



IRRS Mission to Ukraine: results achieved and lessons for future reviews

Olena Mykolaichuk
Chairperson
State Nuclear Regulatory Committee of Ukraine



Key facts about IRRS Mission to Ukraine (1)

The IRRS Mission to Ukraine took place on 8-20 June 2008

The results of the IRRS Mission to Ukraine were presented in Report as of 1 September 2008

The IRRS Mission to Ukraine was held in frames of implementation of Task 4 “Regulatory Issues” of the Joint IAEA-EU-Ukraine Project under

Memorandum of understanding on cooperation in the field of energy between the EU and Ukraine as of 1 December 2005



Key facts about IRRS Mission to Ukraine (2)

IRRS-Ukraine key dates:

- **30-31 October 2007** – Preparatory meeting;
- **6-7 December 2007** – IAEA training on self-assessment process;
- **15 January 2008** - start of self-assessment at the SNRCU;
- **February 2008** – IAEA expert mission to review the status of self-assessment process and assist;
- **1st April 2008** – completion of self-assessment and transmission to the IAEA;
- **1-2 April 2008** – visit of IRRS Team Leader to Ukraine to check the completed self-assessment and discuss organizational issues;
- **8-20 June 2008** – IRRS Mission to Ukraine.



Key facts about IRRS Mission to Ukraine (3)

- The self-assessment was carried out within 8 core modules and 6 additional modules;
- The total number of questions answered – 1073;
- The self-assessment was completed in the shortest possible period - 2,5 months.



Key facts about SNRCU (1)

- SNRCU was established according to the Decree of the President of Ukraine of 5 December 2000 №1303;
- The SNRCU Statute was approved by the Resolution of the Cabinet of Ministers of Ukraine of 27 December 2006 №1830;
- SNRCU directly reports to the Cabinet of Ministers of Ukraine;
- SNRCU is independent from the State agencies, establishments and officials whose activity is associated with the use of nuclear energy.



Key facts about SNRCU (2)

The main SNRCU functions prescribed in the Law of Ukraine «On the Use of Nuclear Energy and Radiation Safety» are:

- Rule-making;
- Licensing and safety assessment;
- Supervision and enforcement.

SNRCU consists of:

- Head quarters;
- 5 on-site inspection offices at all NPPs;
- 8 regional inspections.



Key facts about SNRCU (3)





Key facts about SNRCU (4)

SNRCU staffing:

- 292 staff positions in total, including 189 state inspectors;
- 161 positions in the head quarters;
- 35 positions in NPP on-site inspections,
- 96 positions in regional inspections.



Previous IAEA regulatory review Missions to Ukraine (1)

IRRT Mission 8-20 November 1998

**The review was held in Nuclear Regulatory Administration (NRA)
of the Ministry for Environmental Protection and Nuclear
Safety (MEPNS)**

The SCOPE:

Authority, responsibilities and functions of the regulatory body,
legislative and governmental responsibilities, organization of the
regulatory body, review and assessment, inspection and enforcement,
development of regulations and guides, radioactive waste management
and decommissioning, radiation protection.



Previous IAEA regulatory review Missions to Ukraine (2)

The results of IRRT Mission were presented in Report
as of January 1999

In total IAEA experts made
47 recommendations, 21 suggestions and
underlined 13 good practices

One of the recommendations was
to establish **independent**
Regulatory Authority



Previous IAEA regulatory review Missions to Ukraine (3)

IRRT – follow-up
3- 10 December 2001

**The review was held in the State Nuclear Regulatory
Committee of Ukraine
(independent since December 2000)**

The SCOPE:

Legal and governmental authorities; responsibilities and functions;
organizational structure; licensing; review and assessment; inspection
and supervision; development of regulatory requirements and guides;
radwaste management and decommissioning; radiation protection.



Previous IAEA regulatory review Missions to Ukraine (4)

The results of IRRT follow-up were presented in Report as of
7 March 2002

**In total IAEA experts made
16 recommendations, 21 suggestions and
underlined 10 good practices**

**The Action Plan of measures on implementation of IRRT Mission
recommendations and suggestions was approved by
the Decree of the SNRCU №100 of 23 September 2002.**

- 16 recommendations, 10 – completed, 5 – under implementation, 1- not actual.
- 21 suggestions, 13 – implemented, 8 – under implementation.



IRRS mission to Ukraine: scope (1)

The scope of the mission

to review the regulatory oversight of safety of nuclear power plants; safety and security of radioactive sources; radiation safety in industrial and medical practices; safety in the transport of radioactive material; safety of radioactive waste management (including spent fuel) and decommissioning; and emergency planning and preparedness.

Particular issues related to Chornobyl NPP were not included in the scope of the IRRS mission.



IRRS mission to Ukraine: scope (2)

Regulatory technical and policy issues were addressed.

The policy issues discussed were:

- application of risk informed decision making in the regulatory process;
- the regulatory process for authorizing new build NPPs.

The IRRS team reviewed the SNRCU in all relevant areas:

- legislative and governmental responsibilities;
- responsibilities and functions of the regulatory body;
 - organization of the regulatory body;
- activities of the regulatory body, including the authorization process,
 - review and assessment, inspection and enforcement;
 - the development of regulations and guides
 - and special regulatory infrastructures.



IRRS Mission to Ukraine: Team

The IRRS Review Team consisted
of 13 senior regulatory experts from 9 Member States,
1 representative from the EC Joint Research Centre,
1 observer from Japan
and 5 IAEA staff members

IRRS- Ukraine Team Leader

Ms. Dana Drabova – Czech Republic

IRRS-Ukraine Deputy Team Leader

Mr. Mark Satorius – US NRC

IAEA IRRS Team Coordinator

Ms. Adriana Nicic



IRRS Mission to Ukraine: meetings and site visits (1)

The IRRS mission comprised interviews and discussions
with key personnel at the SNRCU
together with observation of regulatory activities.

IRRS experts observed Emergency Drill at the Research Reactor

IRRS experts met with the representatives of the SNRCU Public Board
and the representatives of the SNRCU Commission on Rule-Making

IRRS Team Leader and IAEA Team Coordinator met with Head of the
Parliamentary Committee for Energy Policy of Ukraine.



IRRS Mission to Ukraine: meetings and site visits (2)

External visits:

- Ministry for Fuel and Energy of Ukraine;
- Ministry of Environment of Ukraine;
- Ministry of Health of Ukraine;
- Ministry of Emergencies and Chornobyl Issues of Ukraine;
- National Nuclear Energy Generating Company NAEK «Energoatom»;
- State Scientific and Technical Center for Nuclear and Radiation Safety (SSTC NRS);
- Marzeev Institute;
- South-Ukraine NPP;
- Kharkov Facility of UkrDO “Radon”;
- Kharkov plant of handling machinery, Ltd. ;
- State Enterprise «Grigoriev Institute of Medical radiology of National Academy of Sciences of Ukraine» in Kharkov.



IRRS Mission to Ukraine: key findings (1)

- SNRCU is effectively regulating nuclear safety and areas of radiation safety within its responsibility.
- Comprehensive legal infrastructure that addresses international requirements and includes all the relevant international conventions is in force.
- The legislation clearly specifies that regulatory requirements shall be developed with strict consideration of the recommendations of competent international organizations.
- SNRCU is de facto an effectively independent regulatory body, however, to strengthen its de jure independence its status should be established in law.



IRRS Mission to Ukraine: key findings (2)

- SNRCU actions to establish advisory bodies with involvement of internationally recognized safety experts from abroad is a demonstrated commitment to safety improvement.
- Effective actions were taken and commitment made towards achieving transparency and communication with the public and Parliament, including establishment of a Public Council to ensure transparency of SNRCU's decision making, as well as providing the public with direct access to SNRCU senior management through telephone hotlines.
- The Information and Emergency Centre of SNRCU operates highly effectively as the national crisis centre in the area of preparedness and response to nuclear and radiological emergencies.



IRRS Mission to Ukraine: key findings (3)

The following was identified as a high priority for implementation:

- The Government of Ukraine should define and guarantee the statute of the SNRCU in law.
- The Government should approve the “National Programme on Radioactive Waste Management” and the funding mechanism necessary to guarantee its implementation.
- The Government should consider enacting legislation that assigns responsibility to SNRCU for the authorization of the siting and design of new reactor units.
- The existing trend of continuous increase of SNRCU budget and expert salaries should be preserved in order to retain staff and be able to achieve the level of financing of the SNRCU in accordance with the best international practice and to be able to cover on its own involvement in international activities, training, review and assessment, public communications, etc.



IRRS Mission to Ukraine: key findings (4)

- Specialized governmental/State agency should be given executive responsibility to deal with the long-term management of radioactive waste.
- The safety assessment process should be fully transparent and effectively regulated by SNRCU, including the financial aspects.
- The Government should at the earliest opportunity take steps to substitute sanctions against individuals with sanctions against legal entities.
- SNRCU should continue its efforts to address human and organizational resources for effective regulatory oversight taking into account the need to cover the broad range of activities and future retirements of senior staff, as it still faces staffing challenges, especially high staff turnover.



IRRS Mission to Ukraine: key findings (5)

- SNRCU and the Ministry of Health should agree a memorandum of understanding clarifying the responsibilities of each of the authorities as well as the mechanisms for implementation of effective cooperation in regulating and controlling radiation protection, waste safety and other common activities that arise.
- SNRCU should have the authority to approve the operator's organizational changes.

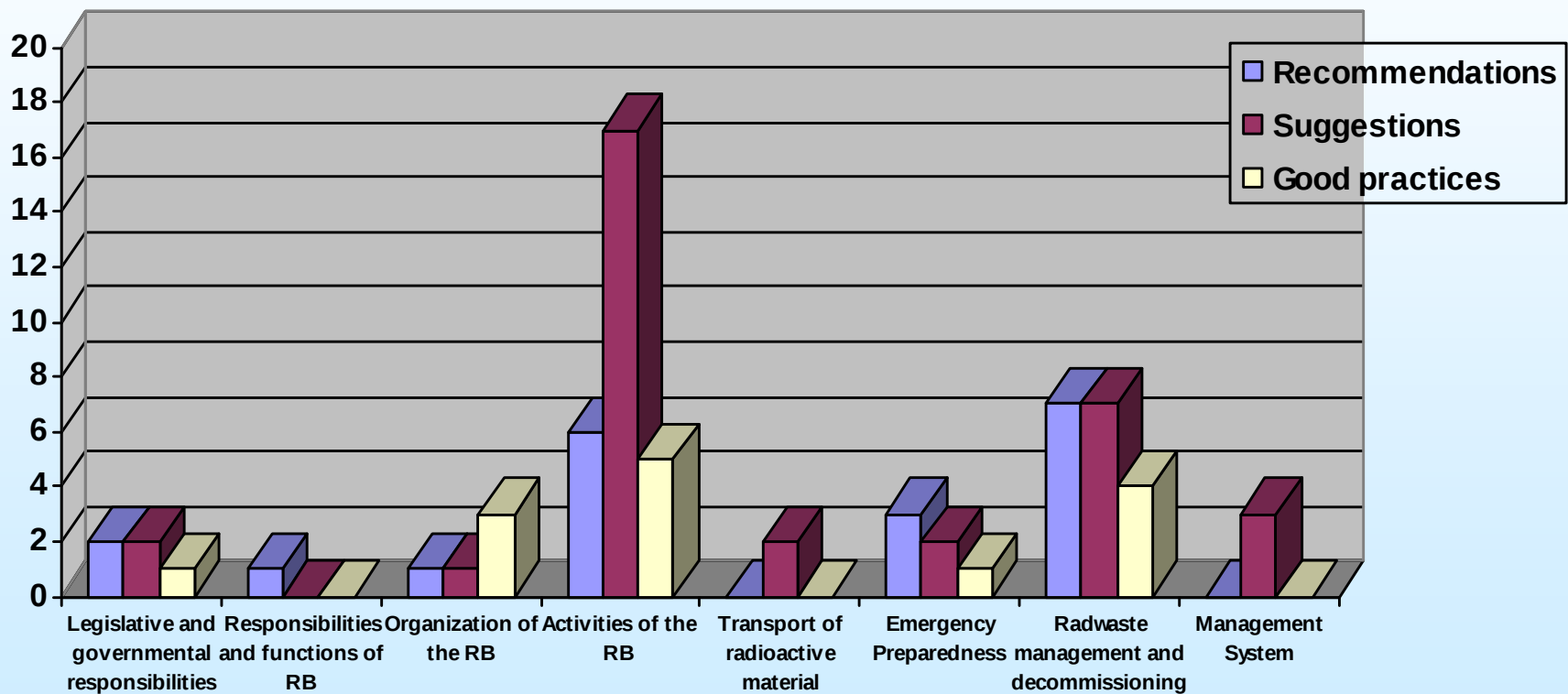


IRRS Mission to Ukraine: key findings (6)

**In total IAEA experts made
20 recommendations, 34 suggestions
and underlined 14 good practices**



IRRS Mission to Ukraine: key findings (7)





IRRS Mission to Ukraine: follow-up actions (1)

**Based on the results of IRRS Mission
the Action Plan was prepared by SNRCU and approved
by the Resolution of the Cabinet of Ministers of
Ukraine No.1307-r of 08 October 2008**

- Total number of actions planned – 17;
- Period of implementation – December 2008 – 2011;



IRRS Mission to Ukraine: follow-up actions (2)

The key actions are directed at:

- Amending the existing legislation and regulations in force in the area of nuclear and radiation safety and development of new;
- Analysis of existing sanitary and hygienic norms and rules to bring in correspondence with IAEA standards;
- Development and approval of Strategy on Radwaste Management;
- Introduction of Unified State System of account and control of individual exposure doses;
- Development and introduction of regulatory information system “Knowledge Portal”, etc;



IRRS Mission to Ukraine: follow-up actions (3)

**According to paragraph 4.8.4
of the IRRS Guidelines
the SNRCU officially requested the IAEA
for IRRS follow-up in
3rd quarter of 2010.**



IRRS Mission to Ukraine: lessons for future reviews (1)

Successful IRRS means:

- Openness and transparency of the Regulatory Body;
- Good communication with the IAEA on all IRRS related issues;
- Strict timing of preparatory process;
- Vast efforts for organization and logistics;
- Comprehensive self-assessment;
- Involvement of senior management of the Regulatory Body in review process;
- Willingness to communicate.



IRRS Mission to Ukraine: lessons for future reviews (2)

IRRS is a key tool to:

- identify areas for improvement of the Regulatory Body through review process and self-assessment;
 - share and learn for all involved;
- contribute towards harmonisation of international approaches and practices;
- enhance the Regulatory Body performances and nuclear safety and radiation protection worldwide.



SNRCU advice to reviewed ones

- Thorough self-assessment is the half of success;
- Do not be afraid of big number of experts: the bigger the better;
- Pay attention to preparation of other stakeholders to meetings with IRRS Team.