DISABILITY DISCRIMINATION ACT 1995 (DDA)

1. INTRODUCTION
This Guidance note aims to highlight some of the possible effects of the Disability Discrimination Act will have on fire alarm and detection systems.

Although much is written regarding the DDA and its related documents, there is little in the way of prescriptive detail and much is based on what is considered “reasonable”, thus many solutions may be acceptable for any particular situation.

2. INTRODUCTION
The Disability Discrimination Act (DDA) was introduced in 1995, under which service providers have a range of duties, which may affect the way in which services are provided for disabled people. These duties are being introduced in three stages:

- Since 2nd December 1996 it has been unlawful for disabled people to be treated less favourably for reasons related to their disability.
- Since 1st October 1999 service providers have had to make “reasonable adjustments” to accommodate disabled people, by providing extra help or making changes in the way services are provided.
- Since 1st October 2004, service providers have had to make “reasonable adjustments” to premises to overcome barriers to access.

The Disability Rights Commission (DRC) is an independent body which was established in April 2000 by Act of Parliament to stop discrimination and promote equality of opportunity for disabled people. The DRC helps disabled people to get their rights under the DDA and supports legal cases to test the limits of the law.
1. Who is a service provider?
Service providers are companies or organisations that offer goods, services or facilities to the public in the UK. The following categories are included:

- Financial services – banks, building societies and insurance companies
- Health services including hospitals and Doctors surgeries
- Courts, solicitors and advice centres
- Cinemas and theatres
- Transport facilities (but not the vehicles)
- Shops, hotels and restaurants
- Sports centres, sports grounds and parks
- Private education
- Schools, colleges and universities when used for non-educational activities.

2. Employers
Employers are covered by the Discrimination (employment) Regulations 1996 if they employ more than 15 people, whether part time or full time, however from 1st October 2004 the regulations were extended to cover all employers. The aim is to ensure equality of employment opportunities including features of a building or its fittings, which might prove a disadvantage to disabled employees.

Prison officers, Police, Firefighters, and the armed forces are not covered by the act, neither are employees who work on ships or aircraft or who work largely outside Great Britain. However, the DRC provides guidance on their website on how the uniformed services can deal with the issues raised by the Act.

3. Who is a disabled person?
Under the act a "disabled person" is legally defined as someone with "a physical or mental impairment that has a substantial and long-term adverse effect on his/her ability to carry out normal day-to-day activities".

Normal-day-to-day activities include:

- mobility – e.g. being able to walk to the local shop
- manual dexterity – e.g. typing
- physical co-ordination
- continence
- ability to lift, carry or otherwise move everyday objects
- speaking, hearing or seeing
- memory or ability to concentrate, learn or understand
- perception of the risk of physical danger

The law also covers people with severe disfigurements, and ‘hidden’ disabilities like dyslexia and epilepsy, depending upon the severity of the impairment. It can also cover people with progressive conditions, such as HIV, cancer or multiple sclerosis. People who have had a disability in the past are also covered, even if they have recovered – for example those who have had episodes of mental ill health. People who have severe back pain or arthritis can be covered by the law if that condition means that their ability to do normal activities is impaired.

Some conditions are not considered to be disabilities for the purposes of the Act. These are:

- addiction to or dependency on alcohol, nicotine, or any other substance (unless the substance has been medically prescribed)
- the condition known as seasonal allergic rhinitis (e.g. hayfever), except where it aggravates the effect of another condition
- tendency to set fires
4. What is discrimination?
Since October 1st 2004, the Disability Discrimination Act outlawed the following kinds of discrimination by all employers:

a) direct discrimination
b) failure to comply with the duty to make reasonable adjustments
c) treating a disabled person less favourably
d) subjecting a disabled person to harassment
e) victimisation of a disabled person

As far as Fire alarm systems are concerned Discrimination via options b) and c) apply: treating the disabled person less favourably than other customers because of their disability or not making reasonable adjustments to the way the service is delivered. Less favourable treatment can occur in three different ways: refusing to serve the person, providing a lower standard of service, or providing the service on worse terms. (It is not necessary to show that others were actually treated better just that they would have been treated better.)

5. Making Changes
Whereas the previous stages of the act have concentrated on changing practices, policies or procedures and providing auxiliary aids to help the disabled, this final stage now calls for physical changes to be made to properties if a feature makes it unreasonably difficult for disabled people to use services.

Nothing in the Act requires manufacturers or designers to make changes to their products, packaging or instructions, as they are not in themselves providing a service. It does however suggest that the consideration of disabled customers would be a matter of good practice.

6. Documents
Although this Fact File is concerned with the DDA there are other related documents that have a bearing on the way fire detection and alarm systems are affected by the act. A more comprehensive list of information is given at the end of this document.
These are:

- Approved Document M of the building regulations for England and Wales
- Building Standards (Scotland) Regulations (was Part T until 2000 when it was incorporated into the general technical standards)

Note:
Approved Documents are intended to provide guidance for some of the more common building situations. However, there may well be alternative ways of achieving compliance with the requirements. Thus there is no obligation to adopt any particular solution contained in an Approved Document if you prefer to meet the relevant requirement in some other way.


BS 8300:2001 design of buildings and their approaches to meet the needs of disabled people. Code of practice.
7. How may Fire detection and alarm systems be affected?
FD&A systems are likely to be affected where they interface with the public, that is:

- The provision and sighting of manual call points
- The methods by which an alarm is annunciated
- Features that may be controlled by the fire system along escape routes such as automatic door closers or route signage.

7.1. Manual call points
are not specifically mentioned in the act, but guidance is given in section 20 of BS 5839-1 where a significant proportion of the occupants have limited mobility. In particular clauses 20.2(e) and 20.2(h) refer to area where a reduction in travel distance and a small reduction in mounting height to help the disabled, where mobility may be reduced.

In the majority of public areas there is unlikely to be a need to deviate from the normal distribution of call points as there will be able bodied people who can operate a call point and assist those less mobile. However the requirements of 20.2(h) to mount the call point in well illuminated positions on a contrasting background should be headed to assist the partially sighted.

Similar consideration may be required for green call points used to release electrically locked doors.

7.2. Alarm Annunciation
Alarm sounders are specifically mentioned in the DDA and examples are given where audible alarms should be supplemented by visuals. This is reinforced by Approved Document M that states:

4.24 Sleeping accommodation will satisfy Requirement M1 if:

7.2.2.1.1. e) all bedrooms have a visual fire alarm signal, in addition to the requirements of Part B

5.4 Sanitary Accommodation will satisfy Requirement M1 or M3 if:

7.2.2.1.2. g). any fire alarm emits a visual and audible signal to warn occupants with hearing or visual impairments;

Note:
M1 = Access and Use, M2 = Access to Extensions to buildings other than Dwellings, M3 = Sanitary Conveniences in Extensions to Buildings other than dwellings.

BS 8300 Design of buildings and their approaches to meet the needs of disabled people. Code of practice, was used as the base standard for many of the requirements in Approved Document M and states:

“Consideration should be given to the installation of alarm/alerting systems for people with impaired hearing, such as flashing visual devices and vibrating devices, for use in conjunction with proprietary or conventional systems.

Note 1:
These devices can take the form of wearable paging units, pillow vibrating units or under mattress pads designed to wake a person from sleep.

Note 2:
Certain frequencies in flashing/stroboscopic light systems can cause confusion, disorientation, and in some people epileptic fits.”

The standard goes on to specifically recommend that the fire alarm systems should be both visual and audible in kitchens, sanitary facilities and bedrooms.

BS5839-1 section 18 specifically deals with “Fire alarm warnings alarms for people with impaired hearing”, while section 17 covers the use of “Visual alarm signals”.
Although visual alarm devices are mentioned they are not the only alarm devices that may be employed. BS 5839-1 18.2.1 allows for tactile alarms whether fixed moveable or portable. Portable devices are those that may be carried on the person and can use radio, induction loop or infrared technology. They should however be considered as a supplement to the primary means of giving an alarm.

Where visual alarm devices are installed in sleeping accommodation they should not be considered the primary method of waking sleeping persons the other devices described above should be used.

7.3. Fire Doors, not mentioned in the DDA, but are covered in Approved document M

3.10 Internal doors will satisfy requirement M1 or M2 if:

k) fire doors, particularly those in corridors, are held open with an electro-magnetic device, but self-close: when:

- activated by smoke detectors linked to the door individually, or to a main fire/smoke alarm system;
- the power supply fails;
- activated by a hand-operated switch;

These requirements should be normal fire alarm practice for units which use magnetically operated door retainers, but may require the provision of a push-to-release switch if one is not incorporated in the retainer itself.

8. Frequently asked Questions

8.1. What devices can be installed to meet the requirements of the DDA?
The DDA itself requires that reasonable adjustments are made to accommodate disable persons. How this is achieved will depend on the type of building and its use. Approved document M states that the requirements can be met by installing additional visual alarms in bedrooms and sanitary accommodation. BS 8300 recommends the use of additional flashing visual devices and vibrating devices.

Currently the additional visual devices can either be a separate visual device, or a combined sounder/visual device which some manufacturers supply.

8.2. Should visual devices be installed throughout the premises?
As mentioned earlier as the DDA itself requires “reasonable adjustments” and BS 8300 and AD M only specify that additional visual devices be installed in kitchens, toilets and bedrooms, there is no set requirement to install them throughout a premises. The decision to do so should be taken after a risk assessment is carried or at the request of the client.

8.3. What spacings should be used when installing the additional visual devices?
In the absence of any UK standards we suggest you seek the advice of the manufacturer.

However as a rule of thumb the following spacing for visual devices can be considered:

- For large public areas one visual device for every 3 detectors/sounder i.e. about 1 every 30m.
- In small sanitary facilities and bedrooms one device should be sufficient.
- For large rooms similar spacings to public areas should be considered.

This follows US experience in particular NFPA 72 which gives detailed guidance on the spacings of US products. However, the US products tend to have a significantly higher light output than for UK products. This guidance will be continually reviewed based on the proposed research project see 10.4 below.

8.4. How bright should the additional devices be?
At present there is very little experience or guidance in the UK on the required light output of the visual devices to alert deaf persons. There has been a great deal of work done on this in the US and
NFPA 72 goes into great detail in deciding what should be specified depending on room size and geometry but this may not directly translate to UK experience. BS 5446-3 the product standard for alarm devices for Deaf person in residential premises specifies a light level but the devices incorporate a vibrating device as well as the flashing visual device. The colour of the light is also important. We recognise that the light output of the device is related to the power required to drive the visual device, the brighter the light the greater the power required. If very bright visual devices are required this will have an effect on the design of fire alarm system in the UK. BFPSA is currently discussing the light output of visual devices with BSI and ODPM. It is hoped that ODPM will support a research project to determine the light output of visual devices.

8.5. **Visual devices in sleeping accommodation**

ODPM have confirmed that it was never the intent of the UK Regulations that visual devices in bedrooms should be the primary means of waking a sleeping person. It is recommended that the visual device in bedrooms should be supplemented by an additional means of waking the persons with reduced hearing abilities, such as a vibrating device.

9. **Further information**

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<td>d) Approved Document M Access and facilities for disabled people.</td>
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<td>e) Building Standards (Scotland) Regulations</td>
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<td>g) BS8300: 2001. Design of buildings and their approaches to meet the needs of disabled people. Code of practice to make reasonable adjustments.</td>
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<tr>
<td>h) BS 5446-3 . Fire detection and fire alarm devices for dwellings. Specification for smoke alarm kits for deaf and hard of hearing people</td>
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<td>i) NFPA 72. National Fire Alarm Code</td>
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## Sources

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<td>Disability Rights Commission</td>
<td>Tel: 08457 622 633, Fax: 08457 622 644, Email: <a href="mailto:enquiry@drc-gb.org">enquiry@drc-gb.org</a>, Website: <a href="http://www.drc-gb.org">www.drc-gb.org</a></td>
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<td>Office of the Deputy Prime Minister</td>
<td>Tel: 020 7944 4400, Fax: 020 7944 9622, Email: see website, Website: <a href="http://www.odpm.gov.uk">www.odpm.gov.uk</a></td>
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<td>The Stationary Office</td>
<td>Tel: 0870 600 5522, Fax: 0870 600 5533, Email: <a href="mailto:book.orders@tso.co.uk">book.orders@tso.co.uk</a>, Website: <a href="http://www.clicktso.com">www.clicktso.com</a></td>
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<td>British Standards Institution</td>
<td>Tel: 020 8996 9001, Email: <a href="mailto:cservices@bsi-global.com">cservices@bsi-global.com</a>, Website: <a href="http://www.bsi-global.com">www.bsi-global.com</a></td>
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<td>National Fire Protection Association</td>
<td>Tel: +1 617 770-3000, Fax: +1 617 770-0700, Email: <a href="mailto:stds_admin@nfpa.org">stds_admin@nfpa.org</a>, Website: <a href="http://www.nfpa.org">www.nfpa.org</a></td>
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