

Greenpeace Concerned by Mini Nuclear Plants

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A planned nuclear plant partly funded by Oleg Deripaska would be "accident prone" and at risk of earthquakes, a group of NGOs has warned.

An alliance of groups including Greenpeace and Norwegian environmental monitoring group Bellona warned that the use of lead-bismuth coolant in an experimental reactor planned for Dmitrovgrad in the Ulyanovsk region raised the risk of a buildup of Polonium 210 — the lethal radioactive element made infamous when it was used to kill former KGB agent Alexander Litvinenko in 2006.

"Marine reactors with lead-bismuth coolant are more complex to use compared with water-cooled reactors," Bellona St. Petersburg chief and former nuclear submariner Alexander Nikitin said in comments carried on the Greenpeace Russia web site Tuesday.

"Polonium, which is formed by the irradiation of the bismuth, dramatically increases

the radioactivity of the coolant. That's why even a small depressurization has serious radiological consequences for people and the environment," he added.

Eurosibenergo, part of Deripaska's En+ group, and state nuclear monopoly Rosatom founded a joint venture, Akme-Engineering, to produce lead-bismuth-cooled fast neutron reactors for the international civilian market in December 2009.

They announced a plan to build a 100-megawatt experimental reactor in Dmitrovgrad last year and hope it will be ready by 2019.

If the test plant is a success, Rosatom and En+ hope to produce ready-made nuclear reactors for delivery directly to new power stations around the world — especially in isolated and hard-to-reach regions that cannot easily be connected to existing grids.

En+ has said it would like to corner 10 percent to 15 percent of the global market for small- and medium-sized reactors, citing an IAEA estimate of demand at 500 to 1,000 units until 2040.

Such reactors were used from the late 1960s to the early 1990s on Soviet nuclear submarines, but this will be the first time lead-bismuth coolant is used in the civilian nuclear sector.

En+ and Rosatom have said the technology is proven and safe, and estimate that each unit will cost about as much as a similar-sized coal power station, but with none of the associated emissions.

But Nikitin, a former nuclear submariner, said the technology had caused at least three lethal accidents during its use on submarines.

The claims are made in a report drafted by Greenpeace, Bellona and other organizations ahead of a public consultation on the plant on July 29.

The report added that the region around Dmitrovgrad, which is already home to the Scientific Research Institute for Atomic Reactors, was "seismologically sensitive," and that, if a fault line in the region proves to be active, the site would be illegal under Russian law.

Eurosibenergo did not immediately respond to requests for comment Tuesday evening.

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