

International Conference on Safe and Secure Transport of Nuclear and Radioactive Materials (CN-341/EVT2501005)

Abstract of the presentation for the conference

"Organization of Multimodal Corridors For the Transportation of Nuclear Materials Between Europe and Asia Via the Territory of the Russian Federation"

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will be presented by P.V. Shadeev, JSC "TENEX TRANSPORT SYSTEMS"

The geographical location of the Russian Federation (hereinafter referred to as Russia), the existing developed railway network (in terms of the length of railways, Russia is in the top 3 after China and India with an indicator of 44.3 thousand km) together with the developed sea ports infrastructure, good-quality highways, specialized places for processing and storage of nuclear materials allow the Russian side to offer foreign customers and successfully carry out multimodal transportation of nuclear materials between Europe and the countries of the Asian region via the territory of Russia.

Current experience and experience of previous years indicate that all transportations nuclear materials via the territory of Russia meets the requirements for ensuring the safety and protection of people, property, and the environment from the harmful effects of ionizing radiation during transportation. Protection is ensured by measures to retain radioactive contents, control over external dose rate, measures to prevent criticality, and measures to prevent damage caused by heat.

The fulfilment of the above requirements, in addition to the differentiated approach to the limits of the contents of packages and conveyances, as well as to the regulatory characteristics of the design of packages depending on the hazard posed by the radioactive contents, and with regard to the design and operation of packages, as well as the servicing of packaging assemblies, including taking into account the nature of the radioactive contents, is achieved, inter alia, through the mandatory application of administrative control measures, including, where necessary, approval procedures by competent authorities - this is an important aspect.

The transportation of nuclear materials is impossible without additional protection measures, which are ensured through planning and preparation of emergency response to protect people, property and the environment.

Transportation of nuclear materials via the territory of Russia is carried out in accordance with the regulatory requirements for this type of transportation. These requirements are set out in the Federal Norms and Rules in the Field of Use of Atomic Energy "Safety Rules for the Transportation of Radioactive Materials" (NP-053), synchronized with the international rules for the safe transportation of radioactive materials SSR-6 (Rev.2) of IAEA.

The permitting documents for the transportation of nuclear materials in Russia are:

- license of the Federal Service for Ecological, Technological and Nuclear Supervision for transportation;
- license for the operation of a nuclear materials storage facility;
- certificate of permission for the design of the packaging;
- certificate of permission for the transportation of the packaging;
- sanitary and epidemiological conclusion.

As with the transportation of nuclear materials in any country in the world, the transportation of nuclear materials via the territory of Russia includes *all operations* and conditions that are associated with the movement of nuclear materials and constitute this process, in particular the design, manufacture, maintenance and repair of the packaging (or certification of foreign packaging), as well as preparation, loading, dispatch, transportation, including transit storage, transportation after storage, unloading and acceptance at the final destination of nuclear materials and packages.

During transportation of nuclear materials, measures of control, route selection, physical protection, which are established for reasons not related to radiation safety. The said control measures must take into account radiation and non-radiation hazards without deviating from the safety standards prescribed by the IAEA Rules for the Safe Transport of Radioactive Materials.

The Russian side ensures reliable measures to ensure the safety of nuclear materials during transportation in order to prevent theft and damage, and also takes into account additional risks during transportation together with other dangerous goods.

The Conference participants will be presented with a general transport and technological scheme for organizing multimodal transport corridors for the transportation of nuclear materials between Europe and Asia via the territory of Russia.

In particular, it is proposed to use the example of two completed transit shipments: (1) EUP from Europe to the IAEA Bank, Kazakhstan; and (2) EUP from Europe via the Far East to the Republic of Korea, to introduce participants to the main stages of preparatory work, the transportation process and the requirements of national legislation for organizing such shipments (in general), and the benefits of cooperation with Russia in this field.

Currently, Russia consistently continues its course towards establishing mutually beneficial cooperation with countries interested in services for the movement of nuclear materials via the territory of Russia. The use of multimodal corridors via the territory of Russia is the shortest route in terms of distance and optimal in terms of cost and duration of transportation for nuclear materials between Europe and Asia. De facto, Russia, being a transport bridge between the two largest world regions, can ensure seamless transportation of nuclear materials, taking into account the experience of Russian organizations and foreign customers.

Our organization JSC "TENEX TRANSPORT SYSTEMS" is open to international dialogue in the field of organizing transport and logistics services, creating regular multimodal corridors via the territory of Russia when transporting cargo of hazard class 7. We are ready to consider requests and proposals from interested parties.

Thank you.