Main objectives of nuclear and radiation safety regulation

- **Establishment and maintenance of conditions of comprehensive protection of the society and state from inadmissible radiation impact**

- **Prevention of uncontrolled proliferation and use of nuclear material and radioactive substance**
Federal Environmental, Industrial and Nuclear Supervision Service of Russia (Rostechnadzor)

Structure of the executive authorities in the Russian Federation

Government of the Russian Federation

Federal Ministries

- Federal Services
- Federal Agencies

(Subordinated to the Ministries)

Federal Services, subordinated to the Government of the Russian Federation

Rostechnadzor

Federal Agencies, subordinated to the Government of the Russian Federation
Main Nuclear Safety Regulatory Functions

1. Development and enactment of safety regulations in the use of atomic energy

2. Licensing of activities in atomic energy use, including organization of safety reviews

3. Supervision of nuclear and radiation safety of nuclear installations, including supervision of nuclear materials accounting, control and physical protection
Structure of the Legislative and Regulatory Documents

- Constitutional
- International Agreements, Federal Laws
- Presidential Acts and Government Decrees
- Technical Regulations
- Federal Norms and Rules in the Field of Atomic Energy Use
- Administrative Regulations
- Guiding Documents
- Safety Guides
- National Standards, Standards of Enterprise
- Mandatory Documents
- Legislative Acts (Legal Acts of the Russian Federation)
- Recommendations
Federal Law "On atomic energy use"

1. Establishes legal and regulatory framework in the field of atomic energy use
2. Highlights its priority over other Federal Laws, which cover atomic energy use
3. Defines independence of regulatory body and its authorities
4. Defines fulfillment of international obligations by the Russian Federation
5. Broadens the scope of Federal Norms and Rules in the field of atomic energy use. Adds new type of documents – Safety Guides in the field of atomic energy use
6. Other aspects of nuclear and radiation safety regulation
Federal Law "On Atomic Energy Use"

Federal Norms and Rules in the field of atomic energy use (Federal Norms and Rules)

- Are obligatory for all the legal entities and individuals on the territory of the Russian Federation
- Are approved and implemented by the state safety regulatory bodies within their competence
- The procedure for development and approval of Federal Norms and Rules is established by the Russian Government
System of Federal Norms and Rules

1st level:
Federal Norms and Rules
establishing objectives, principles
and general requirements for
safety (analog to SF-1)

2nd level:
Federal Norms and Rules
establishing requirements for siting, design
(construction), operation and decommissioning of
nuclear facilities, its systems, elements as well as
physical protection, accounting and control of
radioactive materials, management of radioactive
waste (analog to Safety Requirements)
43 Federal Norms and Rules are at different stages of development, applicable to different facilities and activities:

14 new documents and 29 documents under revision
Compliance of Federal Norms and Rules legal and regulatory framework with IAEA Safety Standards


2. However, the new IAEA Safety standards shall be considered during the revision of current legal and regulatory framework.
<table>
<thead>
<tr>
<th>Safety Issues in NP</th>
<th>Original name of the document</th>
<th>IAEA Safety Standards</th>
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</table>
| Safety of Nuclear Power Plants           | *** General Provisions for safety of NPP (revision of NP-001-97)                            | SSR-2/1 on Design of NPP  
SSR-2/2 on Commissioning and Operation of NPP                                         |
| Emergency preparedness and response      | *** Provisions for procedure of emergency notification, sharing of information, response to provide assistance to NPP in case of radioactive accident (revision of NP-005-98) | GS-R-2 Preparedness and Response for a Nuclear or Radiological Emergency  
GSG-2 Criteria for Use in Preparedness and Response for a Nuclear or Radiological Emergency  
GSR-3 Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards |
| Transport of radioactive material        | *** Safety provisions for transportation of radioactive material (revision of NP-053-04)      | SSR-6 Regulations for the Safe Transport of Radioactive Material.                      |
| Safety of radioactive sources            | *** Provisions for physical protection of radioactive substance, radioactive sources and storage facilities (revision of NP-034-01) | RS-G-1.9 Categorization of Radioactive sources  
NSS 11 Security of Radioactive Sources                                                                                   |
## Compliance of Federal Norms and Rules with IAEA Safety Standards

<table>
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<tr>
<th>Safety aspects</th>
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<tr>
<td>Safety of Nuclear Power Plants</td>
<td>NP-001-97 General Provisions for safety of NPP</td>
<td>NSR-1 Design of NPP</td>
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<td>NSR - 2 Operation of NPP (superseded)</td>
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<tr>
<td></td>
<td>NP-020 –2000 Gathering, processing, conditioning of solid radioactive waste</td>
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<td>NP-021 – 2000 Gaseous radioactive waste management</td>
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<td></td>
<td>NP-055-04 Disposal of radioactive waste: principles, criteria, general requirements</td>
<td>SSR-5 Disposal or Radioactive Waste</td>
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<tr>
<td>Decommissioning of Facilities</td>
<td>NP-012-99 Provisions for decommissioning of NPPs</td>
<td>WS-R-5 Decommissioning of Facilities Using Radioactive Material</td>
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## Compliance of Federal Norms and Rules with IAEA Safety Standards

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<tr>
<td>Safe Transportation of Radioactive Material</td>
<td><strong>RB-039-07</strong> Safety assurance for the transport of radioactive material (Advisory material for the NP-053-04 – “Safety provisions for the transport of radioactive material”)</td>
<td><strong>TS-G-1.1</strong> Advisory Material for the IAEA Regulations for the Safe Transport of Radioactive Material</td>
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<tr>
<td>Account and control of Nuclear material</td>
<td><strong>NP-030-12</strong> General provisions for account and control of nuclear material</td>
<td><strong>INFCIRC/153</strong> On the Non-proliferation of nuclear weapons</td>
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<tr>
<td></td>
<td><strong>NP-083-07</strong> Requirements for security systems of nuclear material, nuclear installations and storage facilities</td>
<td><strong>INFCIRC/225</strong> Nuclear security recommendations on physical protection of nuclear material and nuclear facilities.</td>
</tr>
<tr>
<td>Safety of radioactive sources</td>
<td><strong>NP-038-02</strong> General provisions for safety of radioactive source</td>
<td><strong>GSR-3</strong> Radiation protection and safety of Radiation sources - Interim Edition(BSS)</td>
</tr>
</tbody>
</table>
Safety Guides in the field of atomic energy use

Safety Guides are intended to facilitate the implementation of Federal Norms and Rules requirements.

These documents contain recommendations how to comply with requirements set up by the Federal Norms and Rules for all nuclear facilities, including safety assessment and review.

84 Safety Guides were approved

20 Safety Guides are at different stages of drafting
IAEA Integrated Regulatory Review Service (IRRS) Missions to the Russian Federation

IRRS Mission
November, 2009

- 25 Recommendations
- 34 Suggestions
- 5 Good Practices

Action Plan of Rostechnadzor
March, 2011

- 46 activities
- 29 R&D in SEC NRS

IRRS Follow-up Mission
November, 2013

+ 2 Additional Modules

SCOPE

- Responsibilities and Functions of the Government
- Global Nuclear Safety Regime
- Responsibilities and Functions of the Regulator
- Management System of the Regulatory Body
- Authorization
- Review & Assessment
- Inspection
- Enforcement
- Development of Regulations & Guides

- Tailored Module to Address the Regulatory Implications of the Fukushima Accident
- Module “EPR”
# IRRS Follow-up Mission

- Implementation status of recommendations and suggestions resulted from IRRS Mission
- New observations

<table>
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<th>Recommendations</th>
<th>Suggestions</th>
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<td>IRRS Mission-2009 results</td>
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<td>Closed on the basis of progress made</td>
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<tr>
<td>Remain Open in 2013</td>
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<td>12</td>
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<tr>
<td>IRRS Follow-up Mission-2013 results</td>
<td>5</td>
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<td>5</td>
</tr>
</tbody>
</table>

**Action Plan of Rostechnadzor – 2014**
Good Practices identified during IRRS Follow-up Mission

- Effective contribution of the Russian Federation to the development of measures and programs that may strengthen the global safety regime in the wake of the Fukushima-Daiichi accident
- Benchmarking of nuclear power plant assessment and inspection with foreign regulatory bodies
- Systematic emergency exercise evaluation methodology
- Detailed regulations on the contents of licensee emergency plans
- Rostechnadzor proactive approach to revise the national regulations for transport of radioactive material with due consideration of the simultaneous revision of the relevant IAEA Safety Standards
Thank you for attention!