The 4th meeting of the Radiological Protection Advisory Committee (RPAC) was held on Wednesday 1st March 2017 at the EPA Office of Radiological Protection, Clonskeagh Square, Clonskeagh, Dublin 14

Members present:	Micheál Lehane (Chair), Darren Arkins, Anthony Bexon, Sean Curran, Ray Ellard, Maurice Fitzgerald, Jean-Luc Godet (by VC), Fiona Lyng, Mary O'Mahony, Peter Mitchell, Michael Rowan,
In attendance:	David Fenton, Tanya Kenny, Ciara McMahon
Apologies:	Paul Dorfmann, Michael Sadlier
Scientific Secretary:	Alison Dowdall/ Stephanie Long

1. Introductory remarks and welcome

The Chairperson welcomed all to the EPA for the 4th meeting of the committee. He informed the group that since the last meeting the new Office of Radiation Protection and Environmental Monitoring (ORM) had been established amalgamating the EPA monitoring laboratories into one Office, thus consolidating laboratory activities within the EPA.

On the National Radon Control Strategy, it was noted there has been ongoing collaboration with the Law Society of Ireland and that three questions on radon are now included in the conveyancing process. These questions are:

(a) Has a radon test been carried out?
(b) If a radon test has been carried out, please supply the report.
(c) Has any action to reduce radon levels been undertaken?

Research to establish the current population weighted average indoor radon concentration is currently being carried out. This figure will be used to establish the number of lung cancer cased in Ireland attributable to radon.

The Chairperson also informed the meeting that primary legislation regarding the transfer of the remaining radiological protection functions to the Department of Communication, Climate Change and Environment (DCCAE) is due to be in place by the summer.

2. Minutes of 3rd meeting and matters arising

The minutes of the third meeting were agreed and there were no matters arising.

3. Update on Transposition of the Basic Safety Standards

Dr Ciara McMahon, Programme Manager, Radiation & Nuclear Safety presented on the work towards transposition of the Basic Safety Standards Directive to date.

This item generated a number of questions and comments including:

- What the risk versus benefit analysis includes. For example, does the risk of illegal drugs getting into the public domain justify the dose that would be received by suspected drug smugglers?
- Where the responsibility for ensuring professional competence lies?
- Where the role of the Medical Physics Expert (MPE) fits?
- What the differences are between the Euratom BSS and the International BSS (published by the IAEA)?
- Whether a consensus has been reached regarding monitoring of doses for the lens of the eye?
- Whether a communications strategy has been considered?
- How will reference levels be established?

Dr McMahon clarified that assessments of justification that consider radiological and socio-economic risks and benefits have been carried out.

Regarding the role of the Radiation Protection Advisor (RPA) assessing and ensuring professional competence lies with the EPA. For practitioners and prescribers, it is the Medical and Dental Councils, while HIQA will have responsibility for patient safety from 2018. The Department of Health are liaising with the Medical and Dental Council and other stakeholders regarding these roles.

Dr McMahon clarified that the role of the Medical Physics Expert (MPE) comes under the Department of Health's legislation as this role covers patient protection. The role of the RPA covers advice to licensees on occupational and public exposure. Since these are two separate roles, the legislation will require recognition of both roles. In practice both these roles may be carried out by the same person, particularly where the pool of resources is small. The existing RPA register is operated by EPA and a similar register may be put in place for MPEs (operated by HIQA or CORU, for example).

Dr McMahon explained that while the dose limits in the BSS and IAEA recommendations are the same, the EU interprets the IAEA recommendations through the EU BSS. The BSS is more stringent in some areas and is enforceable in EU states.

There was discussion regarding the dose to the lens of the eye and the difficulty in assessing this dose. This issue is discussed at different fora including the National Radiation Safety Committee and at the Heads of European Radiological Protection Competent Authorities (HERCA) with no consensus reached yet on how compliance with the dose limit will be demonstrated. One approach suggested was to review what has

been done in the UK and other EU countries. It was noted that the dose received is dependent on the practitioner's equipment and on their operating technique. The importance of the use of PPE was noted, as where this is used correctly, it is unlikely that the dose limits will be exceeded. There was a query asking whether the HSA are aware of any similar situations where a limit is exceeded. Mr Darren Arkins replied that no similar situations have been found by the HSA where the limit value is difficult to achieve (or permitted not to be met). Experience suggests that the legal limits are technically achievable by the use of various measures which can include limiting worker exposure and the proper use of PPE.

It was noted that the introduction of the new legislation will give rise to a significant number of changes and will require a communication strategy. Many of the changes have been flagged with the relevant organisations during the consultation process and through steering groups working on the transposition. Guidance will be crucial and will be developed at the same time as the legislation is put in place. RPAs will also be used to communicate the changes. It was noted that one of the tasks included in the graded authorisation project is to put in place a communications plan.

The group also discussed the integration of radiation protection into patient safety which will come under the remit of HIQA. Expertise in the area of radiation protection will be required to fulfil this role. Ms. Tanya Kenny pointed out that the regulatory experience is in place with HIQA but that radiation protection expertise needs to be added. The DoH is meeting with stakeholders to identify the issues that need to be addressed.

Reference Levels for existing and emergency exposure situations will be required in the new legislation. The legislation is likely to state that the EPA will establish Reference Levels. This will be done in consultation with the relevant bodies and it is likely that they will be published in guidance documents which will allow for any future adaptations, rather than establishing them in the legislation itself.

3. Radon in Workplaces

Mr David Fenton, Manager, Measurement Services and Non-Ionising Radiation gave a presentation outlining the requirements for radon in workplaces under the BSS. There was some discussion regarding the change in the Reference Level for radon in workplaces from the current 400 Bq/m^3 to 300 Bq/m^3 as set out in the BSS. There was a query regarding whether there would be a lead in period for workplaces to adopt this Reference Level. Mr Fenton said he expected that any workplaces that had measured between 300 and 400 Bq/m^3 would re-measure. The results could then be compared with the new Reference Level. Under Article 54, employers are required to carry out radon testing in High Radon Areas (HRAs). Therefore, the change in Reference Level needs to be communicated with employers in HRAs. The HSA already include radon in their inspections and it is also included in their BeSmart tool where the Reference Level

can be amended. The reduction in the Reference Level may lead to an increase in demand for Radon Measurement Services.

There was an enquiry regarding the number of workplaces that will be impacted by the reduction in Reference Level. The national schools testing programme was referred to where 9% of schools tested were found to have radon levels greater than 400 Bq/m^3. This was followed by a query asking how many workplaces would be likely to exceed the 6 mSv dose and it was noted that there are less than 10 underground workplaces where this is likely to be an issue. Related to this, there was a query regarding what the requirements would be where the 6 mSv dose limit is exceeded. Mr Fenton replied that there are 18 articles that set out these requirements but most won't lend themselves to radon. In these workplaces, on-going monitoring will be carried out as well as individual dosimetry monitoring to assess the dose based on exposure.

4. Education and Training Requirements and Arrangements in the Context of the Basic Safety Standards.

Ms. Tanya Kenny, Manager, Radiation Protection Regulation gave a presentation on the education and training requirements under the BSS. The presentation sought advice from the committee on meeting these requirements and a discussion ensued on training requirements, courses and models across other sectors.

Medical and dental schools will be encouraged to introduce a course on radiation protection in their basic curricula. Currently radiation protection training is not provided through dentistry courses; nor through post-graduate courses. The DoH are discussing this issue with the Irish Dental Council and it was noted that the European syllabus has specific requirements. However, at present there is no capacity for the Dental Council to provide training.

Training for the RPA role was discussed - this is mainly achieved through on-the job-experience and mentoring by existing RPAs. A radiation protection training course is available in University College Galway. However, it was pointed out that more structure is required with regard to the training requirements. It was noted that the FSAI set out the skill sets that must be met by a training course, rather than approving individual courses. The framework for this process will be shared by the FSAI.

Training requirements for the HSA were also discussed where certification schemes are carried out under the QQI framework and in many cases mandatory training is required. The HSA have begun moving training to eLearning. It was also pointed out that education, training and experience should be acknowledged. With regard to asbestos training, in the absence of a formal training course in Ireland, a course in the UK is used. While this is based on the UK legislative requirements, the emphasis is on technical knowledge. Safepass training for medical facilities were also discussed and it was noted that the transient nature of staff between sites can be an issue. This may be a reason for the low level of compliance in radiation protection training. Overall, it was agreed that

there are many different ways that training can be provided and that a flexible approach should be taken allowing different sectors to approach this requirement in different ways.

Embedding training in undergraduate and post graduate courses would ensure that training is received at least once. It is also important to include radiation protection on curricula to ensure that it is understood to be a serious issue. An appropriate frequency for refresher training also needs to be established. It was suggested that a 5 year frequency would be appropriate, given that basic life support refresher training is required ever 2 years. Depending on the worker's role, different levels of training are required starting at a basic level.

The Medical Council currently hold a database of medical practitioners that have attended radiation protection training, The DoH are liaising with the Medical Council where this information is required, however, there are no resources at present to manage this.

Darren Arkins noted that at the last inter departmental meeting, training was discussed. The HSA are to contact Paul Shortt (DCCAE) before the 9th March to discuss the HSA experience of providing training through e-learning.

5. Topics covered during RPAC meetings

It was agreed that a list of topics to be discussed at future RPAC meetings will be put on the file share. Members can suggest topics to the secretariat. The chairperson informed the group that Stephanie Long has stepped down from this role and is being replaced by Alison Dowdall. He thanked Stephanie Long for her contribution to the work of the committee.

6. Date of next meeting

The next meeting will be held on Wednesday 20th September 2017