Safeguard sources

Safeguard your sources. Two recent incidents emphasise the necessity for schools to be very careful about how they look after their radioactive sources. The Ionising Radiations Regulations 1999, made under the Health and Safety at Work etc, Act, place quite onerous requirements on employers whose staff use radiation, even for the relatively low level sources used by schools. There are also restrictions under the Radioactive Substances Act 1993, which is policed by the Environment Agency.

In one case, during refurbishment of the laboratories in an independent school, the sources were being temporarily stored in the boiler room. The head of department had advised the senior management that this was not a suitable place for the sources to be kept, but his advice was disregarded. Sometime later, it was discovered that the sources had disappeared. The Health and Safety Executive prosecuted the school for the loss of the sources, but made it quite clear in court that no blame attached to the head of department who had acted quite properly. The school was fined £1,500, with a further £2,000 costs.

In the second case, a post-l6 college was closing down one of its sites and sold the contents at an auction. The successful bidder — a local cafe owner —wanted only some of the furniture, but the auctioneers insisted it was all or nothing. When the new owner came to collect their purchases, the technician did question whether it was right that they were taking the radioactive cupboard as well, but take it they did. A little while later, the college safety officer realised that there might be a problem, but was not sure because the only list of sources was locked in the cupboard which had, by now, been taken away. At the time, the college did not have a Radiation Protection Adviser. Before incorporation, the LEA had provided this service, but such arrangements had long been in abeyance. When the safety officer tried to find out what had happened to the sources, the auctioneers were less than helpful, claiming professional secrecy. It was only when the Environment Agency became involved that the sources were tracked down and, eventually, returned. At the time of writing, it is not yet clear whether either the HSE or the Environment Agency, or both, will take action against the college.

There are several lessons to learn from these two cases:

Every establishment needs to have somebody in charge of its radioactive sources, to actively manage them. This person is usually called the Radiation Protection Supervisor (RPS). It is best if this is the head of department or somebody else in a position to enforce the rules.

In addition, every employer needs to appoint a Radiation Protection Adviser (RPA). As a result of much more stringent requirements for qualifications and experience after 2004, RPAs will normally be outside consultants. For community and voluntary controlled schools the LEA, as employer, is responsible for appointing the RPA. For foundation, voluntary aided and most independent schools and colleges, the responsibility lies with the governors (or, for some independent schools, the proprietor or the trust).

Establishments should keep clear records of the sources held, their history, etc. and these records should be kept separate from the sources themselves.

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Each establishment should have clear Local Rules for the use of sources. The rules need to be approved by the RPA.

The RPS should maintain the paperwork, monitor that the Local Rules are being implemented, check the sources from time to time and test them for leakage.

Where health and safety problems (whether about radioactives or other matters) arise in a science department, the staff in that department, and especially heads of departments, should take such steps within their power to deal with the problems. Where it is beyond their powers, line managers/ employers should be informed and be given sufficient information so they can understand the seriousness of the problem. Where appropriate, this should be put in writing, and a copy should be kept.

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