

Stack Monitoring at the BATAN Teknologie (BaTeK) Facility and Implications for the Tracking of Medical Isotope Plumes

With increased interest into the radioxenon emission from radiopharmaceutical production, it has become important to study the best methods to incorporate the data into the IDC analysis of radioxenon stations. A first step is to actually obtain stack monitoring data and then to apply atmospheric modeling and isotopic ratios to best screen out mundane medical isotope signatures from daily radioxenon data sets. As part of this effort, a small stack monitoring system was developed, assembled, and deployed during 2012 by a joint CTBTO/IDC-BATAN-PNNL team at the BaTek medical isotope production facility in Jakarta, Indonesia. This poster will cover the modeling, design and implementation of the air handling component of the BaTeK stack monitor. It will also discuss some screening methods developed so that greater confidence can be assigned to interesting radioxenon signatures vs. the mundane and confounding signatures that medical isotopes produce.

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