Minutes

Meeting on Kd associated with MODARIA WG4

Meeting aims:

1. To brief IAEA, Monaco on the current activities regarding Kd within MODARIA WG4
2. To explore the key issues regarding the current status of compiled Kd values for marine ecosystems and how they can be improved for the user community
3. To discuss the most effective, realistic role that IAEA Monaco can contribute to the MODARIA WG4 activity
4. To discuss the potential for a Kd database to be created and provided to the user community

Initial talks were given by the MODARIA/STAR participants about the Kd activities, current data in TRS 422 and 472, approaches adopted and the current status of the databases on soils and freshwaters. The importance of having databases with good QC, with contributions from the international community which could provide a sustainable source of data into the future for Kd parameters values was emphasized. The potential for analysing the impact of various factors such as particle size, suspended sediment load and porosity were discussed. The importance of time dependency and origin of the radionuclide was also emphasized. The IAEA will archive the three presentations given by P. Boyer, B. Howard and M. Iosjpe.

The IAEA staff showed the participants the MARiS database and outlined their plans to extend and improve the database, and that they wish to promote the use of the database which is of particular value due to the rigorous QC procedures for data entry. There seems to be considerable potential to derive Kd values in situ from the measured suspended/bed sediment and matching water measurements in the database. The MARiS database can be used as a starting point to seed a new Kd database.

The participants discussed how best to approach the large task of initiating a Kd database that encompasses freshwater, terrestrial, marine and brackish environments. There was a general consensus that the task needed to be broken down into these smaller, more manageable subdivisions with the long-term outlook of combining the databases at some point in the future. With this in mind, the databases should share a similar architecture so this task is achievable when the Kd community is ready to merge Kd databases. MARiS contains fields that covers water, sediments and biota so it could act as a good template to help with this effort.

The participants visited the Radioecology laboratories and were able to discuss ongoing Kd experiments with Marc Metian and Jean-Louis Teyssie, as well as other aspects of transfer to organisms. There is clear potential for valuable data on Kd for radioactive elements to be measured in the laboratories under a range of conditions, if possible. Such laboratory data could be compared with Kd values compiled from the environmental measurements.

The programme and objectives of the STAR/MODARIA workshop was discussed, and some suggestions about the content and structure were made. The IAEA were willing to engage with MODARIA WG4 in the activity, but the implementation would depend on available time and resources.
## Action List

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<tr>
<th>Action</th>
<th>Responsible</th>
<th>Deadline</th>
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<tbody>
<tr>
<td>Revise agenda for the Kd workshop</td>
<td>B. Howard</td>
<td>Distribute by 11th April after comments from organising committee</td>
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<tr>
<td>Prepare proposed database format and circulate prior to 5th May visimeet</td>
<td>P. Boyer</td>
<td>By 11th April</td>
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<tr>
<td>Comment on proposed database structure</td>
<td>All</td>
<td>By 1 May</td>
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<tr>
<td>Request N. Fisher to introduce the derivation of Kd values in TRS-422 at the Oslo workshop</td>
<td>B. Howard</td>
<td>By 4 Mar – done and accepted</td>
</tr>
<tr>
<td>Set up P. Morris for access to visimeet for 5th May Oslo preparation meeting</td>
<td>B. Howard</td>
<td>Implement when acceptable email address received (non IAEA)</td>
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Agenda

Marine Kd – MODARIA WG4

Monaco, 27-28th March

Participants: P. Boyer, B. Howard, M. Iosjpe, Paul Morris, H. Nies, I. Osvath

Agenda

Thursday 27th March 13:00 – 17:30: Initial briefings and background

IAEA: introduction to IAEA Monaco and its remit

B Howard: Summary of MODARIA WG4 activities and current status

P. Boyer: the approach taken for freshwater and soils Kd so far

M. Iosjpe: use of Kd in marine modelling and current issues

Friday 28th March 9:00 – 16:00: the way forward

P. Morris: Current status re work on Kd for marine ecosystems from IAEA’s Environment Laboratories Radiometrics Section’s perspective

Visit to Radioecology Laboratory

All: Discussion of key issues and how they can be addressed

- Including consideration of strengths and weaknesses of current Kd compilation in TRS 422

All: Discussion re potential activities for marine Kd

B. Howard: Plans for Oslo workshop