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## To: Management Authorities of Second Level Schools

### Aspects of Safety in Science Laboratories in Second Level Schools

#### **Safety in Schools**

The Department has produced a number of documents in relation to safety in school laboratories, including *Safety in School Science*<sup>1</sup> and *Safety in the School Laboratory*<sup>2</sup>. The former deals with general safety issues, including the labelling and storage of chemicals; the latter contains chemical safety data sheets for the range of chemicals normally found in second-level school laboratories.

The Health and Safety Authority (HSA) has also produced a number of documents which provide guidance on the implementation of the relevant legislation<sup>3,4</sup>, including a report that deals specifically with the situation in schools<sup>5</sup>.

The purpose of this circular letter is to clarify a number of **specific issues** in relation to safety in school laboratories that have arisen in the context of the materials developed by the National Biology Support Service. The issues concern the role of the teacher in relation to the carrying out of risk assessments and the drawing up of safety statements. This circular is not intended to be in any way exhaustive, but rather to address **specific identified concerns** of teachers. It does not purport to replace or interpret the various publications listed below, **nor is it intended as a legal interpretation of the relevant legislation**<sup>6,7,8,9</sup>. It remains the responsibility of persons charged with the task of dealing with safety issues in school laboratories to consult and be guided by the relevant publications when carrying out such work.

#### **Safety Statements**

The legislation requires all employers to prepare a Safety Statement in writing for their workplaces. In the case of schools the employer in this context is the Board of Management / VEC; teachers are not employers. "*It [the Safety Statement] should be drawn up by school*

*management in consultation with their employees ....*<sup>5</sup>. Preparing a Safety Statement requires an employer to “...*identify the hazards and assess the risks, otherwise known as carrying out a risk assessment ....*”<sup>4</sup>. A **hazard** is defined as “*anything which has a potential to cause personal injury or ill health*”, while **risk** is “*the likelihood that personal injury or ill health could occur from a particular hazard*; **assessing the risk** indicates how severe the effect could be.”<sup>5</sup>

The school management may ask a third party, e.g., a science teacher, to carry out a risk assessment for a particular room, e.g., a science laboratory. There is no requirement that pupils be involved in this activity. Irrespective of who actually carries out the work, however, the Safety Statement, once accepted by the management, becomes the sole responsibility of the management. The management is “...*ultimately responsible for the safety of everyone in the school/college and they can not delegate this responsibility.*”<sup>1</sup> Once the Safety Statement is accepted by the management, employees, including teachers, are bound to accept and implement it. It should be noted that employees have a responsibility to draw to management’s attention, either directly or through their Safety Representative, any matter which they consider may have health and safety implications.

The Safety Statement “...*applies to employees only and there is no requirement for the inclusion of provision relating to third parties (i.e., pupils/visitors in this case).*”<sup>5</sup> However, “...*the implementation of the terms of the Safety Statement will of course have a beneficial influence on the health and safety of pupils and visitors.*”<sup>5</sup> Furthermore, the management also have a “duty of care” to non-employees (e.g., pupils/visitors) who have access to the school. Section 7 of the 1989 Act “... *requires every employer ... to conduct their undertaking to ensure, so far as is reasonably practicable, that persons who are not his employees who may be affected by the operation of his undertaking are not exposed to risks to their safety or health.*”<sup>3</sup>

The Safety Statement must be accessible to all staff members. Thus, while it is likely that a copy will be kept in the school office, it could be useful to keep a copy of the relevant section in the laboratory.

### ***Preparing a Safety Statement***

The procedures involved in drawing up a Safety Statement are described, in varying levels of detail, in most of the publications listed below, in particular, references<sup>4,5</sup>. In the case of a science laboratory they may be summarised as follows.

- List all the possible hazards.
- List the associated risks; in each case, “... *estimate how likely it is that a hazard will cause harm and how serious that harm is likely to be.*”<sup>4</sup>, e.g., rate the risks as High, Medium or Low.
- List the required controls, i.e., the steps taken to minimise the risk.

- Name the responsible person. This is the person who is "... *charged with the responsibility of ensuring that the control measures are adhered to.*"<sup>5</sup>

### ***Biology Support Materials***

Materials prepared by the National Biology Support Service have been published in book form, in both paper and electronic formats, as *Biology Support Materials – Laboratory Handbook for Teachers*. References in this publication to the role of the teacher in relation to the preparation of safety statements and carrying out risk assessments should be read in the context of the content of this circular. Copies of this circular should be appended to copies of the book for ease of reference. The electronic version of the publication will be amended in due course.

### ***Safety in Science Teaching***

Teachers have a duty of care to pupils in their charge. Fulfilment of this duty includes drawing their pupils' attention to any hazard that pertains to a particular activity. In this context teachers should be familiar with relevant guidelines on laboratory safety, in particular, *Safety in School Science*<sup>1</sup> and *Safety in the School Laboratory*<sup>2</sup>. In general, teachers should be careful at all times to observe standard safety procedures when conducting practical activities in the laboratory.

Please bring this circular to the notice of the teachers concerned, and to the notice of parent and teacher representatives as appropriate, for transmission to individual parents and teachers.

John Dennehy,

Secretary General

March 2004

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<sup>1</sup> Safety in School Science, Department of Education and Science, 1996

<sup>2</sup> Safety in the School Laboratory – Disposal of Chemicals, Department of Education and Science, 1996

<sup>3</sup> Guide to the Safety, Health and Welfare at Work Act, 1989 and The Safety, Health and Welfare at work (General Application) Regulations, 1993, HSA, 2000

<sup>4</sup> Guidelines on Preparing your Safety Statement and Carrying out Risk Assessments, HSA, 2001

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- <sup>5</sup> Report of the Advisory Committee on Occupational Safety and Health at First and Second Levels in the Education Sector to the Health and Safety Authority (the Advisory Committee Report), HSA, 1995
- <sup>6</sup> The Safety, Health and Welfare at Work Act, 1989 (the 1989 Act)
- <sup>7</sup> The Safety, Health and Welfare at Work (General Application) Regulations, 1993 (the General Application Regulations)
- <sup>8</sup> The Safety, Health and Welfare at Work (Biological Agents) Regulations, 1994 (S.I. No. 146 of 1994) (Amended by S.I. No. 248 of 1998)
- <sup>9</sup> The Safety, Health and Welfare at Work (Chemical Agents) Regulations, 2001