Minutes of the 44th IRMF Meeting
28 November 2012
National Physical Laboratory

Present:

Chair:	Clare Lee	National Physical Laboratory
Secretary:	Lynsey Keightley	National Physical Laboratory

Attendees:

Jamie Adams	Centronic Ltd
David Anderson-Dixon	Thermo Fisher Scientific
David Anstee	Canberra UK Ltd
Duncan Aston	High Technology Sources Ltd
Jen Barnes	AMEC
Tony Bates	GEMINI TECHNOLOGY LTD
John Bennett	Dstl
Simon Betts	AWE Plc
Raj Bhanot	Springfields Fuel Ltd
Reg Bosley	Nuvia Ltd
Peter Burgess	Nuvia Ltd
Ludovic Chevallereau	Serco
Bill Croydon	BAE Systems (Submarine)
Paul Deacon-Smith	Guy's & St. Thomas' NHS Foundation Trust
Kevin Dean	Sellafield
Denise Delahunty	RRPPS
Tony Dix	Babcock
Caroline Felgate	National Physical Laboratory
David Fletcher	AWE
James Forde-Johnston	Canberra UK Ltd
Andrew French	Dstl
David Gallacher	Guy's & St. Thomas' NHS Foundation Trust
Andy Galpin	Nuvia Ltd
Chris Gilligan	National Physical Laboratory
Chris Hill	Nuvia Limited
Michael Hodgson	University of Surrey
Steve Judge	National Physical Laboratory
Tim Lee	Southern Scientific
Jonathon Littleford	AWE Plc
Shaun Marriott	BAE Systems (Submarine)
Duncan McClure	HPA
Jan McClure	HPA
Ray McConnell	Babcock International Nuclear
Robert McKeag	Centronic Ltd
Kostas Michael	Royal Free Hospital
Aristide Mooyaart	BAE Systems (Submarine)
Ross Morgan	Imperial College London
Bob Newiss	Nuvia Ltd
Steve Newton	Babcock Nuclear Ltd
Trevor Nicholls	Southern Scientific

James Parkin	Lab Impex Systems Ltd
Tom Partington	Tracerco
David Payne	HPA
Richard Price	Dstl
John Simpson	Consultant
Jeff Slade	AWE
Bill Snooks	Pycko Scientific Ltd
Simon Threadingham	Dstl
Charlotte Tye	HPA
Mike Walker	James Fisher Nuclear Ltd
Eliot Williams	Sellafield Ltd
David Williams	Magnox
Mike Woods	IRMC

On behalf of NPL, Clare Lee welcomed delegates to the forty-fourth meeting of the IRMF. Delegates were happy with the minutes from the previous meeting.

44.1 Progress on Good Practice Guides

44.1.1 GPG34

Lynsey Keightley (NPL) announced that GPG34 had been published and was available to download from the NPL website. A few paper copies where available if any delegates wished to have one.

44.1.2 GPG14, GPG29 and GPG30

Clare Lee (NPL) explained that progress on the good practice guides had been held up due to a number of issues whilst she had been on maternity leave. Clare hoped that after a final edit they would be published in the near future.

44.2 ISO TC 85 WG17 "Radioactivity measurement" Draft standards

Tony Richards (consultant) described the status of relevant standards under working group 17. A discussion continued regarding the issues with ISO 8769. The demand on manufactures to produce sources with the uniformity described in the current document was difficult to meet and the document needed revision again. Anyone requiring a copy of the latest draft should contact Tony. Clare informed delegates that GPG14 would not encourage readers to purchase new sources to conform to the current ISO 8769.

Denise Delahunty (RRPPS) had recently received 2 new calibration sources from Eurostandard in the Czech Republic at a very reasonable price. RRPPS had previously purchased sources from a German Manufacturer but found that the cost had gone up by more than 50 %.
To ensure the correct amount of stainless steel filter was fitted, this was supplied by RRPPS and secured in place at Eurostandard. The Co-57 & Fe-55 large area (10 x 10cm active area) sources were sent to AWE for a UK calibration and uniformity checks. The UK traceable surface emission rates differed from the CZ values by around 20% (Co-57) and 10% (Fe-55). For more information contact Denise.

44.3 ISO 8769 Update

Steven Judge (NPL) explained how the knowledge of the uniformity of the emission from a calibration source is important for the UK users as some laboratories use large area sources to test small area probes. After the disagreements following the release of the 2010 updated version of the standard it was decided it should be drafted again. For a full copy of the new proposed standard contact Steve.

44.4 Environmental Impact following Fukushima

Steven Judge (NPL) had spent time working in Fukushima in the aftermath of the earthquake and nuclear disaster that followed. He described the devastation, levels of contamination and the difficulties that arose when trying to communicate radiation matters with the general population. The difference between dose and dose rate, the small quantity Bq with the large quantity Sv, and the concept 'minimum detectable activity'. There was a large distrust of the data available from the government throughout the population.

44.5 A simplified method of assessing emission rate uniformity of wide area calibration reference sources

Samantha Brown (Dstl) gave an overview of her MSc report on a simplified method of assessing the emission rate uniformity of wide area calibration reference sources.

44.6 Update on the NICOP

Victoria Hatt (Springfield Fuels Ltd) gave an update on the current revision to the nuclear industry code of practice. The previous issue had been rewritten to reflect revised legislation relating to the clearance and exemption of wastes and materials. The new guide would be published and available on the web in December 2012.

44.7 Emergency Monitoring in a Post-Fukushima World

Ingeborg Hohe-Dorst (Saphymo) gave a detailed presentation on the Saphymo wireless monitoring system. She decribed how the technology is well suited for emergency response, particularly after the unfortunate events in Fukushima last year. The detectors are currently being used by EDF in France, the Environmental Protection Agency in Germany and USA, the Ministry of Health in Russia and by many more governments and nuclear sites around the World. They are distributed in the UK by Southern Scientific, for more information contact Tim Lee.

44.8 Developments in CZT based gamma detection

Alex Pym (Kromek) described how Kromek has worked on producing a CZT detector system that has the advange of a high resolution and short warm up time. Although CZT was difficult to work with material improvements have enabled detectors to be put in production. Currently the detectors were being tested with mixed nuclides. Keith Simmons (Dstl) requested a copy of the report on the work when complete.

44.9 Maximum Missable Activity

David Williams (Magnox) gave a short overview of his interpretation of maximum missable activity which is defined in the revised NICOP

44.10 How bright is the sun? Now we know!

Pete Burgess (Nuvia) described a light leak test using a variety of scintillation probes that had been carried out by a student (Liam Vormawah, Canberra UK Ltd). The probes were taken outside in full summer sun at noon and the high voltage level adjusted to generate 25 cps. The probes were then tested in a similar manner against 500 W and 200 W security lights and a collection of lights in the Canberra building at Harwell. He found that 2 cm with a 200 W unit or 12 cm with a 500 W unit was a robust test.

44.11 AOB

Clare Lee (NPL) informed delegates that there would be no IRMF held in May 2013. In June 2013 it would be the 100 year anniversary of the UK's first radioactivity standard certificated by Curie, Rutherford and Meyer. To celebrate the event NPL would be holding a larger event on the 3rd and 4th of June, combining the user forums, with some invited speakers and a conference dinner.