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# of Atmospheric Radioxenon Detections in the UK

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An IMS-like noble gas system is in operation at AWE (Aldermaston, UK) and can collect and measure the radioxenon content in environmental air samples. When operated in this mode, data produced is analysed at the UK National Data Centre (NDC) as part of the in-house radionuclide (RN) analysis pipeline. This work discusses a number of significant detection events analysed using the operational system deployed at the UK NDC, which includes atmospheric transport simulations and a real-time stack-monitoring data feed from a nearby medical isotope production facility in Belgium. A comparison of the expected radionuclide contributions with measured detections is presented, including a comparison of the isotopic ratios for the radioxenon isotopes of interest (Xe-133, Xe-131m, Xe-133m, Xe-135).

Promotional text

Radioxenon detections on an IMS-like SAUNA system operated at GBL15, the UK CTBT Radionuclide Laboratory, have been correlated with a medical isotope production facility in Europe.

Primary authors: Mr GOODWIN, Matthew (AWE Aldermaston, Reading, United Kingdom); Mr DAVIES, Ashley (AWE Aldermaston, Reading, United Kingdom); Mr BRITTON, Richard (CTBTO Preparatory Commission, Vienna, Austria)

Presenter: Mr GOODWIN, Matthew (AWE Aldermaston, Reading, United Kingdom)

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