

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 person with disabilities is defined by The Equality Act 2010 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 speech, vision or hearing capacity, those who have restricted mobility, lifting capacity or dexterity, 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 HIV, multiple sclerosis, epilepsy and cancer. The Equality Act 2010 replaces the Disability Discrimination Act 1995 which has been repealed.

This Note was produced by a Working Party of the Environment, Health and Safety Committee [EHSC] of the Royal Society of Chemistry.

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The EHSC welcomes comments on this Note. Please send your comments to:

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May 2013

2. Legal Requirements

The Equality Act 2010 requires that all employers must treat people with disabilities and those without 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 and safety legislation by employing or making unreasonable adjustment for a person with disabilities. Every employer should have a policy in place which aims to prevent discrimination against employees with a disability. They should also ensure that this policy is made known to all employees.

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. Other health and safety regulations also impose risk assessment requirements, e.g. Control of Substances Hazardous to Health (COSHH) and Dangerous Substances and Explosive Atmospheres Regulations (DSEAR).

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 employer must make reasonable adjustments to working conditions and the working environment in order to eliminate, reduce or control the risks. 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

Guidance on the requirements of the revoked the Equality Act 2010 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 can include:

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

Even if a condition deteriorates, it may be possible to make further adjustments, find alternative work or reduce the individual's workload.

The following factors should be considered when considering the reasonableness of any adjustments:

- the effectiveness of the adjustment in preventing the disadvantage;
- the practicability of the adjustment;
- the costs of the adjustment and the extent of the disruption caused;
- the extent of the employer's resources;
- 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 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 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 for wheelchair access. Handrails at the sides of ramps should also be provided as these will assist 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 can provide support for people who find walking difficult.

Floors should be well maintained and should not have any holes, unnecessary slopes or raised sections which can 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 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 the people who use them. Doors should be wide enough to allow wheelchair access, where appropriate, handrails should be provided and flooring materials should not be slippery. Washbasins 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. These alarms should be clearly marked in order to avoid being mistaken for a pull-cord light switch. The alarm should sound in an area of the laboratory that is permanently manned during normal working hours. In wash areas, it may be necessary to have long-handled, pedal-operated or sensor operated taps.

Workstations for 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

Under current fire safety legislation it is the responsibility of the person(s) having responsibility for the building to provide a fire safety risk assessment that includes an emergency evacuation plan for all people likely to be in the premises, including people with disabilities. Such an evacuation plan should not rely upon the intervention of the Fire and Rescue Service to make it work. A nominated individual or team of individuals should be given the responsibility and training to ensure the safe evacuation of people with disabilities. Deputies should also be appointed to take charge in the event of illness or holiday. People with reduced mobility are likely to take longer to leave the building and may have difficulty in using stairs. It may be necessary to ensure that their normal place of work is on the ground floor, if this is not possible then provision should be made to provide assisted evacuation, this may include assisting or carrying individuals, suitable equipment and training should be given to these assistants.

Those people with disabilities that require assisted escape may require a pre-arranged meeting place or refuge. If people with disabilities are likely to move around the building, a means of communication will be necessary between the escape assistant(s) and the disabled person. They can then arrange to meet at a particular refuge point during the escape. People should never be left in a refuge point to wait for the Fire and Rescue Service.

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 with 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 people with disabilities.

7. Training

Supervisors and fellow workers of people with disabilities need to be provided with special training so that they understand the needs of persons with disabilities and can 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 Equality Act 2010 applies also within the education sector. The provision of education and related services, such as some examination and assessment services and facilities are impacted by the Equality Act in a similar way to the employment situation, i.e. it is illegal to discriminate against pupils and students in all aspects of educational life from admissions through to field trips. Exclusion from certain activities is **only** permitted if fully justified and is determined on a case-by-case basis incorporating the principles of making reasonable adjustments. In terms of planning for completion of courses, an early approach should be encouraged 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 of the student's ability to meet the requirements of the course without endangering him/herself or others. For example, there may be many conventional practical exercises in the chemical laboratory that a blind student can not carry out for safety or practical reasons. However, it may be possible to provide a helper who could assist the blind person with practical work. 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 the safety and practical difficulties.

9. Termination of Employment

Unfortunately, there may be circumstances where an employer cannot 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 may be necessary to terminate 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 risks.

11. Support for RSC Members

The RSC Benevolent Fund supports RSC members and their families in times of difficulty, providing a confidential service to offer advice and guidance on a wide range of issues, as well as providing financial assistance in some circumstances. Support may also be provided through access to professional resources, such as referrals to external specialist agencies, or where appropriate to the RSC's specialist careers adviser. If you would like to contact the Benevolent Fund Specialist to discuss any queries or concerns you can email benfund@rsc.org or call 01223 432227.

Members can arrange for a face to face appointment with one of the careers specialists at a Careers Hub in their area, or at the Royal Society of Chemistry offices in London or Cambridge. Consultations can also be provided over the telephone, including some evenings, as well as by email. There is additional information available, including dates and locations of Careers Hubs, on MyRSC (www.myrsc.org).

12. Further Reading

- Equality Act 2010 - <http://www.legislation.gov.uk/ukpga/2010/15/contents>
- Equality Act 2010 Guidance, Government Equalities Office – <https://www.gov.uk/equality-act-2010-guidance>
- Equality Act 2010 Guidance, Office for Disability Issues – <http://odi.dwp.gov.uk/docs/wor/new/ea-guide.pdf>
- The Office of the Deputy Prime Minister “Planning and Access for Disabled People – A Good Practice Guide”, The Stationery Office, (2003).
- Royal Society of Chemistry “EHSC Note on Individual Legal Responsibilities for Health and Safety at Work” (2003?).
- Royal Society of Chemistry “EHSC Note on Risk Assessment at Work”
- British Standards Institution, BS8300:2009, “Design of Buildings and their approaches to meet the needs of disabled people – code of practice”, ISBN 0-580-384381.
- HSE’s disability microsite – www.hse.gov.uk/disability.
- Employers’ Forum on Disability – www.employers-forum.co.uk
- The Equality and Human Rights Commission – www.equalityhumanrights.com
- <http://www.premia.ac.uk> – this website is aimed at supporting disabled postgraduate researchers providing information and advice to, among others, research supervisors, non-disabled researchers and those with a disability engaged in research in a university.

This Note was produced by a working party of the Environment, Health and Safety Committee (EHSC) of the Royal Society of Chemistry.

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