

# Don't throw away your radioactive sources!

■ Charles Tracy ■ Elizabeth Cunningham

This article relates mainly to schools in England that have changed status to an academy and have lost their Local Authority RPA service. In Scotland, SSERC provides the RPA service. In Scotland, Wales and Northern Ireland, there is no equivalent to the English academy school.

This article is a plea to do all that you can to hang on to your radioactive sources. We have been contacted by some schools that are reluctantly seeking to dispose of their radioactive sources. They have been forced to do so because of the apparently unavoidable increase in the cost of accessing a Radiation Protection Adviser (RPA) – a requirement of all radiation employers. In each case, by shopping around, they have found a cheaper route to an RPA. In short, we recommend contacting CLEAPSS – the advisory service for schools. They will be able to put you in contact with at least one Radiation Protection Officer (RPO) who can act as your link to a CLEAPSS Radiation Protection Adviser (RPA).

The best source of advice about anything to do with safety in schools is CLEAPSS, a local government organisation that works in the interests of schools, science and safety. We are

relying heavily on their expertise to write this article. In 1999, the regulations about using and storing radioactive sources changed. It became a requirement for any employer holding sources (above a certain level) to appoint a Radiation Protection Adviser (RPA) with a qualification recognised by the Health and Safety Executive (HSE). Before 1999, a science adviser could act as the RPA to schools. Given the likely costs to schools, CLEAPSS set up a team of 16 qualified RPAs. Schools could access these RPAs through a network of Radiation Protection Officers (RPOs), who were based in Local Authorities (LAs).

Recent changes in schools and LAs have meant that some LAs no longer have an RPO. In some cases, they have stopped offering a service altogether and, in others, they are using a private contractor as their RPA. This tends to be more expensive.

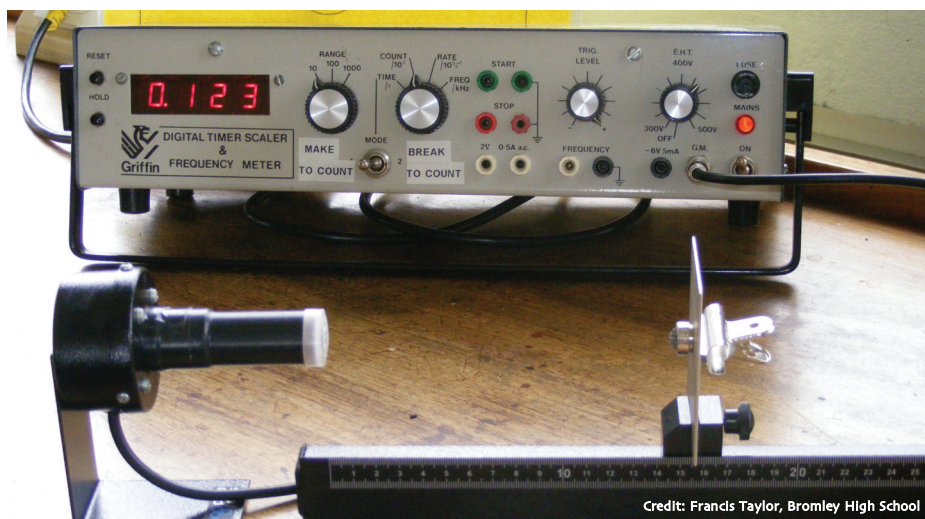
We have found that science departments have been given information that is confusing and often misleading – either by their LA, a private RPA or a risk management company. The legislation means that schools are required to appoint a qualified RPA. This has been the case since 1999. The changes to schools and LAs may appear

to mean the loss of a link with an RPO; some may even feel that they are not entitled to use the CLEAPSS RPA service. However, this is not the case. Whether an academy, a free school, a college or an LA school, that service is still available. Schools may need to contact a few LAs before they find an RPO at a price that they can manage, but it is likely to be worth the effort and CLEAPSS can provide contacts.

Finally, if you need to make a case to a senior leader, here are some thoughts:

- There is no substitute for demonstrating real physical phenomena (simulations and animations help, but are no replacement for seeing things happen in the real world).
- If practical work disappears from the radioactivity topic (because of cost), what message does that send about the importance of practical work in general?
- If schools do not use real sources, this sends a message that radioactivity is inherently unsafe – it is too hazardous to use even low-level sources in school. What are the implications of this for public awareness at a time when the need for a new generation of nuclear-generating capacity is being discussed?
- There is a disposal cost (it is not the case that you can dispose of all sources by putting them in a container filled with mortar and adding this to the normal refuse).
- The cost of replacement is very high, so reversing any decision is expensive.

Equipment used in classroom experiments to investigate radioactivity.



Credit: Francis Taylor, Bromley High School

For more information or to share your experience of obtaining a low-cost service, please visit the discussion group on talkphysics at [www.talkphysics.org/groups/4589](http://www.talkphysics.org/groups/4589)

**Charles Tracy** is Head of Education, Pre-19, at the Institute of Physics and Elizabeth Cunningham is Particle and Nuclear Outreach Officer at the Science and Technology Facilities Council (STFC).