiation protection
9. Electric grid
10. Human resource development
11. Stakeholder involvement
12. Site and supporting facilities
13. Environmental protection
14. Emergency planning
15. Security and physical protection
16. Nuclear fuel cycle
17. Radioactive waste
18. Industrial involvement
19. Procurement
Facilities under SNRCU Regulation
Tasks of Nuclear Energy Complex of Ukraine

- Safe operation of 15 power reactors at 4 NPPs (13 power units with WWER-1000, two of them were put into operation on Khmelnitsky NPP and Rivne NPP in 2005 and 2006, 2 power units with WWER-440) and Spent nuclear fuel storage facility at Zaporizhya NPP;

- Decommissioning of power units №1, 2, 3 at Chornobyl NPP and transformation of “Shelter” object in ecologically safe system;

- Implementation of Concept for Safety Improvement of Operating NPPs;

- Implementation of Comprehensive Program for Lifetime Extension of Operating Nuclear Power Units.
Future Tasks of Nuclear Energy Complex of Ukraine

Energy Strategy of Ukraine until 2030 envisages increase of total NPP capacity:

• Final construction of power units № 3, 4 at Khmelnitsky NPP;
• Construction of centralized dry spent nuclear fuel storage facility for Rivne NPP, Khmelnitsky NPP and South-Ukraine NPP;
• Construction of the second line of spent nuclear fuel storage facility at Zaporizhia NPP;
• Provision of safety during implementation of nuclear fuel production project;
• Creation of the Academy of Science’s scientific research center with new nuclear research reactor;
• Development of SNRCU training system;
• Nuclear legislation introduction on the basis of IAEA standards, EU documents and WENRA reports.
State Regulatory Body for Nuclear and Radiation safety

• Qualified personnel must be recruited, trained and admitted to work at early stage of development Nuclear energy programme.

• Since regulatory body is a state authority (budget organization) its personnel salary is lower than in operating organization, as a rule. This circumstance demands creation of motivation system for enrollment, long work and strengthening qualified specialists in regulatory body (house-building, salary, contracts, special benefits).
Present Staff of the SNRCU

- The total number of the SNRCU’s staff is 292 persons.
- The total number of employees in 8 regional State Inspectorates is 96 persons.
- The total number of employees at the SNRCU headquarter is 154 persons, among them 82 males and 72 females.
- 96,8% of the staff has higher education, among them 70% with higher education in engineering.
- Most of the people have experience in industry, design and science institutions, 15% worked in the area of nuclear energy use.
Present Supervision Staff of SNRCU

• Among the SNRCU headquarters’ staff there are 80 state inspectors dealing with supervision activity.
• The state supervision system is governed by the SNRCU’s Deputy Chairperson -Main State Inspector on Nuclear and Radiation Safety of Ukraine.
• There are 52 state inspectors in the SNRCU headquarter in Kiev and 28 resident inspectors at the State Inspectorates at the NPP Sites.
Sources of regulatory body staffing

Special education and previous work places of personnel should assist professional knowledge and experience use.

Such work places are:
- Academic and brunch institutes
- Educational institutes
- Government and other regulatory authorities
- Enterprises of nuclear energy sphere
- Army (Navy), law-enforcement authorities
SNRCU Personnel Age Composition

- under 27: 0.60%
- 28-40: 32.50%
- 41-54: 16.90%
- 55-59: 40.30%
- above 60: 9.70%
- 40-54: 40.30%

Legend:
- Purple: under 27
- Maroon: 28-40
- Yellow: 41-54
- Blue: 55-59
- Dark Purple: above 60
SNRCU Personnel Gender Composition

47% Male
53% Female
Present SNRCU Knowledge Management Policy

• Apply qualification requirements to personnel, probation period
• Promote personnel with high professional performance
• Enhance efficiency of professional training
• Implement international good practice (IRRS)
• Coaching
• Improve knowledge of Ukrainian and English
• Enhance computer skills
Potential Sources of the personnel for nuclear industry of Ukraine

Institutes and Universities:
– Kiev National “Shevchenko” University;
– National Technical University of Ukraine “Kiev Polytechnic Institute”;
– Odessa State Polytechnic University;
– Sevastopol Institute of Nuclear Power and Industry;
– Kharkov Polytechnic Institute “National Technical University”.
Sources of the personnel for regulatory body

- Young specialists after institutes graduation;
- NPPs, R&D and design institutes:
  - Kiev and Kharkov Design Institutes “Energoproject”;
  - Kharkov Institute on Physics and Technical Science;
  - Kiev Nuclear Research Institute;
- State human resource centers;
- NPP specialists;
- Former military staff (40-45 years, nuclear technical background).
Inspector Personnel Attestation System

• Legal Basis:
  – Law of Ukraine “On Civil Service”;  
  – Law of Ukraine “On Use of Nuclear Energy and Radiation Safety”;  
  – Resolution of the Cabinet of Ministers of Ukraine of 02.04.2001 № 313 “Issues of the SNRCU”;  
  – Internal SNRCU Order on Qualification attestation
Qualification attestation: Aims and tasks

- Estimation of professional and special knowledge (legal, ethic, social)
- Estimation of candidate’s readiness to fulfill functions of state inspector on nuclear and radiation safety

Qualification attestation commission

- Chief State Inspector on Nuclear and Radiation Safety of Ukraine
- Deputy Chairpersons
- Lawyer
- Independent experts
- Tutors for individual training
Assessment of the SNRCU’s activities

• In June 2008 there was performed an assessment of the SNRCU’s activities on compliance with international standards of the IAEA in the frame of the IAEA independent mission “Integrated Regulatory Review Service” (IRRS Mission). As for the human recourses policy, the Mission admitted that the SNRCU has experienced staff for executing regulatory activities.

• Good practice: The SNRCU formal training programme is well developed and based on Systematic Approach to Training principles, and succession planning for key technical staff, workforce aging and knowledge management are taken into account. SNRCU makes effective use of training at international level. Good practice.
The human resources policy is aimed at further improvement of the quality of professional training of the SNRCU’s staff.

The main criteria of the SNRCU’s human resources policy are as follows:

- sound requirements to the candidates;
- tutorship guaranteed and a system of adaptation for newly recruited staff;
- maximal development of the business and creative potential of the staff, sharing experience;
- rotation of the staff;
- systematic training of the staff at all levels;
- achievement of a high level of motivation for each person;
- active participation of the staff in the decision making via questioning;
- ensuring interests of all the staff categories.

The staff selection for the vacant positions is done on the base of examination, the aim of which is an objective assessment of knowledge and abilities of the candidates.
Future

• Taking into account a role of nuclear energy in electricity production in Ukraine (near 46 %) the Government of Ukraine made a decision to organise in Ukraine the own production of nuclear fuel for NPPs.

• In order to enhance the acting system of supervision over the NPP safety in Ukraine, it is planned to develop and introduce the Integral Oversight System on NPP Safety (Reactor oversight process).

• These ambitious tasks require development of the nuclear regulatory system and scientific-technical support of the regulatory body.
Future

• In the SNRCU there was introduced the Quality Management System (QMS) that is an integral part of the managerial activities of the SNRCU. In 2008 the SNRCU received an international certificate on quality.
• One of the priorities of the SNRCU in the area of human resources management is a personal commitment of the SNRCU staff to introduce and enhance the QMS, support and motivation of relevant initiatives.

Processes dealing with issues of human resources are specified in the Methods “Human Resources Management” and in other documents of QMS.
Future

- One of the perspective directions of work of the SNRCU HR Management Department is training a new generation of the civil servants. It is suggested, that the main goals of the human resources strategy are to be as follows:
  - analysis of the staff abilities;
  - possibility for the staff promotion;
  - perspective forecast for needs in staff in the nearest future in accordance with plans on development;
  - upgrading the staff qualification.

Knowledge Portal at present time is under development and will be effective tool for training a new generation of the civil servants.
Thank you for attention.

We are always open to share our knowledge and experience.