

University of Dundee

RADIATION SAFETY SUB-COMMITTEE

A meeting of the Radiation Safety Sub-Committee was held at 10am on 16th May 2006 in River Room 3, Floor 9, Tower Building.

Present: Dr David Hewick (DH) [University Radiation Protection Adviser & Convener]
Ms Lisa Grayson (LG) [Minutes]
Mr Damian Leddy (DL)
Mr Martin Rollo (MR)
Ms Julie Smyth (JS)
Prof Brian Eddy (BE)
Ms Sheila Sharp (SS)
Dr Peter Taylor (PMT)
Ms Allison Bridges (AB)

Apologies were received from Ms Aileen McLaren (AM), Dr David Sutton (DS), Dr Bob MacKintosh (BM).

MINUTES

1. Minutes of the meeting on 6th December 2005/Matters Arising

The Minutes were approved.

Matters Arising:

All matters arising from the previous minutes were covered under the agenda.

2. New Items for the Agenda

Proposed point-scoring system for SEPA inspections – see item 9b.

3. Composition of the Committee

No change since last meeting.

PMT to step down after this meeting.

BE to step down once BSI personnel relocate to MSI. BE to inform DH once move date is known.

DH asked if Life Sciences could nominate a member of research/academic staff to replace PMT/BE.

LG to look into this.

4. MRC Unit

a) AB informed the Committee that one group in the MRC Unit is to start work with ²²Na and ⁸⁶Rb. MR and DH have been consulted and the necessary paperwork and control measures are in place.

b) MR is due to carry out a mock SEPA inspection in the MRC Unit in the near future.

5. Medical School

a) The report prepared by JS (Appendix A) is attached. JS did not have copies available for distribution at the meeting but gave a verbal account of the key points.

b) JS also gave an update on the status of the Clinical Research Centre project and confirmed that,

from the radiation protection perspective, the building design had been completed. The CRC will house a PET/CT scanner, MRI scanner and “hot” pharmacy. A feasibility study is being carried out to determine whether the Cyclotron will be sited in Medical Physics or the CRC. There was some discussion about staffing levels and SEPA’s future involvement.

6. Main Campus

a) Single-Site Licence

DH is still awaiting feedback from SEPA on the Single-Site Licence application. In the mean time, significant savings continue to be made.

b) James Black Centre (JBC), New Stores

Work has yet to begin on the new radioactive waste store in the JBC basement.

c) Laser Inspection

The Health and Safety Executive carried out a laser safety inspection on the main campus on Monday 12th December. A number of recommendations for improvement were made in the inspection report and these are being addressed by DH and DL. The main priorities are (1) to improve training for Unit Laser Supervisors and end users and (2) to produce more comprehensive risk assessments. DH and DL have acquired two software applications to help achieve these aims: *Lasersafe* and *Limits*. *Lasersafe* is a risk assessment tool, recommended by the HSE Inspector, and *Limits* is a laser safety training package, recommended by the American, European and British Laser Associations. DL demonstrated the key features of these applications. The Committee members agreed that both were very useful. In addition to this, DL attended a “Management of Laser Safety” course in February and a workshop for Unit Laser Supervisors was held on the 5th of April.

SS requested that the new software material be made available to Medical School staff as well. DH indicated that this material was not currently available and that training was the responsibility of Medical Physics. SS felt strongly that the Medical School should have access to the same training and resources as the Main Campus departments. There was some debate about who was responsible for laser safety training at the Medical School. DH and MR were under the impression that Medical Physics were taking care of laser safety training in the Medical School. JS felt that although Medical Physics could provide rudimentary training it would not be of the standard provided by *Limits*. Ms Smyth recommended that the training of unit laser supervisors be delivered via external courses and stated that the actual number of staff requiring laser training was very small. She suggested that training programs developed for the Main Campus should be extended to the Medical School to avoid duplication of effort. SS insisted that Safety Services include the Medical School in any laser safety initiatives from now on and said the School would be willing to buy its own copy of the *Limits* training package, if necessary.

7. Waste Disposal

a) Sealed Source Disposal Programme

The redundant Radium-226 sources have been removed from the Main Campus and the Medical School at the subsidised cost.

b) Costs

The annual comparative waste disposal costs for the Main Campus and the Medical School are shown in Appendix B.

8. RPS Matters

a) New Appointments

Louise McGreavey is now RPS for the Mezzanine Floor of JBC.

Brain Weryk is now RPS for Floor 1 of JBC.

Karen Bollan is now Deputy RPS for Pathology and Neurosciences.

b) Training

SS raised concern over the lack of training for RPSs and their Deputies and the withdrawal of the formal letter of appointment. DH was of the opinion that the current training regime was adequate providing those taking on the role of RPS had the relevant experience and knowledge. LG explained that, within Life Sciences, it was not always possible to appoint people with the desired level of experience/prior knowledge and, therefore, in some cases, more training is undoubtedly required. LG also pointed out that external courses were of limited value and that in-house training, specific to our environment, was far more beneficial. MR noted that he and LG had given some RPS training in the past that was very well received. There was further debate about what type of training is required and whether it should be provided by an external body or in-house. MR acknowledged that the requests for additional RPS training could not be ignored. DH asked for suggestions on what topics should be covered. With regard to the RPS formal letter of appointment, DH informed the Committee that this was withdrawn at Kirsten Paterson's suggestion.

9. Additional Agenda Items

a) Transfer of Radioactive Material Between Sites

LG asked for clarification on the procedure for transferring radioactive material to Ninewells. DH explained that a transport document, signed by the RPA, is required and that the recipient's RPS must be informed. LG felt that the current Life Sciences guidance did not make this clear and acknowledged that it would have to be changed. DH pointed out that the current Safety Services' COP clearly states the requirements. LG to amend Life Sciences' transfer forms and ensure RPSs are aware for the correct procedure.

b) Operator Performance Assessments

DL gave a short presentation on SEPA's Operator Performance Assessment system, a points scoring system to be employed during future inspections. The timeframe for implementing this system is not known at present. AB asked if this system could be applied during internal audits/inspections. MR and DL said they would investigate this possibility.

10. Date of Next Meeting

The next meeting of this Committee will be held in the same venue, if possible, on Tuesday 5th December at 10am.

APPENDIX A

UNIVERSITY OF DUNDEE RADIATION SAFETY SUBCOMMITTEE MAY 2006 UPDATE ON RADIATION PROTECTION IN MEDICAL SCHOOL

UNSEALED SOURCES

SEPA Inspections

No SEPA inspections have been carried out since last meeting (December 2005).

Internal Audits

University departments were audited in February 2006 by Radiation Physics under Ionising Radiation Regulations 1999 and Radioactive Substances Act 1993. Summary reports and recommendations were made. No major non-compliances were found and in general, improvements have been seen since previous audit.

Change to Working Practices in Maternal & Child Health Sciences

Radioisotope usage in MaCHS is in the process of becoming centralised. Groups no longer have individual RADNUCs. Majority of radioactive work, including all storage, dispensing & waste disposal, is now performed in main communal lab under department RADNUC. Other work, involving small amounts of radioisotope & specialised equipment in communal laboratories, is registered through restricted RADNUCs.

Existing centralised departments in the Medical School are Biomedical Research Centre and Surgery & Molecular Oncology.

Radioactive Waste Disposal

Sterile Technologies Group (STG) took over as radioactive waste disposal contractors for NHS Tayside in January 2006. There is no change to the Medical School users in terms of their solid & scintillation waste management.

Staff Training

Since last meeting in December 2005:

(i) Radioisotope Users Course has been held once in Medical School with a total of 6 attendees.

(ii) Induction talk has been given on 7 occasions to 15 staff.

(iii) Radiation safety tutorial has been given to 1 staff who have not had adequate training or experience. This allows them to work under supervision prior to attending RIUC.

Routine Duties

Includes monthly waste returns, RPS monthly meetings, contamination monitor calibrations and monitoring of staff.

Registration of Staff Using Unsealed Sources

There are currently 120 staff on Medical School RADPER database.

Staff Doses

During 2005 there were a total of 7 staff issued with whole body monitors and 36 staff issued with extremity monitors. Recorded doses are below the dose constraints of 6 mSv (whole body) and 150 mSv (extremity) for radiation (non-classified) workers. There were no reported cases of overexposure.

SEALED SOURCES

Surplus Radioactive Sources

Government has provided funding for a UK wide program for disposal of surplus radioactive sources. The program is being managed through Environment Agency in association with SEPA. University of Dundee application is being co-ordinated through Safety Services.

As part of this program, two 370 kBq Radium-226 LSC sources were uplifted by Safety Services on 20/02/06 for disposal through ACB.

There are currently no surplus radioactive sources at the Medical School.

Instrument Sources

A new liquid scintillation counter was purchased by Pathology & Neuroscience. The LSC contains an internal source [Caesium-137 1.1 MBq] and two external standards [H-3 & C-14, each ~1.6 kBq].

As these sources fall under the Radioactive Substances (Testing Instruments) Exemption Order 1985, the inventory was updated.

SEPA have stated that they do not wish to be sent copies of the inventory but an up to date version should be made available to them on request.

NON-IONISING RADIATION

Inventory for Non-Ionising Sources

Inventory of non-ionising sources has been updated. There are no additional medium or high hazard sources.

Risk Assessments for Non-Ionising Sources

No change to program- all identified medium & high hazard sources have been assessed, only low hazard sources remain.

X-RAY SOURCES

X-ray Irradiator in Medical School Resource Centre

Physical calibration of the unit has been completed by Radiotherapy Physics and the biological calibration conducted by Sally Lorimor is now underway.

Once both calibration phases have been completed & verified, x-ray irradiator will be put into routine use.

Julie Smyth
Radiation Physicist
12/05/06

APPENDIX B

Annual Campus/Ninewells Radioactive Waste Disposal Costs

Campus [calendar year]		Ninewells [financial year]	
Year	Cost [£]	Year	Cost [£]
2002	20,508		
2003	12,684	2002/3	20,961
2004	12,122	2003/4	22,547
2005	6,399*	2004/5	20,250

*A disposal bill for Dec 05 has still not been received