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Type: **Oral**

Resolution stack data from fission based Mo-99 production

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The Source Term Analysis of Xenon (STAX) project is a new effort to better understand the radioxenon background in the environment. This project is using high resolution stack detectors to directly measure the radioxenon emissions from fission-based Mo-99 production facilities. Currently, two experimental high purity germanium (HPGe) based detector systems reside at the Institute for Radioelements (IRE) in Fleurus Belgium and at the Australian Nuclear Science and Technology Organisation (ANSTO) in Australia, which are two of the large suppliers of worldwide Mo-99 for medical uses. Direct measurement of the four treaty relevant radioxenon isotopes (Xe-131m, Xe-133, Xe-133m and Xe-135) is being measured every fifteen minutes using these HPGe detector systems. A discussion of the detector technology and example data sets will be presented.

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