A teacher's guide to the Explosives Regulations 2014

This guide highlights the main points from the Explosives Regulations 2014 for science teachers.

In response to these regulations the Royal Society of Chemistry has worked with CLEAPSS to update our Practical Chemistry collection on Learn Chemistry. When appropriate we have changed our class practicals so that no explosive certificates are required by the school when conducting our experiments.

If in doubt when planning any class practicals for your school, consult CLEAPSS or SSERC (in Scotland) for advice on this issue.

CLEAPSS have provided more detailed guidance on the Explosives Regulations 2014 in their PS 81 Fireworks and other Explosive document.

Legal issues

Under the Health and Safety at Work Act and some of its regulations (eg, COSHH) the employer has been required to carry out a suitable and sufficient risk assessment before any hazardous activity is undertaken. That has not changed.

The manufacture and storage of explosives has been closely controlled since 1875. The main purpose of the Explosives Regulations 2014 was to consolidate and clarify existing legislation.

Teachers, making small amounts of explosives for school experiments, may not have appreciated that the legislation applies to them.

Consider the education benefit to the activity before carrying out a practical.

Explosive reactions are exciting and they can be used to illustrate several key concepts in chemistry – enthalpy changes, rates of reaction and redox reactions are just a few examples.

It is easy to replicate experiments observed around us via any media. When considering an activity for your school it is advisable to first consider if it has an educational benefit. Once satisfied, check the activity comes from a reputable provider with consideration for Health and Safety in a school environment, before working up your own suitable risk assessment.

Implications for School Science

Some activities that schools have traditionally carried out will be subject to the Explosive Regulations 2014. Unless there are particular exemptions, the net effect is that, schools will need:

- to reduce the scale so that they are making no more than 0.5 g explosive, or
- to ensure that the activity is covered by an appropriate Explosives Certificate if more than 0.5g of explosives is being manufactured, or
- to ensure the school has an Explosives Licence if they make more than 100 g of explosives.

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An Explosives Certificate (often called a Police Certificate) is free, relatively straight-forward and in some ways similar to a DBS check. The Explosives Certificate will need to be held by the teacher's employer when they are undertaking the class practical activity or demonstration as part of the school's undertaking.

If a teacher is acquiring the relevant explosives other than as part of the school's undertaking, the teacher will need to hold an Explosives Certificate as an individual.

If you store explosives whose acquisition requires an Explosives Certificate for more than 24 hours you will normally need a licence to store explosives from the police.

If you store explosives whose acquisition does not require an Explosives Certificate such as fireworks or theatrical pyrotechnics you will not need a licence to store explosives providing that you store 5kg or less and the explosives are assessed as being in hazard type 3 or hazard type 4. Your supplier should be able to tell you the hazard type of any explosives you acquire.

Further information on how to apply for licences and explosives certificates can be found at http://www.hse.gov.uk/explosives/licensing/index.htm

An Explosives Licence to manufacture explosives is usually issued by the HSE. It is expensive, difficult to obtain and subject to stringent conditions. It is not a Licence many schools will pursue. For more information on this please consult with CLEAPSS (or SSERC).

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