

**THE SAFETY OF LABORATORY WORKERS WITH  
DISABILITIES**

*Enquiries received by the Royal Society of Chemistry indicate that there is a need for some basic guidance on how people with disabilities can pursue careers in chemistry, particularly in laboratories. The Society believes that disabilities should not prevent people from either studying chemistry or pursuing a successful career in chemistry.*

*This Note is designed to help anyone who manages or is employed in a laboratory. The intention is to provide information and guidance for both those with disabilities and for those without disabilities so that the latter can be better placed to assist their fellow workers who have disabilities. The Note does not pretend to be a full or definitive guide and readers are urged to obtain more detailed information if this is required.*

## 1. INTRODUCTION

There is a common misconception that the chemical laboratory is not a suitable place for people with disabilities. However this is not necessarily the case. Workers with disabilities may be safer than fellow workers without disabilities as they are more aware of their limitations.

A disabled person is defined by The Disability Discrimination Act 1995 as "someone with a physical or mental impairment which has a substantial and long term adverse effect on his or her ability to carry out normal day-to-day activities". This definition includes a wide range of people with differing disabilities such as those who have reduced vision or hearing, those who have restricted mobility, those who are mentally impaired or may be suffering from depression or stress, and those who are suffering from long term or progressive conditions such as multiple sclerosis.

## 2. LEGAL REQUIREMENTS

The Disability Discrimination Act 1995 requires that employers with 20 or more employees must treat disabled and non-disabled people equally in terms of all employment issues. It is an offence to discriminate against people with disabilities who are employees or who are being considered for employment unless it can be justified. In addition, employers have a duty to make reasonable adjustments to working conditions and the working environment to facilitate the employment of people with disabilities so that they are not at a disadvantage compared to those without disabilities. The Act makes it clear, however, that an employer is not expected to contravene health

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The EHSC welcomes comments on this Note. Please send them to the committee secretary:

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and safety legislation by employing or making unreasonable adjustment for a person with disabilities. The Act also established a National Disability Council to advise on the elimination of discrimination.

The Health and Safety at Work Act 1974 imposes a general duty on employers to ensure the health, safety and welfare of all their employees. In addition, the Management of Health and Safety at Work Regulations 1999 requires employers to identify hazards and to undertake the assessment, management and control of risks to their employees, including those with disabilities.

In common law employers must take reasonable care of their employees in order to prevent injury. This duty is owed to each individual employee. If an employer knows that an employee has a disability that could make them more susceptible to injury, or make the consequences of injury more severe than usual, then the employer must take extra precautions to protect that employee.

### **3. RISK ASSESSMENT**

The first step in ensuring the health and safety of an employee with disabilities in the laboratory is to identify the hazards of both the work activities and the workplace. An assessment of risks to which the employee with disabilities is likely to be exposed in doing a particular job can then be undertaken. The assessment should also consider the risks to others who might be affected by the actions of the employee with disabilities. The assessment should take into account the person's abilities and capabilities both at recruitment and for continuing employment while in the post.

It may be appropriate to involve an occupational health physician in the assessment in order to determine the individual's suitability to perform a particular job in the laboratory.

As a result of the risk assessment process the employers must make reasonable adjustments to working conditions and the working environment in order to eliminate, reduce or control the risk. In the case of a person with a progressive disability it may be necessary to repeat the risk assessment periodically and, where appropriate, make further adjustments.

### **4. REASONABLE ADJUSTMENT**

The Code of Practice designed to give guidance on the requirements of the Disability Discrimination Act 1995 gives examples and details of adjustments which are likely to be seen as reasonable. This can be a 'grey area'. What is reasonable has to be determined in the light of all the circumstances in each individual case. Adjustments should be discussed with the individual concerned and decisions should not be taken without the involvement of that individual. Reasonable adjustments might include:

- making adjustments to premises;
- allocating some of the person's duties to another employee;
- transferring the person to fill an existing vacancy;
- altering the person's working hours;
- assigning the person to a different work place;
- allowing absences for rehabilitation, assessment or treatment;
- providing training;
- acquiring or modifying equipment;
- modifying instructions or procedures or reference manuals;
- providing a reader or interpreter; and
- providing supervision.

Even if a condition deteriorates it may be possible to make further adjustments, find alternative work

or reduce the individual's workload.

A number of factors should be considered when determining the reasonableness of any adjustments. These include:

- the effectiveness of the step in preventing the disadvantage;
- the practicability of the step;
- the cost of the adjustment and the extent of the disruption caused;
- the extent of the employer's resources;
- the availability of financial or other assistance;
- the effect on other employees; and
- the extent of the co-operation of the person involved.

## **5. ADJUSTMENTS TO LABORATORY LAYOUT AND FACILITIES**

Adjustments to the laboratory layout and facilities, and to associated facilities such as libraries, may be necessary if people with disabilities are employed. The changes needed to the facilities should reflect the specific needs of the people involved. The examples given below concentrate mainly on reduced mobility because in practice this is the area to which most attention has been given hitherto. However, as mentioned above 'disability' covers a very wide range of conditions and it may be necessary to make other appropriate adjustments to take account of these. For example by improving hazard labelling or warning methods for containers of hazardous materials.

Safe means of access to and egress from the laboratory should include a ramp at the main entrance to allow wheelchair access. Handrails at the sides of ramps should also be provided as these will assist those ambulant persons who need support or aid to walk. Easy to open doors should be provided. Within the laboratory corridors should be sufficiently wide to allow wheelchairs to move along them easily.

Again, handrails at the sides of corridors would provide support for those who find walking difficult.

Floors should be well maintained and should not have any holes, unnecessary slopes or raised sections which would cause difficulties to wheelchair users or be dangerous for partially sighted or blind employees. Where access to all floors is needed from time to time the doors of lifts should be wide enough to allow wheelchairs to enter and operating buttons should be arranged so that they are not too high for a person in a wheelchair to operate. Operating buttons should have raised symbols or Braille so that blind people can operate them. In order to ensure safe access throughout the laboratory good housekeeping is essential to prevent obstructions and spillages which could present additional risks to people with disabilities. It may also be necessary to relocate light switches, door handles and the location of shelving for people who have difficulties in reaching these in a normal position.

Toilets and washing facilities should also be modified to allow easy access and use by people with disabilities, particularly those in wheelchairs. Ideally such facilities should be on the same floor as those people who use them. Doors should be wide enough to allow wheelchair access and where appropriate handrails should be provided. Wash basins should be at a suitable height so that they can be used by anyone in a wheelchair. Pull-cord alarm buttons should be provided to allow people to call for assistance in an emergency. The alarm should sound in an area of the laboratory that is permanently manned during normal working hours.

Workstations for individual employees with disabilities should be arranged to be suitable for the person using them and the task being performed. This may involve altering the height of benches, fume cupboards or desks to allow a person in a wheelchair to use them. It may also involve

changing the width of the bench to allow the person to reach taps, electrical power points and other controls. The employer may also have to provide special aids which would allow the person with disabilities to work safely and effectively. Many technical aids have been developed. Initiative should be used to develop or modify such aids for laboratory application with the full co-operation of the person involved.

## **6. EMERGENCY PROCEDURES**

Procedures for fire and other emergencies should be adapted to include the evacuation of people with disabilities. A nominated individual should be given the responsibility to ensure the safe evacuation of people with disabilities. A reserve should also be nominated to deputise in the event of illness or holiday. People with reduced mobility are likely to take longer to evacuate and may have difficulty in using stairs. It may be necessary to ensure that their normal place of work is on the Ground Floor. Special care should also be taken of employees with partial or no hearing who may not be aware of a fire alarm sounding.

In some circumstances it may be appropriate to have flashing lights as part of the alarm system located in rooms where employees hearing difficulties normally work or are likely to be present, such as in the toilet. A vibrating pager could also be used as part of the alarm system. Regular fire evacuation drills should be undertaken and this should include practice for evacuating those people with disabilities.

## **7. TRAINING**

Supervisors and fellow workers of people with disabilities need to be provided with special training in order that they understand the needs of persons with disabilities and so they are able to provide them with the necessary assistance whilst at work. Disability awareness training should focus on aspects such as what it feels like to be disabled, special aids required for employment, and how specific disabilities impact on employment.

## **8. EDUCATION**

The Disability Discrimination Act 1995 requires schools, colleges and universities to provide information on access for people with disabilities. However, the provision of education and some very closely related services such as some examination and assessment services and facilities for research students are not covered by the Act. Nevertheless, schools, colleges and universities are required to provide education for people with disabilities under separate legislation and in doing so need to make reasonable adjustments to their premises and facilities using the principles described above. Examination Boards should be contacted at an early stage to agree any special arrangements for assessments and examinations [e.g. provision of a scribe, agreement to use a PC, increased time allowance or whatever is appropriate in the circumstances].

In respect of health and safety issues it is the education provider's duty to make a risk assessment as to whether or not the individual student would be able to meet the requirements of the course without endangering either him/herself or others. For example, there will be many conventional practical exercises in the chemical laboratory that a blind student would not be able to carry out for him/herself for either safety or practical reasons. However, it might be possible to provide a helper who could assist the blind person with practical work. It is understood that there are already some examples of a helper carrying out practical work for a blind student and describing the results to him/her, thus overcoming both the safety and the practical difficulties.

## **9. TERMINATION OF EMPLOYMENT**

Unfortunately, there will be circumstances where an employer is unable to make adjustments to accommodate the needs of existing or prospective employees with disabilities because these adjustments are held to be unreasonable. Additionally, there may be a point when the condition of a person with a progressive illness has deteriorated to such an extent that any further adjustments would also be unreasonable.

In such circumstances it might be necessary to dismiss an existing employee with disabilities or impose compulsory early retirement on medical grounds. Dismissal or early retirement would need to be justified and the reason would have to be one which could not be removed by any reasonable adjustment. Justification would need to be supported by an occupational health physician.

## **10. CONCLUSION**

In many cases chemical laboratories and working conditions can be adapted by making reasonable adjustments to enable people with disabilities to be employed or to continue to be employed as chemists. This need not be especially onerous on the employer. The fact that a person has disabilities should not automatically prevent him/her from becoming a chemistry student. Nor should a disability preclude a career in chemistry. In all cases, risk assessments should be undertaken to enable employers to make reasonable adjustments to laboratory premises and conditions in order to eliminate, reduce or control the risk.

## **11. SUPPORT FOR RSC MEMBERS**

The RSC provides a range of services for members who have disabilities or special needs including information on resources, employment services and details of useful contact organisations. The resources that RSC can provide includes the provision (on request) of certain RSC documents, including the Members Handbook, in large print and "Talking World", a quarterly selection of articles from "Chemistry World" on audiotape. Full details can be obtained from the RSC web area for members with disabilities and/or special needs at <http://www.rsc.org/lap/profserv/specialneeds.htm> or by contacting Julie Franklin, Professional & Employment Services Manager on 0207 440 3312 or Email [franklinj@rsc.org](mailto:franklinj@rsc.org).

Members whose employment has ended as a result of their disability or is suffering extreme hardship may wish to be considered for assistance by the Society's Benevolent Fund [see below].

## **12. RSC BENEVOLENT FUND**

In the event of dismissal or early compulsory retirement on medical grounds, anyone in membership of the RSC who finds themselves in financially straitened circumstances may apply for assistance to the RSC Benevolent Fund. Applicants should normally have been in membership for 3 years, but this requirement can be waived in exceptional situations. All applications are considered individually according to their circumstances. Examples of ways in which the Fund might help include assistance with family living expenses, for large items of necessary household equipment, or for specialist equipment related to the member's disability where this is not supplied by the local authority. Applications should be made to the Benevolent Fund at Thomas Graham House, Cambridge CB4 4WF. Details can be obtained from the RSC website or by contacting Jane Banning on 01223 432357 or Email [benfund@rsc.org](mailto:benfund@rsc.org).

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