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## **ENSREG** communication on Ruthenium release

In autumn 2017, small amounts of Ruthenium-106 was widely detected in samples of airborne and deposited radioactivity in Europe<sup>1</sup>. Additional investigations made it possible to provide information on the possible location of the source of the release as well as the order of magnitude of the quantities released.

Based on the meteorological conditions provided by different meteorological institutions and the measurement results available in European countries, several regulators and TSO carried out simulations to locate the release zone, to assess the quantity of ruthenium released, as well as the period and the duration of the release.

The results obtained confirm that the most plausible zone of release lies between the Volga and the Urals as this geographical area makes possible to reproduce the measurements obtained in Europe. However, this has not been possible, with the available data, to specify the exact location of the point of release.

Based on these results, ENSREG took action at the end of 2017 to coordinate the participation of European Members to take part in the "Independent International scientific Commission" set-up by the Russian IBRAE<sup>2</sup>. This commission gathered two times in January and April 2018, but no joint conclusions have been drawn on the source release to date. ENSREG made officially a request to the Russian regulator (with copy IBRAE, in charge of the commission), especially concerning the possibility to carry out measurements on site. This request did not receive a positive answer<sup>3 4 5</sup>.

ENSREG recognizes that cooperative efforts thanks to the international commission have been a good basis for exchanges on this event of Ruthenium releases and await the answers to the open technical questions submitted by four European members in the international commission to IBRAE. However, ENSREG regrets that no joint conclusion was possible and maintains its analysis about the possible geographical source location.

In addition, ENSREG reminds the strong commitment of the parties to the IAEA early notification Convention, not only on a mandatory basis as requested in the article 1 and 2, but also on a voluntary basis when there are no trans-boundary releases of radiological significance. ENSREG promotes proactive sharing of information between the parties using existing platform (USIE) established for communication during both incidents (like in this case) and emergencies.

The importance of transparency in building trust among the various stakeholders involved in nuclear safety and the safe management of spent fuel and radioactive waste is widely acknowledged by the international community and in the European Union; making a step further, the Euratom Community has incorporated in main legal instruments, such as the Directives 2011/70/Euratom, 2013/59/Euratom and 2014/87/Euratom, provisions for transparency and public information arrangements in Member States, pursuing the establishment of transparency culture.

ENSREG Members recognize that in this case the public trust in the nuclear safety system in general may have been undermined due to the fact that the origin of the radioactivity remains still unknown.

<sup>&</sup>lt;sup>1</sup> http://www.ensreg.eu/events-0

<sup>&</sup>lt;sup>2</sup> http://en.ibrae.ac.ru/newstext/911/

http://www.ensreg.eu/document/letter-chairman-rostechnadzor-ru106-22-december-2017

<sup>4</sup> http://www.ensreg.eu/document/information-about-iisc-meeting-ru-106

<sup>&</sup>lt;sup>5</sup> http://www.ensreg.eu/document/letter-chairman-rostechnadzor

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ENSREG declares its adherence to the transparency principle and encourages Member States to fully endorse it, aiming at building trust with the public and interested parties.

Trust and transparency must be based on the full use of such international instruments, as it helps regulators and TSO's learning collectively of events for which cooperative efforts enable us to tackle challenges in nuclear safety and radiation protection, for the benefit of our populations and the environment.

In addition, ENSREG reminds the strong commitment of its members in using the IAEA early notification Convention, not only on a mandatory basis as requested by Article 1 and 2 of the Convention, but also on a voluntary basis when no trans-boundary release of radiological significance occurred.

ENSREG calls upon the IAEA, including in its role as depository to the Convention to ask parties to the Convention, to draw lessons learned from all past and potential events for which information circulation based upon the early notification Convention should have been beneficial for all Parties, especially in cases of any elevated radioactivity of unknown origin in the environment.