

**IAEA's Programme on Development, Testing and Harmonization of  
MODels and DAta for Radiological Impact Assessment  
(MODARIA II)**

**CHAIR'S SUMMARY**  
of the  
**Second MODARIA II Technical Meeting**  
**IAEA Headquarters, Vienna**  
**30 October – 3 November 2017**

The second Technical Meeting of the IAEA's MODARIA II programme was held at IAEA Headquarters in Vienna from 30 October to 3 November 2017, and was organized by the Assessment and Management of Environmental Releases Unit, Waste and Environmental Safety Section of the Division of Radiation Transport and Wastes Safety. One hundred and thirty three experts from technical support organizations, universities, research institutes, regulatory bodies and operating organizations, representing 39 Member States were present at the meeting. It was pleasing to see that the number of participants and their geographical distribution were broadly similar to those who attended the first meeting of MODARIA II in 2016, a sign that this programme continues to generate significant interest amongst experts in the field of environmental modelling throughout the world.

Mr Andrew Orrell, Head of the Waste and Environmental Safety Section, opened the meeting and welcomed the participants to Vienna, remarking once more the important role that environmental models play in predicting the fate of radioactive releases and assessing the radiological impact in the context of regulatory control and thus helping maintain nuclear safety.

Mr Gerhard Proehl, Head of the Assessment and Management of Environmental Releases Unit and overall IAEA Scientific Secretary for the MODARIA II programme, provided a summary of the progress made in the MODARIA II programme and an update on matters related to it. Mr Proehl introduced two new Working Group Scientific Secretaries: Mr Gerard Bruno, Head of the Radioactive Waste and Spent Fuel Management Unit, who will follow Working Group 6 and Ms Andra-Rada Iurian, from the IAEA's Laboratory of Terrestrial Ecosystems, who will be responsible for Working Group 4. Ms Iolanda Osvath, Head of IAEA's Radiometrics Laboratory in Monaco replaced Mr Paul McGinnity as Scientific Secretary for Working Group 7 for this meeting.

This was Mr Proehl's last meeting as Scientific Secretary of MODARIA II, as he retired from the IAEA on 31 October 2017; Mr Diego Telleria, from the Assessment and Management of Environmental Releases Unit, has since taken over responsibility as overall Scientific Secretary for the programme. I would like to put on record my thanks and appreciation for what Mr Proehl has done over the years in his role as Scientific Secretary for the MODARIA and MODARIA II programmes as well as the preceding EMRAS II programme. Mr Proehl has been a first rate scientist in the field of radiation protection and nuclear safety and has made countless invaluable contributions to the advancement of scientific understanding and the development of regulations in these fields. He has been instrumental in the success of the activities of the IAEA in the area of environmental radioactivity and has provided a stable and strategic direction to both the MODARIA and MODARIA II programmes; his influence and acumen will be sorely missed and I wish him well for the future.

In my introductory address to the meeting, I once again highlighted the need for a clear link between the work done during MODARIA II and the IAEA Safety Standards, as the main objective of the programme is to develop tools which can aid the implementation of the radiation protection and safety requirements in the IAEA international standards specifically dealing with exposures to the public and the environment.

I also presented a report that provides a record on the progress made and summarizes the activities of the MODARIA II Working Groups in a single document. I am happy to take the editorial role for this report and to work with the members of the Working Groups and the Scientific Secretaries in order to update the report as MODARIA II progresses. The final aim is to use this report as a basis to produce the final Summary Report at the end of MODARIA II. My hope is that by updating the progress report regularly it will take considerably less effort to produce the final report.

As usual, the main part of the agenda for the first day of the meeting (Monday, 30 October 2018) was taken up by presentations by the Leaders of the 7 Working Groups included in MODARIA II, summarizing progress made over the last year. Working Groups subsequently met and continued to work separately throughout the week. Generally no major issues were raised during these presentations and I was happy that sufficient progress has been made by all groups. I am slightly concerned that the work programmes of one or two groups appear to be rather ambitious and may not be completed within the time frame of MODARIA II, and I believe that priority should be given to some of the topics under consideration. A number of joint meetings between groups were also held during the week; the interactions between different groups seem to be broadly effective too. I will continue to follow closely the work of some of the groups in 2018 and provide any input as required by the Scientific Secretaries.

Three presentations were given on Wednesday, 2 November 2018 during a special plenary session: the first one was on remediation, modelling and decision making activities for U mining and NORM legacy sites in Brazil given by Mr Eduardo Figueira da Silva, CNEN (Brazil); the second one provided an update on the IAEA Safety Guide WS-G-3.1 on “Remediation Process for Areas affected by Past Activities and Accidents” and was given by Ms Tamara Yankovich of the Assessment and Management of Environmental Releases Unit. The third presentation covered the topics of copyrights, permissions and publishing procedures at the IAEA and was given by Ms Nicola Gulley, Head of the Publishing Section in the IAEA Division of Conference and Document Services, and her colleague Ms Katja Haslinger who is Publications Assistant, Quality Control.

The presentation on the IAEA publishing procedures generated a great deal of interest and some concern. The main issue raised by several participants is that some aspects of the process (such as copyrights) may affect the publication of papers in peer reviewed journals. A number of experts involved in MODARIA II – especially those from universities or research institutes – rely on the publication of papers about their contribution to MODARIA II in peer reviewed journals to be able to continue to be involved. It is therefore important to duly recognize the contribution of these experts to the IAEA activities and it is in the interest of both the IAEA and the MODARIA II experts to ensure that they can continue to publish their work in the open literature; at the same time the presentation provided a very useful insight in the mechanisms of the IAEA publication system and helpful warnings of which we need to be mindful when producing our material for publication. I will be happy to act as an intermediary between the IAEA and the MODARIA II participants in order to ensure that publication of the MODARIA II reports and MODARIA II related papers are done and to solve any particular problem that may arise.

During specially organized early morning sessions, three initiation training courses on the use of CROM software tool — provided by Mr Juan Carlos Mora Cañadas from CIEMAT (Spain) — and on the use of the RESRAD-Offsite software tool — provided by Mr Charley Yu from the Argonne National Laboratories (USA) — were conducted. Additionally, a presentation on the “Guided Interactive Statistical Decision Tool” for structured decision making — provided by Mr Paul Black from the Neptune and Company Inc. (USA) — took place on Thursday, 2 November 2017. All of these sessions were well attended by newcomers as well as senior experts and proved to be quite popular. I believe that these sessions fulfil one of the aims of the MODARIA II programme: to provide a platform for the exchange of information and the right level of training for a Technical Meeting. I wholeheartedly encourage the Agency to continue to organize this type of activity during future Technical Meetings.

Finally, a number of participants asked whether the agenda could be modified in order to give more time to the Working Groups to discuss progress as the Technical Meeting represents their best opportunity to work together. Notwithstanding the importance of activities performed during plenary, and discussions held to establish the overall working objectives of the programme, I will hold discussions with the IAEA Secretariat to see if future agendas can be formulated to give the opportunity to WG to use the time spent outside plenary sessions effectively in order to make progress with their work. However, I would suggest that presentations on specific topics as well as training sessions should be included in the agenda of future Technical Meetings as these represent very good learning opportunities for experts from developing countries.

I would like to thank all the participants to the Technical Meeting, the Working Group Leaders, the Scientific Secretaries and in particular Mr Gerhard Proehl, Mr Diego Telleria and the other IAEA members of staff for their help and support during the meeting.

Tiberio Cabianca  
MODARIA II Chair

12 January 2018