

-10 Multipurpose Argentine Research Reactor for Medical Isotope Production

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Argentina is one of the producers of radioisotopes and the construction of RA-10 responds to the increase in global demand. Increased production of radioisotopes could lead to more release of noble gases. This modern reactor is designed as a multipurpose facility suitable for radioisotope production, material and fuel irradiation research and neutron techniques applications. It is planned to increase the weekly production of Mo-99 from 900 6 days-Ci to 3500 6 days-Ci. During the Mo-99 purification process, fission gases containing Xenon-133 and Xenon-135 are released into the atmosphere. The design of the production plant includes the improvement of the engineering and the necessary devices to minimize the emission of noble gases. The International Monitoring System uses fission gases such as Xenon-133 and Xenon-135 to monitor the Earth for signs of a nuclear explosion. The production of medical isotopes is the main contributing factor to the background of radioxenon in the atmosphere and these emissions pose a potential problem for monitoring nuclear tests if not addressed. Technical discussions are needed on the impact of radioisotopes released by civilian sources on monitoring nuclear explosions and how to maintain the detection capability of the International Monitoring System.

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Promotional text

The RA-10 will be at the top of the developments of this type of nuclear reactors, following a line of technological evolution whose immediate reference is the OPAL Project, the most modern reactor for the production of radioisotopes that Argentina built for Australia (2007)

Oral preference format

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