



Federal Environmental, Industrial and Nuclear Supervision Service  
Scientific and Engineering Centre for Nuclear and Radiation Safety



# Legal basis on regulatory control for radioactive discharges to environment

Head of nuclear and  
radiation safety department, PhD  
A.V. Kuryndin

***IX International Forum ATOMEXPO***

Moscow, 2017

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# Provisions of strategic planning documents



## Strategy of ecological safety of Russian Federation till year 2025

### ✓ Main objective

- *Prevention of surface water bodies pollution*
- *Prevention of further pollution of ambient air and reduction of level of its current pollution*

### ✓ Main way of carrying out

- *Regulating and permission granting in environmental protection field*

### ✓ One of priority tasks

- *Improvement of legislation*



# Provisions of strategic planning documents (contd.)



## Milestones of state policy in the field of nuclear and radiation safety of Russian Federation till year 2025

### ✓ Objective

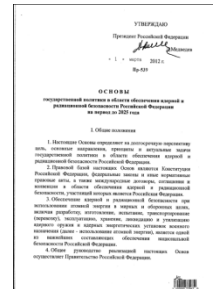
- *Consecutive reduction of risk of exposure of people and environment due to atomic energy use down to socially acceptable risk level*

### ✓ One of priority directions

- *Improvement of state regulatory control on safety of atomic energy use*

### ✓ Topical task (within priority direction mentioned above)

- *Improvement and development of legislation in the field of atomic energy use*



# Rostechnadzor mandate on regulatory control of radioactive discharges



*Government Decree 30.07.2004  
№ 401  
«On Federal Environmental,  
Industrial and Nuclear  
Supervision Service of  
Russia»*



- ✓ **Setting of radioactive airborne discharge limits and radioactive liquid discharge limits to water bodies**
  - ✓ **Authorization of liquid and airborne discharges to environment**
- ✓ **Approving methodologies for evaluation of radioactive discharge limits**
  - ✓ **Approving federal rules and regulations in the field of atomic energy use**
- ✓ **Approving safety guides on compliance with federal rules and regulations**

# Methodological basis for regulatory control of radioactive discharges




## *Methodology for development of liquid discharge limits to surface water bodies*



**approved by  
Rostechndzor  
decree  
22.12.2016  
№ 551**

## *Methodology for development of airborne discharge limits*



**approved by  
Rostechndzor  
decree  
09.11.2012  
№ 639**

### *Recommendations on evaluation of parameters need to calculate liquid discharge limits*



### *Recommended contents of report on calculation of discharge limits*



### *Recommendations on evaluation of parameters need to calculate airborne discharge limits*



# Compliance with discharge limits as a safety criterion, established in federal rules and regulations



*NPPs*  
*(NP-001-15)*



*Research reactors*  
*(NP-033-11)*



*Nuclear fuel cycle facilities*  
*(NP-016-05)*



*approved by*  
*Rostekhnadzor decree*  
*17.12.2015 № 522*



*approved by*  
*Rostekhnadzor decree*  
*30.06.2011 № 348*



*approved by*  
*Rostekhnadzor decree*  
*02.12.2005 № 11*

# Legislative amendments concerning a list of radionuclides are to be regulated



## GOVERNMENT DECREE 08.07.2015 № 1316-P

Regulatory control measures shall be implemented:

- in airborne effluents – to 93 radionuclides (including tritium and radiocarbon)
- in liquid effluents – to 80 radionuclides (including tritium)
- the list consist of radionuclides which are measured in effluents of NPPs in Russia and in effluents of NPPs of Russian designs, which are operated beyond Russian territory (e.g.  $^{54}\text{Mn}$ ,  $^{90}\text{Sr}$ ), but which wasn't embraced by earlier approach on regulatory control of radioactive discharges
- the new approach on regulatory control of radioactive discharges (including amount of radionuclides regulated) complies with Euratom approach (2004/2/Euratom)

# Change of the approach on regulatory control of radioactive discharges after assigning the mandate to Rostekhnadzor



## BEFORE

- ✘ absence of unified statewide legal criterial and methodological basis for setting discharge limits
- ✘ sporadic case-by-case nature of criteria and metodologies based on which discharge limits were evaluated
- ✘ NPPs' airborne discharge limits were set in sanitary document SP AS-03 for narrow list of few radionuclides

## AFTER

- ✓ unified statewide legal criterial and methodological basis for setting discharge limits
- ✓ discharge limits are set for radionuclides which are really contribute to exposure from list of radionuclides are to be regulated
- ✓ discharge limits are set for effluent sources which are really contribute to exposure



# Further changes of legislation

## FEDERAL LAW

21.07.2014

№ 219-FZ

«On amendments to federal law  
«On environmental protection»  
and to some laws of Russian  
Federation»



## From 1 January 2019

- ✓ Procedure for setting and evaluation of radioactive discharge limits and for discharge authorization shall be established by Government of Russian Federation
  - *Rostekhnadzor prepared a draft of the procedure, the draft is now considered by other competent authorities*
- ✓ In order to avoid adverse impact on environment discharge limits to environment shall be set
  - *Need for setting liquid discharge limits to environmental media different from surface water bodies are taken into account and provided in the draft mentioned above*

# CONCLUSIONS

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- ✓ The system of Rostekhnadzor regulations and guides on regulatory control of airborne and liquid discharges to surface water bodies is nearly completed
- ✓ As far as safety is a process not a product, further development of system for regulatory control of discharges needed

**Спасибо за внимание!**