



Participants at WOSMIP V

WOSMIP V

The fifth Workshop on Signatures of Medical and Industrial Isotope Production (WOSMIP V) was held in Brussels, Belgium May 12 - 14, 2015.

This workshop featured the largest representation of current and prospective isotope producers at any WOSMIP thus far. Several of these producers announced plans to work toward a radioxenon release goal of less than 5×10^9 Bq/day.

Some highlights from the workshop included the review of current and future medical isotope production technologies; discussions on radioxenon stack release measurements for study of the impact of Medical Isotope Production (MIP) on monitoring; atmospheric transport modeling studies which demonstrated the impact that MIP emissions have on global radioxenon background; and sharing of new research on emission abatement technologies with the community.

Collaboration Opportunity

The Republic of Korea is in the process of developing a compact xenon adsorption system for the new Kijang MIP facility. During WOSMIP V, Dr. Jun Lee requested technical collaborative development of this system. The resulting radioxenon abatement technology from this project will be shared with the community as open source technology. For more information, contact Dr. Jun Lee from the Korea Atomic Energy Research Institute (KAERI) at jlee15@kaeri.re.kr

Stack release data upload experiment

Radioxenon stack releases from Medical Isotope Production (MIP) are known to reduce nuclear explosion monitoring sensitivity. The CTBTO announced at WOSMIP V that it will begin collecting stack release data from MIP facilities on an experimental basis. In conjunction with this announcement, a small working group from the WOSMIP community is being formed to plan a stack release data upload experiment with the goal of demonstrating the feasibility of sending stack release data from a facility to a repository handling the data in a confidential manner and to produce a database in a format compatible with the IT infrastructure of the CTBTO.

More information on WOSMIP V

<http://www.ctbto.org/press-centre/highlights/2015/mitigating-effects-of-xenon-emissions/>

And:

<http://www.nnsa.energy.gov/blog/nnsa-contributes-international-efforts-further-strengthen-detection-nuclear-explosions.>

A video overview of WOSMIP V can be seen at:

<https://www.youtube.com/watch?t=26&v=eRNtpcxaRil>

CRP on Xenon Emissions

The IAEA has announced a Coordinated Research Project (CRP) focused on creative ways to reduce xenon emissions from medical isotope facilities with objectives of:

- *Fostering collaboration between current and future producers of medical radioisotopes.*
- *Determination of internationally accepted targets for select radioactive gaseous emissions.*
- *Produce a summary of factors which affect the emissions.*
- *Determination of methods to reduce emissions to the determined level.*

The first CRP meeting was held 17-21 August 2015 in Vienna, Austria. Further information can be found on the IAEA website: <http://cra.iaea.org/cra/stories/2014-09-15--F23031-Radioisotope-emissions.html>



The WOZZIE was awarded to Emmy Hoffmann at WOSMIP V. From left to right Judah Friese, Emmy Hoffmann, Ted Bowyer, Martin Kalinowski and Paul Saey.

European Union Joint Action 5

The xenon capturing project funded by the European Union Joint Action is being developed by SCK•CEN and will be tested at the Institute for Radioelements in cooperation with the CTBTO. This project will develop a prototype adsorbent system that uses silver zeolite to trap xenon from fission based medical isotope production processing. This system will be small and adaptable to allow current and future facilities to improve emissions. The resulting system and research will be published open source to the community. For more information contact Dr. Johan Camps at the Belgian Nuclear Research Center (SCK•CEN), johan.camps@sckcen.be.

WOZZIE

It has become tradition at WOSMIP to recognize individual and organizational achievements to advance the understanding or to reduce the effects of emissions from medical and industrial isotope production on nuclear explosion monitoring. These awards have become affectionately known as the WOZZIE. This year, Emmy Hoffmann from ANSTO was awarded a WOZZIE *"For Demonstrated Commitment Towards Mitigating the Effects of Emissions from Medical Isotope Production"*, making her the fifth recipient of the award.

Thanks to all who participated.

Your involvement made WOSMIP V a great success.

