ROSATOM STATE ATOMIC ENERGY CORPORATION (Rosatom State Corporation) ORDER

5/12/2017

No. 1/1232 - P

Moscow

On approval of the Unified Industry Ecological Policy of Rosatom State Corporation and Its Organizations

In order to improve the implementation system of the Ecological Policy of Rosatom State Corporation and its organizations

I HEREBY ORDER:

1. To approve the Unified Industry Ecological Policy of Rosatom State Corporation and its organizations (Appendix No. 1).

2. The heads of Rosatom State Corporation organizations listed in Appendix 2 to this Order, as well as organizations within the framework of their management network, shall ensure enactment of the organization's corporate regulations prescribing the updating of their ecological policy taking into account the provisions of the Unified Industry Ecological Policy of Rosatom State Corporation and its organizations and with the Regulation on cooperation between the organization and Rosatom State Corporation.

Deadline is 20/12/2018.

3. To recommend to the heads of federal state unitary entities, in relation to which Rosatom State Corporation performs on behalf of the Russian Federation the authority of a property owner, heads of stock companies, whose shares belong to the Russian Federation and in relation to which Rosatom State Corporation performs the authority of a shareholder, their subsidiary companies, business entities, shares of which are owned by Rosatom State Corporation, their subsidiary companies, institutions incorporated by Rosatom State Corporation and above-mentioned organizations, excluding Rosatom State Corporation organizations mentioned in clause 2 of this Order, to ensure the application of local regulations of the organization, providing the updating of its ecological policy, taking into account the provisions of the Unified Industry Ecological Policy of Rosatom State Corporation and its organizations.

4. Organizations of Rosatom State Corporation, included in the List of Ecologically Significant Organizations of Rosatom State Corporation, and management companies whose management circuit includes ecologically significant organizations, should submit updated ecological policies of organizations to Grachev V.A., the coordinator for implementation of the Ecological Policy of Rosatom State Corporation.

Deadline is 30/10/2018.

5. The following shall be considered as repealed:

paragraph 1 of the Order of Rosatom State Corporation dated 25/9/2008 No. 459 "On approval and implementation of the Ecological Policy of Rosatom State Atomic Energy Corporation";

the Order of Rosatom State Corporation dated 5/9/2013 No. 1/937-P "On updating the Ecological Policy of Rosatom State Corporation and its organizations".

Director General /signature/ A.Ye. Likhachev

O.S. Golovikhina (499) 949-23-20

Appendix No. 1

APPROVED BY the Order of Rosatom State Corporation dated <u>5/12/2017</u> No. <u>1/1232-P</u>

UNIFIED INDUSTRY ECOLOGICAL POLICY of Rosatom State Corporation and its organizations

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1. Purpose and Scope

1.1. This Unified Industry Ecological Policy of Rosatom State Corporation and its organizations (hereinafter referred to as the Ecological Policy) defines the strategic goal, principles, tasks and mechanisms for implementing the Ecological Policy of Rosatom State Corporation (hereinafter referred to as the Corporation), taking into account the specific of activities of the Corporation's organizations and the Corporation's obligations in the field of ecological protection and environmental safety.

1.2. The Ecological Policy of the Corporation is based on the Constitution of the Russian Federation and the legislation of the Russian Federation, the norms of international law recognized by the Russian Federation and the provisions of the following fundamental documents: "Fundamentals of State Policy in the Field of Ecological Development of the Russian Federation for the Period up to 2030", "Fundamentals of State Policy in the Field of Nuclear and Radiation Safety of the Russian Federation for the Period up to 2025", "Strategy for Ecological Safety of the Russian Federation for the Period up to 2025".

1.3. Ecological Policy is the basis for the development of relevant local regulations in the field of environmental protection and ecological safety.

1.4. Compliance with the Ecological Policy is mandatory for all employees of the Corporation and Corporation's organizations.

1.5. Person responsible for updating the Ecological Policy and monitoring its implementation is the head of the Department for Work with the Regions of Rosatom State Corporation.

2. Terms, Acronyms and Abbreviations

In this document, along with the terms and definitions established in the legal regulations of the Russian Federation and local regulations of the Corporation, a special conceptual apparatus is used that reveals the features and semantic meaning of the Ecological Policy.

| 2.1. Terms | 2.1. | Terms |
|------------|------|-------|
|------------|------|-------|

| 2.1. Terms | |
|---|--|
| Term | Definition |
| Environmental Impact of the Corporation's organizations | change in environmental quality in the regions where the Corporation's organizations are located as a result of their activities |
| Environment in the regions where the Corporation's organizations are located | set of components of the natural environment, natural and natural and man-made, as well as man-made objects located in the regions where the Corporation's organizations are located |
| | activities of Corporation's organizations aimed at preserving and restoring the environment, rational use of natural resources, preventing possible negative impacts on the environment by Corporation's organizations, and eliminating the accumulated harm |
| Implementation of the Ecological Policy | systemic activities aimed at ensuring the ecologically oriented development of the Corporation and Corporation's organizations |
| Ecological safety | one of the components of national security, the safety of the natural environment and humans, taking into account all types of possible negative impact of the activities of Corporation's organizations |
| Ecologically sustainable development of the nuclear industry | stable balanced technical and technological and social and economic development of the Corporation and Corporation's organizations while ensuring environmental impact at a reasonably achievable low level |
| Environmental monitoring (ecological | comprehensive monitoring of the state of the environment in |
| | |

| Term | Definition |
|-------------|---|
| monitoring) | the regions where the Corporation's organizations are located, including environmental components, ecological systems and radiation environment, assessment and forecast of changes in their state as a result of the activities of the Corporation's organizations |

| $\gamma \gamma$ | Shortonings used for | the numpered | of this document | and their interpretations |
|-----------------|----------------------|--------------|------------------|---------------------------|
| <i>L.L</i> . | Shortenings used for | ule purposes | of this document | |
| | | | | |

| Shortening | Interpretation |
|-----------------------------|---|
| Corporation | Rosatom State Atomic Energy Corporation |
| Nature-Oriented Legislation | The legislation of the Russian Federation in the field of environmental protection, nature management and ecological safety |
| Ecological Policy | Unified Industry Ecological Policy of Rosatom State Corporation and its Organizations |

2.3. Abbreviations used for the purposes of this document and their interpretations

| Abbreviation | Interpretation |
|--------------|---|
| RW USS | Unified State System for Radioactive Waste Management |
| BAT | Best Available Technologies |
| NF | Nuclear Facilities |
| SNF | Spent Nuclear Fuel |
| RW | Radioactive Wastes |
| RS | Radioactive Substances |
| NM | Nuclear Materials |

3. Introductory Provisions

3.1. The Corporation's management circuit includes over 300 organizations working in the fields of nuclear energy and nuclear weapons complex, mechanical engineering, instrument making and digital technologies. The areas of activity of the Corporation's organizations include atomedics, scientific research, development of renewable energy generation, production of various nuclear and non-nuclear innovative products, nuclear icebreaking fleet. The Corporation is entrusted with the functions of a state administration body for the use of atomic energy and the management of radioactive wastes in the Russian Federation.

3.2. The strategic goal of Ecological Policy is to ensure the ecologically-oriented development of the Corporation and Corporation's organizations while maintaining a high level of ecological safety and reducing ecological risks associated with the use of atomic energy and the implementation of other activities.

3.3. The ecological situation in the regions where the Corporation's organizations are located depends on the general level of the present man-made impact on the environment and the ecological consequences of past activities that have involved radioactive and chemical pollution of environmental components.

3.4. The Corporation is aware that the functioning of the Corporation's organizations may have a negative impact on the environment and the population. Minimizing such impact and ensuring ecological safety are among the most important priorities of the Corporation and Corporation's organizations, and therefore the ongoing Ecological Policy is the most important tool for achieving ecological goals.

3.5. The Corporation and the Corporation's organizations use a systematic approach to the implementation of Ecological Policy, including planning, implementation of nature-oriented measures, reporting, assessment of ecological efficiency of results, external and intra-industry

control, as well as timely corrective actions taking into account the requirements of the nature-oriented legislation.

3.6. The need to update the Ecological Policy is due to the adoption of strategic documents in the field of environmental protection and ecological safety at the level of the Russian Federation and due to changes in nature-oriented legislation. A new system of nature-oriented regulation is being introduced, including general and differentiated requirements. In case of failure to comply with the new ecological requirements in a timely manner, the Corporation and the Corporation's organizations have negative financial, economic, ecological and social consequences, and image and reputation risks increase.

4. Principles for Implementation of the Ecological Policy of the Corporation and Corporation's organizations

The Ecological Policy is implemented in accordance with the following key principles:

the compliance principle is ensuring that the activities of the Corporation and its organizations comply with legislative and other regulatory requirements and standards, including international ones, in the field of ecological safety and environmental protection;

the principle of presumption of potential ecological hazard of activities is a realization that any activity may negatively affect the environment, maintaining high priority of and adhering to strict requirement to perform analyses of ecological factors and environmental impact assessments whenever any activity of the Corporation and its organizations is planned or carried out;

the principle of scientific validity of decisions is a scientifically based approach to the adoption of ecologically significant decisions by the management and officials of the Corporation and Corporation's organizations with the involvement of the expert community, as well as the mandatory use of modern and promising scientific achievements;

the principle of coherence is a combination of ecological, economic and social interests of the Corporation and the population, public organizations, state authorities and local authorities in the regions where the Corporation's organizations are located in the interests of sustainable development and ensuring a favorable environment and ecological safety;

the principle of ecological efficiency is ensuring of high performance indicators of the nature-oriented activities, reducing the negative impact on the environment from the activities of the Corporation's organizations and the use of natural resources at a reasonable cost level;

the principle of information transparency is a compliance with the public right to receive, in the established manner, reliable information about the state of the environment in the regions where the Corporation's organizations are located, transparency and accessibility of ecological information;

the principle of preparedness is a constant readiness of the management and employees of the Corporation and Corporation's organizations to prevent, localize and eliminate the consequences of possible man-induced accidents, when using atomic energy, and other emergency situations at the NF;

the principle of acceptable risk is using of a risk-oriented approach to ensure that all managerial decisions are ecological efficient;

the principle of continuous improvement is a continuous improvement of the environmental protection and ecological safety management system through the use of target-oriented parameters and indicators of ecological efficiency;

the principle of best practices is using of the best national and international practices as regards the improvement of the environmental condition and ecological safety assurance, introducing the BAT and ecological-friendly innovations in the use of nuclear energy.

5. The Main Tasks and Mechanisms for Implementation of the Ecological Policy of the Corporation and Corporation's organizations

5.1. Improving the system of implementation of the Ecological Policy of the Corporation and the Corporation's organizations through the use of the following mechanisms:

improving management performance in the field of environmental protection and ecological safety;

improving the planning and reporting system within the framework of the Corporation's Ecological Policy implementation system;

assessment of the effectiveness of the Ecological Policy implementation; involvement of

Corporation's organizations in the Ecological Policy implementation system in accordance with the category of facilities that have a negative impact on the environment, and in accordance with criteria for classifying organizations as ecologically significant;

development of criteria and indicators for assessing the ecological efficiency of nature-oriented protection activities of the Corporation's organizations;

public reporting in the field of environmental protection and ecological safety of the Corporation and Corporation's organizations;

increasing the effectiveness of interaction with state authorities and local governments, conducting an open dialogue on the safe development of the nuclear industry evolution;

expansion of the practice of ecological audit in the Corporation's organizations;

improving the environmental management system with the ability to integrate with quality management systems, health and safety and energy management.

5.2. Improving regulatory support in the field of environmental protection and ecological safety when using atomic energy through the use of the following mechanisms:

analysis and examination of the applicability of draft legal regulations and other documents being developed by state authorities in the field of environmental protection and ecological safety;

preparation of proposals for amending legislative and other legal regulations taking into account ecological aspects of the activities of the Corporation's organizations;

development of local regulations and regulatory documents, standardization documents adapted to new legislative requirements in the field of environmental protection and ecological safety;

improving the quality of project documentation, engineering and ecological surveys, environmental impact assessment materials, and rationale for a license to carry out a licensed activity, examination of technical documentation.

5.3. Reducing the negative impact of the Corporation's organizations on the environment through the use of the following mechanisms:

development and implementation of measures to reduce the influx of harmful (polluting) substances, including radioactive ones, into the environment (wastewater discharges into water bodies, emissions into the atmospheric air, generation of production and consumption waste);

ensuring investments in fixed capital for nature-oriented purposes; implementation of measures to eliminate accumulated ecological harm as a result of past economic activity, and rehabilitation of territories;

the use of BAT and innovative ecologically efficient technologies that provide an effective solution to environmental issues and ecological safety, reducing energy and resource consumption, as well as the secondary use, recycling and disposal of production and consumption waste;

control of emissions of greenhouse gases and ozone-depleting substances of the Corporation's organizations.

5.4. Ensuring environmental, including radiation, safety at all stages of the nuclear fuel cycle: in the extraction of raw materials, fuel fabrication, energy generation, RW and SNF management through the use of the following mechanisms:

improving the level of ecological safety during the operation of NF; improving the SNF and RW management system for safe long-term storage, transportation, reprocessing and disposal; completion of the creation of the RW USS and compliance with the deadlines for its implementation; minimization of storage volumes and rates of time in service of SNF and RW; resolving issues of safe final isolation of RW; development and implementation of nature-oriented measures during decommissioning of nuclear and radiation hazardous facilities;

improvement of the account and control system for nuclear materials, radioactive substances and radioactive waste; compliance with safety requirements during transportation of nuclear materials, radioactive substances, radioactive waste, spent nuclear fuel;

implementation of nuclear-powered measures in the framework of the disposal of decommissioned military and civilian vessels, including nuclear maintenance vessels, as a preventive measure to prevent pollution of water bodies;

implementation of measures provided for by the federal target program "Ensuring Nuclear and Radiation Safety for 2016-2020 and for the Period until 2030";

expanding the practice of post-project analysis of environmental impact assessment.

5.5. Improving ecological and radiation monitoring and control in the Corporation's

organizations through the use of the following mechanisms:

improvement of industry and facility systems for control and monitoring of the state of the environment and radiation situation, as well as safety monitoring and control systems;

the use of advanced automatic and facilities during ecological monitoring and industrial ecological control;

prediction of the processes of distribution of radionuclides in the subsoil, mainly using domestic supercomputers and software.

5.6. Development of international cooperation in the field of environmental protection, ecological safety and sustainable development of the Corporation and the Corporation's organizations through the use of the following mechanisms:

increasing the effectiveness of international information exchange and participating in international projects in priority areas of science, engineering and technology development;

use of foreign experience in solving nature-oriented problems;

participation in the preparation of international norms and rules for the use of atomic energy.

5.7. Improving interaction with the public and taking public opinion into account when planning and implementing the Corporation's activities, implementing programs and plans for the development of the nuclear industry through the use of the following mechanisms:

ensuring information transparency and accessibility of information on the current and planned activities of the Corporation and the Corporation's organizations, which may have a negative impact on the environment, on the ecological situation in the region where the Corporation's organizations are located, including through the preparation and publication of non-financial reports and ecological reports of the Corporation's organizations with the involvement of the public;

posting on the Internet information on ecological and radiation conditions in regions where the Corporation's organizations are located;

participation and consideration of the opinions of interested parties in the process of assessing the environmental impact of the activities of the Corporation's organizations;

formation of an expert ecological community with the participation of educational and scientific organizations in the region where the Corporation's organizations are located;

conducting and recording the results of public discussions, public hearings and other forms of public participation and control;

assistance in conducting public ecological review.

5.8. Improving the level of ecological education and ecological culture of nuclear industry employees and ecological awareness of the population in the regions, where the Corporation's organizations are located, through the use of the following mechanisms:

improving the system of training, certification and admission of personnel to work in the Corporation's organizations;

support for social and ecological events and projects implemented in the territories of the Corporation's presence;

improving the training system for managers and experts in the field of environmental protection and ecological safety of the Corporation's organizations;

holding meetings, seminars, conferences and other events on environmental protection, ecological and radiation safety;

implementation of measures on ecological education and awareness, on the formation of ecological culture and an objective attitude of the population to the activities of the Corporation's organizations.

6. Obligations of the Corporation and Corporation's Organizations

To achieve the strategic objective of Ecological Policy, the Corporation and the Corporation's organizations assume the following obligations:

6.1. At all stages of the life cycle of the NF, as well as in carrying out business activities in non-nuclear fields of activity, to conduct a prognostic assessment of the environmental impacts of the activities of the Corporation's organizations in order to reduce ecological risks and prevent emergency situations.

6.2. To ensure the reduction of specific indicators of emissions and discharges of pollutants into the environment, the volume of generation of wastes, including radioactive ones, as well as the reduction of environmental impact.

6.3. To ensure the ecological efficiency of management decisions by using a system of criteria and indicators of ecological efficiency.

6.4. Introduce and support the best environmental management and ecological safety management practices in accordance with national and international ecological management standards.

6.5. To develop and introduce in the Corporation's organizations BAT and innovative and ecologically efficient technologies in the field of atomic energy use.

6.6. To provide the necessary resources, including human, financial, technological, environmental protection and ecological safety.

6.7. To improve the system of industrial ecological control and monitoring, apply modern methods and means of measurement, develop automated systems of ecological control and monitoring.

6.8. To involve interested citizens, public and other non-profit organizations in the established order to participate in the discussion of the planned activities in the field of use of atomic energy on environmental issues and ensuring of ecological safety.

6.9. To ensure interaction and coordination of activities in the field of environmental protection and ecological safety with state authorities of the Russian Federation, state authorities of the constituent entities of the Russian Federation, and local authorities.

6.10. To ensure the reliability, openness, accessibility and objectivity of information on the environmental impact of the Corporation's organizations in the regions where they are located, as well as measures taken to protect the environment and ensure ecological safety.

6.11. To promote the formation of an ecological culture, the development of ecological education for all employees of the Corporation's organizations and ecological awareness of the population in the regions where the Corporation's organizations are located.

7. Regulatory References

1. Constitution of the Russian Federation.

2. Land Code of the Russian Federation.

3. Water Code of the Russian Federation.

4. Federal Law No. 170-FZ "On Use of Atomic Energy" dated November 21, 1995.

5. Federal Law No. 174-FZ "On Ecological Review" dated November 23, 1995.

6. Federal Law No. 3-FZ "On Radiation Safety of the Population" dated January 9, 1996.

7. Federal Law No. 89-FZ "On Production and Consumption Wastes" dated June 24, 1998.

8. Federal Law No. 96-FZ "On Atmospheric Air Protection" dated May 4, 1999.

9. Federal Law No. 7-FZ "On Environment Protection" dated January 10, 2002.

10. Federal Law No. 184-FZ "On Technical Regulation" dated December 27, 2002.

11. Federal Law No. 317-FZ "On State Atomic Energy Corporation Rosatom" dated December 1, 2007.

12. Federal Law No. 190-FZ "On the Management of Radioactive Waste and on Amendments to Certain Legislative Acts of the Russian Federation" dated July 11, 2011.

13. Federal Law No. 212-FZ "On the Fundamentals of Public Control in the Russian Federation" dated July 21, 2014.

14. The Ecological Safety Strategy of the Russian Federation for the period until 2025, approved by Decree No. 176 of the President of the Russian Federation dated April 19, 2017.

15. Fundamentals of state policy in the field of nuclear and radiation safety of the Russian Federation for the period until 2025, approved by the President of the Russian Federation on March 1, 2012.

16. Fundamentals of state policy in the field of ecological development of the Russian Federation for the period until 2030, approved by the President of the Russian Federation on April 30, 2012.

17. Decree of the Government of the Russian Federation dated April 15, 2014 No. 326 "On Approval of the Russian Federation Environmental Protection State Program for 2012-2020".

18. Decree of the Government of the Russian Federation dated August 17, 2016 No. 806 "On the Application of a Risk-Oriented Approach in Organizing Certain Types of State Control (Supervision) and Amending Certain Acts of the Government of the Russian Federation".

19. The Federal Target Program "Ensuring Nuclear and Radiation Safety for 2016-2020

20. The Climatic Doctrine of the Russian Federation, approved by the Decree No. 861-rp of the President of the Russian Federation dated December 17, 2009.

21. GOST R ISO 14001-2016 "Ecological Management Systems. Requirements and Application Guidelines", approved and enforced by the Order No. 285-st of Rosstandart dated April 29, 2016.

22. Unified Industry Policy of the State Corporation Rosatom in the field of public reporting, approved by the Order No. 1/403-P of the State Corporation Rosatom dated May 13, 2011.

Appendix No. 2 to Decree of Rosatom State Corporation dated <u>5/12/2017</u> No. <u>1/1232-P</u>

List

of the Organizations of the State Corporation "Rosatom" with which there are Signed Regulations for the Cooperation between the Joint-Stock Company/Federal State Unitary Enterprise and the State Corporation "Rosatom"

- 1. Rosenergoatom Concern OJSC;
- 2. TVEL JSC;
- 3. AtomRedMetZoloto JSC;
- 4. Atomenergomash JSC;
- 5. Science and Innovations JSC;
- 6. Federal Centre for Nuclear and Radiation Safety, Joint-Stock Company;
- 7. OTEK JSC;

8. Russian Federal Nuclear Center All-Russian Research Institute for Experimental Physics FSUE;

9. SPC Khimpromengineering JSC.