WHAT’S THE NORM?

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Naturally Occurring Radioactive Material or 'NORM' is ubiquitous on Earth. The main components of this ambient background radiations to which humans are exposed every day of their lives, can be divided into (a) shorter-lived and constantly replenished cosmogenic nuclides such as $^7$Be and $^{14}$C, or (b) very long-lived, primordial species including $^{40}$K, $^{235,238}$U and $^{232}$Th. This talk will discuss the physical origins and decay mechanisms of NORM and demonstrate how high-resolution gamma-ray spectrometry measurements can be used to determine baseline environmental measurements of radioactivity levels and its potential health effects in the environment. Examples of recent studies of NORM measurements by the Surrey group across the State of Qatar [1], along beaches and rivers in Thailand [2,3] and in Libyan oil pipelines [4] will be discussed together with evidence for technically enhanced levels of NORM in specific cases.


All interested persons are cordially invited to attend.