

Emissions from Nuclear Power Plants and Medical Isotope Production Facilities Measured in the STAX Project

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The International Monitoring System (IMS) detects background radionuclides from civilian sources every day. This measurement of the background can interfere with the measurements of radionuclides from nuclear tests. There are methods to discriminate civilian sources with nuclear tests. These include the use of atmospheric transport modelling to determine if the air associated with an IMS measurement is associated with a known civilian source, and the use of multiple radionuclide isotopic ratios to discriminate between nuclear power reactor releases and nuclear tests. The STAX project has been working with both medical isotope production facilities and nuclear power plants, both of whom have voluntarily shared radionuclide emission data. This work will compare real world radionuclide releases and isotopic ratios from two types of nuclear power reactors with the expected ratios from nuclear tests and commercial fission based medical isotope production facilities.

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Promotional text

The issue of radionuclide backgrounds impact on the IMS continues to be of scientific interest. SnT offers a forum to discuss the scientific and technical efforts ongoing in the community to understand and potentially mitigate the impact on the IMS.

Oral preference format

in-person

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