"The Integrated Regulatory Review Service"

IRRS Highlights

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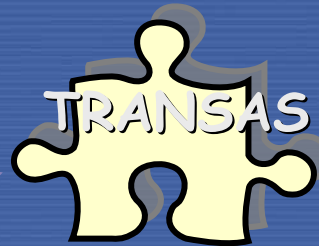- **Regulatory Sharing Knowledge Network**

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Background

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IRRS Background

INTEGRATED REGULATORY REVIEW SERVICE

Assessment of the Regulatory Effectiveness

Radiation Safety and Security Infrastructure Appraisal

RASSIA

IRRT

IRRS

EPREV

International Regulatory Review Team

TRANSAS

Transport Safety Appraisal Service

Emergency Preparedness REView

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Integrated Regulatory Review Service

What It Is?

- International Peer Review against international standards
- An exchange of professional regulatory experiences
- A sharing of lessons learned and good practices

What It Is Not?

- **Individual Judgments or Opinions**
- **Regulatory Inspections**
- **Licensees Review**

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Vision and Objectives

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<u>Vision</u>

"Effective and Sustainable Regulatory Bodies that apply IAEA safety standards, share regulatory experiences, knowledge and lessons learned among Regulators"

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Objectives:

- **Promote sharing of experience and exchange of lessons learnt among senior regulators;**

- **Contribute to the harmonization of regulatory approaches among Member States;**

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Objectives:

- Provide requesting Member States with an **objective review** (Technical and Policy issues) of their nuclear and radiation regulatory practices with respect to **international safety standards**;

- Provide the host country with **recommendations and suggestions** for improvements;

- Provide other Member States with **good practices** identified in the course of the review;

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Objectives:

- **Provide reviewers from States and the IAEA staff with opportunities of mutual learning process; and**

- **Provide real opportunities to IAEA staff to get direct feedback from the application of international standards.**

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Basis for Regulatory

Technical and Policy Issues

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IAEA SAFETY STANDARDS

- **International Reference Point for High Levels of Safety.**
- **High Technical Quality**
- **Global Consensus among Experts and Member States**
- **Reference Basis for Safety Requirements**

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Basis for technical regulatory issues

GS-R-1:   *LEGAL AND GOVERNMENTAL INFRASTRUCTURE FOR   NUCLEAR , RADIATION, RADIOACTIVE WASTE AND TRANSPORT SAFETY*

1. Legislative and governmental responsibilities
2. Responsibilities and functions of the regulatory body
3. Organization of the regulatory body
4. Activities of the regulatory body
5. Special thematic infrastructure

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Basis for technical regulatory issues (cont'd)

- **GS-R-1:** Legal & Governmental Infrastructure for Nuclear, Radiation, Radioactive Waste and Transport Safety
- **GS-R-3:** Management System for Facilities and Activities
- **Safety Series 115:** International Basic Safety Standards
- **NS-R-1:** Safety Requirements of Nuclear Power Plants: Design
- **NS-R-2:** Safety Requirements of Nuclear Power Plants: Operation
- **NS-R-4:** Safety Requirements of Research Reactors
- **Draft :** Safety Requirements of and Fuel Cycle Facilities

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Basis for technical regulatory issues (cont'd)

TS-R-1: Regulations for the Safe Transport of Radioactive Material TS-R-1

WS-R-1: Near Surface Disposal of Radioactive Waste Safety Requirements;

WS-R-2: Predisposal Management of Radioactive Waste, including Decommissioning;

WS-R-3: Remediation of Areas Contaminated by Past Activities and Accidents;

WS-R-4: Geological Disposal of Radioactive Waste;

GS-R-2: Preparedness and Response for Nuclear and Radiological Emergencies Requirements

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Basis for technical regulatory issues (cont'd)

- **The Code of Conduct for Radiation Safety and the Security of Radioactive Sources 2004 and Guidance on the Import and Export of Radioactive Sources 2005; and**

- **The Code of Conduct on the Safety of Research Reactors 2005.**

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IRRS Matrix

	Nuclear Power Plants	Research Reactors	Fuel Cycle Facilities	Industrial Radiography	Industrial Irradiators	Gauges and Well Logging	Radioisotope Production	Accelerators	Diagnostic Radiology	Radiation Therapy	Nuclear Medicine	Research and Educational Use	Radioactive Waste Management	Disposal Facilities	Transport	Mining and Milling
Legislative and Governmental Responsibilities (Module I)																
Responsibilities and Functions of the Regulatory Body (Module II)																
Organization of the Regulatory Body (Module III)																
Authorization (Module IV)																
Review and Assessment (Module V)																
Inspection and Enforcement (Module VI)																
Development of Regulations and Guides (Module VII)																
Management System of Regulatory Body (Module VIII)																
Specific Question Sets																
Patient Protection																
Occupational Radiation Exposure																
Public Exposure (inc Waste Management)																
Transport																
Emergency Preparedness																
Recovering Control of Sources																
Education and Training																
Security (of sources)																
Safety of Nuclear Power Plants																
Safety of Fuel Cycle Facilities																
Safety of Research Reactors																

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Policy Issues:

Reference material:

- Safety Fundamentals;
- Results from the Convention on Nuclear Safety;
- Results from the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management;
- IAEA regulatory and safety conferences and other relevant international meetings and forum;
- IAEA reports on safety issues and trends;
- Results from IAEA review missions;

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Regulatory Technical and Policy Issues

- Enhancing the Regulatory Effectiveness and Competence;

- Transparency and Openness (Stakeholders inv.);

- Independence ("de jure" & "de facto");

- Leadership and Management of Safety;

- Regulatory aspects on Operating Experience Feedback;

- Long Term Operation and Ageing of Nuclear Facilities;

Integrated Regulatory Review Service

Regulatory Technical and Policy Issues

- Licensing New Built – New Technologies;

- Regulatory Approaches balance between Deterministic and Probabilistic. Performance based versus Prescriptive;

- International Participation and Legal and non- binding international instruments;

- Harmonization between Nuclear and Radiation Regulations; and
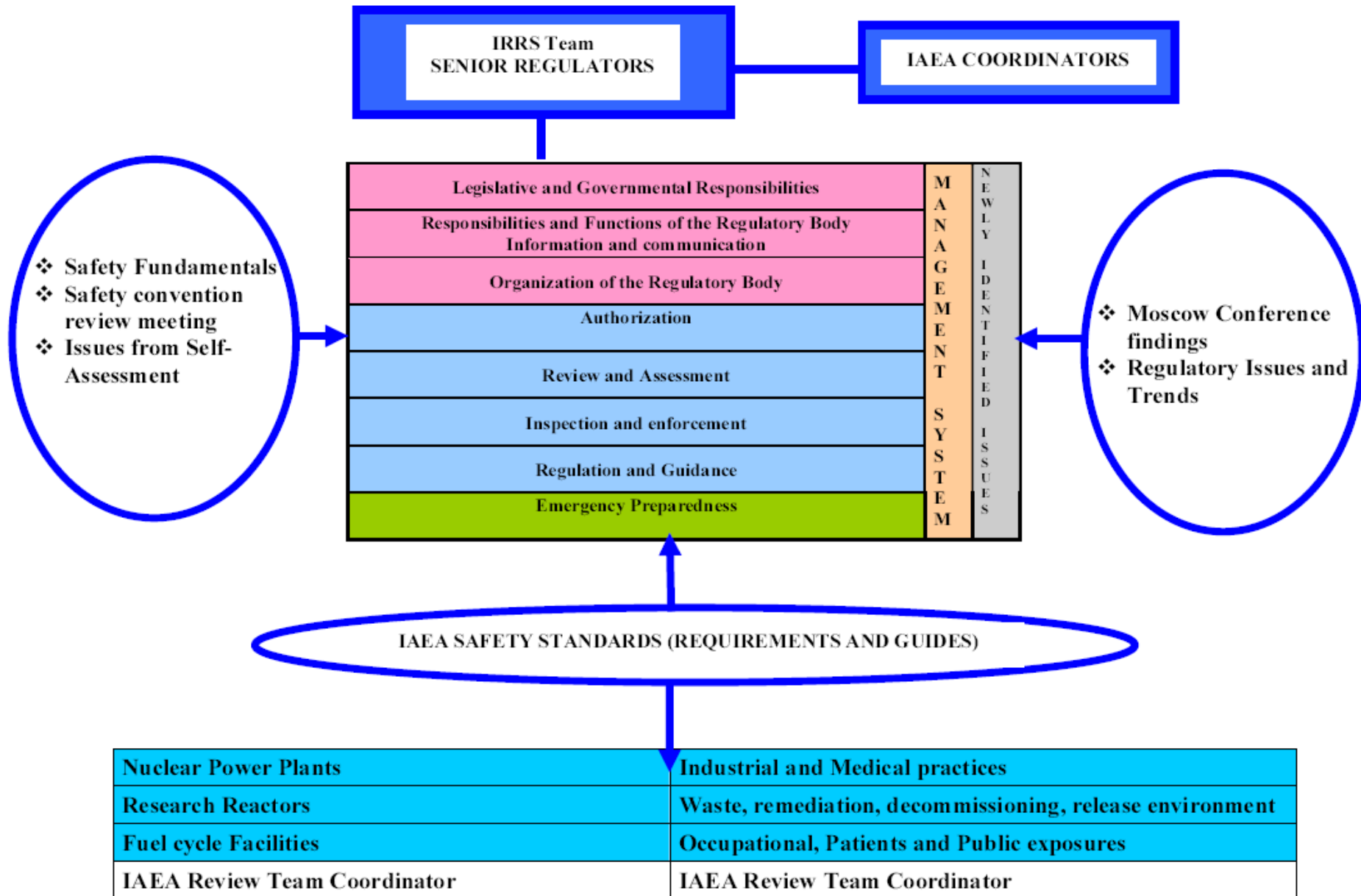
- Human Resources and Knowledge Management

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IRRS Guidelines

- Provide guidance: prep, execution, reporting, follow-ups
- Provide a consistent and systematic methodology for:
  - Conducting the review of regulatory technical and policy issues;
  - Consistent evaluation of the status of development of the national regulatory infrastructure;
  - The identification of areas for improvements to meet international safety standards and best practices and to face regulatory challenges;
  - Making recommendations and suggestions; and
  - Establishment or improvements on an action plan

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IRRS Structure & Process

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STRUCTURE OF THE IRRS

IRRS - Roles and responsibilities

- IRRS Team Leader.
- IRRS Deputy Team Leader.
- IAEA Team Coordinator.
- IAEA Deputy Team Coordinator.
- IAEA Review Team Coordinator(s).
- Expert Reviewer - team member.
- Liaison officer in regulatory body.
- Counterparts in regulatory body.

Conduct of IRRS

Three methods used:

- **Review of Written Material**
  - **prior to start of IRRS mission; and**
  - **throughout IRRS mission**

- **Interviews with counterparts and other personnel**

- **Direct observations of organization, practices & activities (regulatory body, government departments & nuclear facilities and activities)**

Evaluation and Reporting

IRRS team members / experts will :

- Collect information **in topical areas and make detailed, daily notes of each visit/ interview/ meeting or review conducted;**

- Record **all relevant information (confidentiality is maintained);**

- Summarize **regulatory technical and policy observations;**

- **Analyze and evaluate observations to** identify **strengths and areas for improvement; and**

- Discuss **observations, insights and evaluation in IRRS team meetings (daily).**

Evaluation and Reporting (Cont'd)

- **Observations, analysis and evaluation may result in:**

    » Conclusions (Findings)

    » Recommendations

    » Suggestions and/or

    » Good Practices

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IRRS SCHEDULE

- Overall Mission schedule

- Opening IRRS team briefing

- IRRS Entrance Meeting

- Daily Programme

- Team Co-ordination Meetings

- IRRS Exit Meeting

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IRRS Mission – Daily Team Meetings

- Summarize day's key observations by each member;
- Share insights and observations regarding potential implications in other review areas;
- Analyze and evaluate observations and identify concerns or positive features; these will form the basis for recommendations, suggestions and good practices;
- Inform the team of major findings in review areas;

IRRS Mission – Daily Team Meetings (cont'd)

- Identify areas for which further information is needed;

- Exchange views, ideas and results of evaluation in each area;

- Ensure consistency and consensus of conclusions recommendations, suggestions and good practices;

- Consolidate team views and formulate the way in which their findings should be reported; and

- Determine the status of each team member's written input to draft IRRS report;

IRRS Mission - Exit Meeting

Attended by

- Senior personnel of regulatory body;
- Senior representative of the IAEA;
- Representatives from other organizations involved in IRRS;
- Counterparts ;
- IRRS team;
- Team leader summarizes the main results of IRRS mission; and

- Draft report is provided to host country

Outline

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IRRS   Schedule :

Countries with Nuclear Installations

- **Romania, January 2006 (Follow-up IRRT and RaSSIA)**
- **UK, March 2006 (1st Phase)**
- **France, November 2006 (Full Scope)**
- **Australia, Japan, June 2007**
- **Spain, Pakistan, Germany, UK (2nd Phase), Peru, 2008**
- **Russia, Canada, France (Follow-up), Ukraine, 2009**
- **United States of America, China, 2010**
- **Sweden, Netherlands, South Africa, Statements of Intent**

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Countries requested IRRS for sources:

- Algeria, Angola, Cameroon, Gabon, Kenya, Mauritius, Mongolia, Niger, Palau, Qatar, Uzbekistan. 2007

- Botswana, Burundi, Central African Republic, Cote d'Ivoire, DR Congo, Guatemala, Haiti, Lebanon, Madagascar, Mozambique, Namibia, Oman, Paraguay, Saudi Arabia, Uganda, Venezuela, and Zimbabwe. Statements of intent

Regulatory Sharing Knowledge Network

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Regulatory Sharing Knowledge Network

- To develop a regulatory network including

  - **Establish a web-based platform to share regulatory information;**

  - **Collect and disseminate regulatory information, actions, challenges, initiatives and lessons learned;**

  - **Analyze and formulate regulatory issues and trends;**

  - **Disseminate the IRRS findings;**

  - **Identify the needs for regulatory assistance, activities or missions to MS;**

  - **Promote the exchange of regulatory staff among MS**

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Regulatory Sharing Knowledge Network

- Key Elements

    - **IRRS database**

    - **Regulatory Knowledge**

    - **Regulatory experiences**

    - **Main Challenges to be used later as new policy issues**

    - **Issues coming from legal–binding (Conventions) and non-binding international Instruments (Code of Conducts)**

    - **Regulatory Issues and Trends**

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…Thank you for your attention……IRRS Team