



National guidance document on the provision of water for fire fighting



January
2007
3rd
Edition

This document is jointly published
by the Local Government Association and Water UK
First Edition 1998
Second Edition 2002
Third Edition January 2007

Foreword

It is true to say that to be successful in firefighting, fire fighters must have immediate access to adequate supplies of water. The access to, and proximity of, those water supplies directly affects the resources that Fire and Rescue Authorities need to provide in protecting and mitigating their communities from the effects of fire.

This third edition of the National document has been produced jointly by representatives of the Water Industry, the Fire and Rescue Service with the encouragement of the Department for Environment, Food and Rural Affairs, The Welsh Assembly Government and the Department for Communities and Local Government. It demonstrates commitment by all Water Companies and the Fire and Rescue Service to improve working relationships and secure co-operation in meeting the challenges facing both parties.

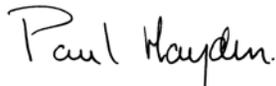
The objectives of this document remain to promote liaison and encourage understanding of the issues facing each party at a local, regional and national level so that all can provide a safer and improved service to their customers. It is essential reading for Water Companies and Fire and Rescue Services who are encouraged to review existing liaison arrangements where they exist, and align them with the recommendations in the guidance document, or take steps to establish them where they do not.

Since its first issue the guidance has been successful and has helped improve the, spirit of co-operation and partnership between the Fire and Rescue Service and the Water Industry that is based on meeting the needs of public safety and expectation

From the earliest days of its formation the Group has recognised the importance of adopting a joint "risk assessment methodology" approach to situations. This principle also formed the basis of the Guidance on Inspection, Testing and Abandonment of Fire Hydrants published in the winter of 2000 and incorporated into the second edition of this document. This third edition has updated the document to take into account legislative amendments including the enactment of the Fire and Rescue Services Act 2004 and changes made in the Water Act 2003.

The future work of the National Liaison Group will continue to be monitoring the advice in this document to ensure that it is practicable and is working well, and to ascertain whether there is any need to review existing legislation.

Finally we would like to thank those responsible for continuing to develop the thoughts of both Water UK and the LGA into this guidance and those practitioners out in the field for embracing and implementing its objectives



Paul Hayden
Advisor, the LGA Fire Committee



Richard Ackroyd
Chairman, Water UK

Contents

1	Introduction	5
2	Fire and Rescue Service duties - background legislation	6
3	Water Companies' duties - background legislation	7
4	Liaison	8
	4.1 National Liaison Group – terms of reference	9
	4.2 National Liaison Group – representation	9
	4.3 Authority	9
	4.4 Regional liaison	9
	4.5 Area/Local liaison	9
5	Providing and securing water for fire fighting	11
	5.1 General principles	11
	5.2 New development flow rates	11
	5.3 Existing hydrant flow rates	11
	5.4 Risk assessment	11
	5.5 Water distribution - network hydraulics	13
	5.6 Communications needs during distribution changes	13
	5.7 Sprinkler Systems	13
6	Inspection, testing and abandonment of hydrants	14
	6.1 Objectives and issues for consideration in formulating policy	14
	6.2 Risk assessment approach	14
	6.3 Hydrant inspection and testing methodology	14
	6.4 Hydrants following use by fire brigade at operational incidents	15
	6.5 Maintenance costs	15
	6.6 Conclusion	15
7	Securing water for fire fighting purposes on new sites	17
8	Water quality	18
9	Disputes procedure	19
Appendix 1	Extracts from Fire and Rescue Service legislation	20
Appendix 2	Extracts from English/Welsh water legislation	23
Appendix 3	Points for consideration when drafting local arrangements	34
Appendix 4	Points for consideration when securing the provision of water for fire fighting	35
Appendix 5	Guidelines on flow requirements for fire fighting	37
Appendix 6	Fire Safety - Contribution on Building Regulations	39
Appendix 7	Model disputes procedure	40
Appendix 8	Glossary of terms	41

1 Introduction

- 1.1 The purpose of this document is to facilitate and promote liaison between Local Authority Fire and Rescue Services and Water Companies in England and Wales through guidance, that identifies the issues that Water Companies and Fire and Rescue Services should consider when preparing their own local arrangements. It highlights the issues that are of concern to Water Companies and Fire and Rescue Services so that each may be aware of the other's obligations, objectives and constraints in the preparation of local arrangements for providing and securing water for fire fighting.
- 1.2 Water Companies operate within a regulated environment and are striving to provide the highest levels of service to their customers at levels of costs that reflect good value for money. They also have obligations that are laid down in statute. The Fire and Rescue Service is a public emergency service and is provided under statute by local Fire and Rescue Authorities which have the responsibility of providing a service to meet local needs under normal circumstances. Taking account of these operating parameters, the document is aimed at developing a set of principles to support good local liaison.
- 1.3 It is only through a thorough understanding by both parties of each other's statutory duties and procedures that the day to day working relationships will effectively deliver the service expected by the public from both organisations. In order to promote a good understanding it will be necessary for good communication links to be developed at all levels. It is considered that the foundation for these lies in structured training and education supported from a firm commitment by those involved.
- 1.4 Both the Fire and Rescue Services and Water Companies are developing and adjusting their operational procedures, where possible, to take account of the environmental impact of their operations. This commitment itself may impact on the relationship between the two services and will need to be taken into account when making local arrangements. The Water Companies will also need to take account of water quality and customer service issues that may arise as a result of their networks being used by the Fire and Rescue Service.
- 1.5 However, it is emphasized that the purpose of this document is to provide guidance to Fire and Rescue Services and Water Undertakers, and that it is not the intention that this document should impose any additional legal obligations on them.

2 Fire and rescue service duties - background legislation

- 2.1 The Fire and Rescue Services Act 2004 is the principal legislation, which governs both the Secretary of State and Local Authorities in the provision of fire and rescue services. It sets out both the duties and powers under which water for fire fighting should be provided. It requires that the Fire and Rescue Authority takes all reasonable measures to ensure the provision of an adequate supply of water and securing its availability for use in case of fire. The Act also gives fire officers wide-ranging powers in carrying out their duties to enable a speedy response to the outbreak of fire.
- 2.2 In providing a fire and rescue service, Fire and Rescue Authorities are required to agree their own emergency cover standards which include response options and weight of attack. Fire and rescue services preplan their response and weight of attack to fires by taking into account the risk to life, the type and construction of buildings, and the availability of water supplies for firefighting purposes for the area of risk.
- 2.3 The Fire and Rescue Services Act 2004 also requires the water undertaker to take additional measures if requested by the Fire and Rescue Authority to provide a greater pressure or higher flow supply than normally available. In exceptional circumstances this could include shutting off supplies from other mains. Details of relevant legislation are given in Appendix 1.

3 Water companies' duties – background legislation

3.1 The obligations on the water industry are contained in the Water Industry Act 1991. In certain circumstances, the act is supplemented by further directions and regulations e.g. the Water Supply (Water Quality) Regulations 2000 and Water and Sewerage Services (Customer Service Standards) Regulations 1989 otherwise known as the Guaranteed Standards Scheme and DG reference Levels of Service, some of which may also be relevant to Fire and Rescue Service activities.

3.1 This legislation requires the Water Companies to:

- a) Provide water constantly in mains and other pipes that have fire hydrants fixed on them at a pressure that will reach the top most storey of every building in the Undertaking's area except in certain circumstances or when work is being undertaken.
- b) Provide a water service to customers sufficient for domestic purposes at an agreed minimum flow and pressure and report to Ofwat General where this is not achieved. In addition companies must provide supplies without interruption, which if they occur on an unplanned, unwarned basis must be reported to Ofwat. Both measures are used by Ofwat as one of the principal indicators of customer service performance in the Water Industry.
- c) Supply water that is wholesome and within defined quality parameters. Failure to achieve the quality parameters may lead to prosecution by the Drinking Water Inspectorate.
- d) Allow any person to take water for fire fighting purposes from any pipe to which a fire hydrant is fixed. Fire hydrants are fixed on request at convenient points except on trunk mains. The Fire and Rescue Authority, or the person requesting the apparatus, is liable for the costs of this work.
- e) However the Water Companies do not have powers to require developers to size mains for fire fighting purposes. If a developer requisitions additional mains capacity above that needed for domestic purposes, it can be provided and the costs met by the developer.

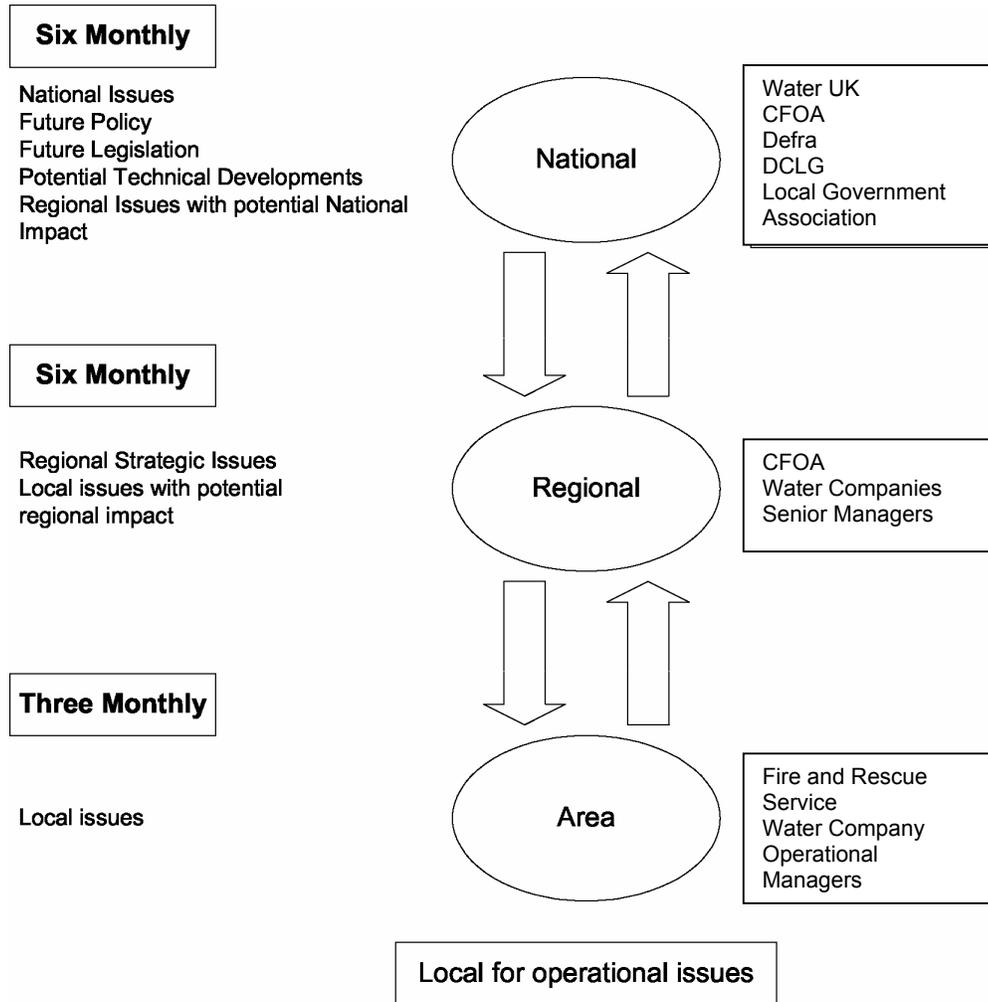
The legislation also states that:

- a) Water taken for fighting fires or for testing and training is not chargeable.
- b) Recklessly interfering with any resource, water main or other pipe is an offence.

3.2 Details of the relevant legislation are given in Appendix 2

4 Liaison

Good liaison and information exchange is essential to support the operational needs of both the Fire and Rescue Services and Water Companies, and is necessary at all levels to take account of national, regional, area and local issues.



4.1 **National Liaison Group - terms of reference Objectives**

To facilitate constructive and productive liaison between the Water Industry and the Fire and Rescue Services at national level and to support and encourage liaison at local operational level. For this purpose the Water Industry and Fire and Rescue Service will:

- a) formulate frameworks for best practice that will assist the Water Industry and Fire and Rescue Service in delivering their statutory duties;
- b) enable the Water Industry and Fire and Rescue Services to exchange information on operational and statutory matters, either in place or proposed, to enable each to gain a better understanding of the issues which relate to or impact upon their respective activities;
- c) enable the Water Industry and Fire and Rescue Services to exchange information on technical or operating methods and procedures, either in place or proposed, to gain a better understanding of the issues which relate to or impact upon their respective activities;
- d) provide the mechanism for information relating to the Group to be disseminated through to their members as background for their companies and services operating at local level.

4.2 **National Liaison Group - representation**

- a) The representation of the Group should be such as to facilitate constructive liaison between the Water Industry and the Fire and Rescue Services.
- b) The general views of the Water Industry in this Group are represented by Water UK.
- c) The drinking water quality regulator for England and Wales (DWI) shall also be represented
- d) The views of Fire Services in this Group are represented by the LGA and CFOA.
- e) Each organisation to nominate a single lead contact for the purpose of the Group.
- f) The Group will operate under the chairmanship of DEFRA, and include the Department of Communities and Local Government..

4.3 **Authority**

Water UK and the Local Government Association undertake to use their best endeavors to ensure compliance with best practice and guidance issued to action this.

4.4 **Regional liaison**

It is recommended that Regional Liaison Groups are set up based on the Chief Fire Officers Association (CFOA) structure, perhaps modifying membership to represent the administration boundaries of the local Water Companies. This would provide a consistency of approach to issues and working practices where the boundaries of Fire and Rescue Services and Water Companies are not similar.

4.5 **Area / Local liaison**

Area liaison between individual Fire and Rescue Services and Water Companies is of vital importance because it is at this level that operational effectiveness rests. Local arrangements covering a range of topics, as suggested in Appendix 3, may need to be drawn up; and, once in place, regularly monitored for effectiveness at local level.

Local liaison to facilitate day to day operational effectiveness will also be dependent upon a good understanding of the respective roles of those involved. Local training should be undertaken to build an awareness of each other's obligations and operating procedures. It may be appropriate to consider formalised training sessions using employees with specialist knowledge and skills from both organisations. In addition to formal sessions, seminars and site visits should be encouraged to help promote co-operation and understanding between members of both organisations.

Local discussion and agreement needs to recognise three distinct phases of liaison:

a) Continuous Liaison

The continuous liaison which facilitates the ongoing state of availability of water for fire fighting.

b) Emergency Liaison

The emergency liaison that occurs in respect of and during an incident which may have an impact on each others' operations.

c) Post Incident Liaison

The liaison that takes place following an incident to review preplanning and performance.

It is recommended that liaison takes place via a nominated Lead Officer from both the Fire and Rescue Service and the Water Company.

Emergency liaison will be greatly assisted by the less formal training, which should include site visits to control centres. This will strengthen the communication links, which need to be robust to ensure effective cooperation when dealing with incidents.

Both training and local agreements will need to address liaison at the incident site. This should include developing procedures that fit into the Fire Service command structure of incidents.

5 Providing and securing water for fire fighting

5.1 General principles

The general principle is that there should be operational cooperation between Fire and Rescue Services and Water Companies to determine actions that might be required to provide and secure water for fire fighting. The Fire and Rescue Service are experts at assessing and planning the actions required to fight fires in any given circumstance. Water Companies expertise is central to the process of assessing and predicting the extent to which the distribution system can provide water for fire fighting. Providing and securing water for fire fighting is therefore a joint process balancing what might be required with what may be made available then agreeing actions to "fill the gap", if one exists. Water Companies and Fire and Rescue Services have limited resources, therefore some form of priority ranking of risk assessments is required. Particular attention should be paid to those potential incidents that carry the greatest risk and might need significant resources to tackle a real incident. The following sections provide some areas for consideration when making arrangements for determining how individual companies and Fire Services approach this issue.

The provision of water for fire fighting requires careful preplanning that not only establishes need but goes on to identify the sources of water, whether drawn from public water mains or other sources, and then secures availability for use in case of fire.

5.2 New development - flow rates

The flow rates that the Fire and Rescue Service ideally requires to fight fires are detailed in Appendix 5, for the categories of premises identified and for hydrants requisitioned for new domestic or industrial sites. The Water Company will inform the Fire and Rescue Service where they estimate that these flows cannot be met under normal demand conditions, with no additional demands from third parties beyond the control of the Water Companies, and a joint agreement reached on making water available using the principles outlined in section 5.4.

This guidance document does not consider the provision of supplies for sprinkler systems. This is covered in the "Guidance for the Supply of Water to Fire Sprinkler Systems" - see para 5.7. jointly published by the Fire Protection Association, British Automatic Sprinkler Association Ltd and Water UK.

5.3 Existing hydrants - flow rates

Where the Water Company makes significant permanent changes to the distribution network, the Fire and Rescue Service and the Water Company should consider how part or all of the flow requirements set out in Appendix 5 could be achieved. Any shortfall should be assessed using the considerations in Appendix 4.

5.4 Risk assessment

Dependent upon the potential for larger fires to occur, it may be necessary for the Fire and Rescue Service to consider securing greater supplies of water than those immediately available from the nearest hydrant. In these cases it would be appropriate to apply a risk assessment methodology which could be used in identifying the sources of water for fire fighting purposes and can be based on either a site specific basis for large, isolated and high risk premises or generic assessments for other areas such as city centres or industrial estates.

It may be appropriate to consider both probability and consequences of fire in determining satisfactory arrangements during risk assessments. Risk assessment may also be considered by the Water Companies in assessing or predicting the effects of drawing large quantities of water from their network on water quality and availability when large scale fire fighting operations are carried out.

Figure 2 demonstrates the general principles.

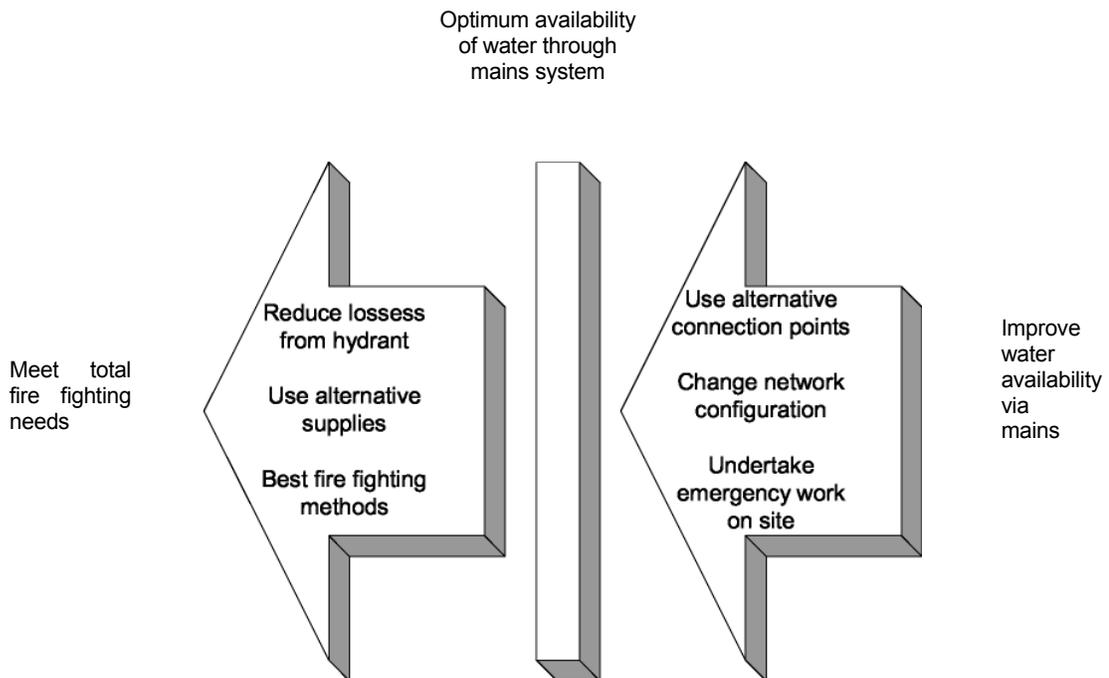


Figure 2 – Provision of water for fire fighting ~ optimum mains supply

Appendix 4 provides a list of points for consideration when such risk assessments are being carried out.

5.5 **Water distribution - network hydraulics**

In considering the requirements of water for fire fighting it should be recognised that distribution systems are subject to a number of external influences beyond the control of Water Companies. Effects due to the variation in demands during the day, and peaking factors caused by consumption variations throughout the year both effect the hydraulics of the system. Over the longer-term water availability is also affected by changes in domestic and industrial use as well as new connections. Short term demands from high industrial use and illegal use of hydrants also effect the capacity of the system.

5.6 **Communication needs during distribution changes**

a) Temporary changes

It is essential that a communication process be agreed which meets the reasonable expectations of the Fire and Rescue Service, providing information on planned and emergency changes, which have a significant impact on the anticipated ability to fight fires. This information will allow the Fire and Rescue Service, if appropriate, to amend their response to an event to match the conditions in the field. Focus should be on manageable and robust information systems, taking into account risk assessment.

b) Permanent changes

Prior to any significant permanent changes to the mains network, consultation should take place between the Water Company and the Fire and Rescue Service to consider the impact of any changes and the duties of both parties. There should also be a procedure for managing and dealing with the effects of any significant changes not previously notified.

5.7 **Sprinkler systems**

Sprinkler systems have typically been associated with larger commercial and industrial sites, but there is an emerging interest in the provision of sprinkler systems in domestic premises. There is increasing evidence that domestic sprinklers can be an important tool in preventing the loss of life and damage to property. Though not yet in widespread use the Fire and Rescue Service see benefits to the community in the installation of domestic sprinklers in new build and in retrofit to domestic properties of multiple occupancy.

The emphasis on early consultation is important, too many projects have stalled in the face of additional costs related to water supplies.

Whenever it is contemplated to install domestic sprinklers it is important that the principles in section 5.1 above are adopted. The expertise of the firefighter or promoter of the installation and those of the Water Company should be brought together at an early stage of the planning process. Then a joint process of balancing what water might be required with what may be made available and agreeing actions to "fill the gap", if one exists can be identified.

Any proposal for sprinkler systems should consider the principles, guidelines and conclusions set out "Guidance for the Supply of Water to Fire Sprinkler Systems" - jointly published by the Fire Protection Association, British Automatic Sprinkler Association Ltd and Water UK. <http://www.basa.org.uk/pdfs/publications/00000033.pdf>

6 Inspection, testing and abandonment of hydrants

6.1 Objectives and issues for consideration in formulating policy

The prime concerns of Water Companies is the impact of hydrant inspection, testing and flow testing activities by Fire and Rescue Services on the quality of water in their distribution systems supplied to customers. The prime concern of Fire and Rescue Services is the validity of hydrant testing and inspection and the cost of repairs. Local discussion on the relative benefits of these activities may help Companies and Fire and Rescue Services to review their policies.

The various objectives of Fire and Rescue Services and Water Companies in relation to fire hydrants are:

- To ensure that there is access to water for firefighting purposes.
- To maintain hydrants efficiently at minimum costs.
- To minimise, if not eliminate, the risk of disruption and discoloration of water supplies.

There is a balance of risk, cost and benefit to society in the continuing provision and maintenance of a hydrant on a distribution system. The Fire and Rescue Service trades off the benefit of being able to have access to water in the event of a fire against the ongoing costs of providing and maintaining the hydrant. The Water Company carries the risks of interruption or discoloration of supplies, but weighs them against its legal obligations and the benefit to society of being able to fight fires.

Both industries have an obligation to the public and their customers to ensure that they discharge their obligations effectively and efficiently. In seeking to achieve these objectives, Water Companies and Fire and Rescue Services should review the content of their policies in these areas. They should test jointly the validity of continuing historic practice against their current obligations and common objectives.

6.2 Risk assessment approach

Risk assessment is a term that both the Fire and Rescue Service and Water Companies are becoming ever more familiar with. The culture of the past which required the monotonous inspection and testing of equipment is now being superseded by the modern day risk assessment approach and this is very much encouraged through the National Guidance Document on the Provision of Water for Firefighting. The advantages of this approach being applied to the inspection and testing of hydrants will ensure that hydrants are monitored and maintained to meet the requirements of Section 57 of the Water Industry Act 1991 and at the same time provide the following benefits to both fire authorities and/or Water Companies.

- Significant reduction in hydrant repairs and maintenance budgets.
- Reduced administrative costs.
- Reduced risk of causing discoloration of drinking water.
- Resources redirected to more proactive tasks (e.g. community fire safety).
- Improved liaison arrangements between the organisations

6.3 Hydrant inspection and testing methodology

It is recommended that future inspection and testing of hydrants should consist of one or more of the three examinations:

- Above ground
- Below ground
- Wet pressure test

In line with the National Guidance Document on the Provision of Water for Firefighting, Fire and Rescue Services and Water Companies are encouraged to move away from the flow testing of hydrants and use other methodologies. This is not seen as a test for maintaining a hydrant and, for the reasons highlighted in Section 3, there is little purpose to this test. As a result, the flow test is not included in the recommended hydrant inspection and testing methodology.

Above Ground Examination

This will involve a visual inspection of the hydrant frame, cover, surface surrounding the hydrant and the hydrant indicator plate. The period between inspections should be risk assessed and take into account such likely factors of area location and risk, hydrant position, age, material, previous history, etc.

For example a hydrant situated in the pavement of a residential urban area free from vandalism, the Fire and Rescue Service may determine to inspect on a 1-2 year basis, whereas a hydrant set in a country lane that has regular farm traffic driving over it may need inspecting every 3-6 months to ensure it is clear of mud, etc. There could well be a case of community involvement in keeping hydrant plates and covers clear and visible.

Below Ground Examination

This will involve the visual inspection of the hydrant pit and the hydrant itself. Defects, which would affect the ability to deliver water for firefighting purposes or create a hazard should be reported immediately. The period between inspections should be risk assessed and take into account area, location and risk, hydrant position, age, material, previous history, etc.

For example a hydrant situated in the pavement of a residential urban area free of vandalism, the Fire and Rescue Service may determine that an inspection should be carried out every 2-4 years, whereas a hydrant that regularly silts up may require inspecting every 6 months.

Wet Pressure Test

The hydrant test is conducted by fitting a standpipe to the outlet and then partially opening the valve to allow a small amount of water to flow (equivalent to a domestic tap). A blank cap is then fitted in the standpipe head, or the valve in the head closed and the hydrant fully opened. Whilst under pressure, all joints are visually inspected for signs of leakage and only those leakage's that would impair the hydrant for firefighting purposes, or cause a hazard, should be reported to the Water Company. The hydrant should then be turned off slowly and without excessive force and the standpipe removed.

This test should only be carried out where there is reason to doubt the hydrant's integrity or that it is at an interval recommended by the hydrant manufacturer.

6.4 Hydrants following use by fire and rescue services at operational incidents

Following use at an operational incident, the opportunity should be taken to record the hydrant number/location and to note any defects, which would otherwise have been found during a hydrant examination highlighted above. This will reduce the time fire and rescue services have to spend inspecting hydrants and will provide a record of when the hydrant was last used. This may be particularly important should a third party have used or damaged the hydrant and the Fire and Rescue Service receive an invoice for the hydrant repair. Water Companies would also welcome being notified where a hydrant has been used at an operational incident, as it will aid their monitoring of usage and leakage.

6.5 Maintenance costs

Cost is driven by a number of factors, but includes the number of hydrants in a Fire and Rescue Service area, inspection and testing policy, direct maintenance practices and administrative procedures. There will be a wide range of local circumstances that contribute to current practice across the country. The following points may help Water Companies and Fire and Rescue Services to question and therefore improve current practice through liaison and agreement.

Number of Connected Hydrants

- Review through a risk assessed approach the number of hydrants required for a given area.
- Review policy for the provision of new hydrants.
- Consider a phased programme of abandonment spread over a number of years.
- Consider a policy to abandon hydrants as an alternative to repair.
- Consider opportunistic abandonment of hydrants during Water Company mains renewal or rehabilitation schemes.

Maintenance Practices

- Consider standard repair packages.
- Allocation of repair tasks between Water Companies and Fire and Rescue Services.
- Economies of scale of operations with other Companies or Fire and Rescue Services.
- Economies of scale through standardisation or joint purchasing.
- Reduce inspection and testing frequency based on a risk analysis.
- Timing of inspection and repair throughout the year to match available resources.

Administrative Procedures

- Preparation of accounts, e.g. monthly, quarterly, etc.
- Formulation of fixed prices for standard repairs.

6.6 Conclusion

The flow testing of hydrants provides little worthwhile information at significant risk of discoloration and interruption to water supplies. A regime of hydrant examination and where necessary wet testing on a risk assessed basis will ensure that hydrants are monitored to meet legislative requirements, bring about a significant reduction in costs, reduce dramatically the risk of contamination and interruption to water supplies and release Fire and Rescue Service resources for proactive preventative duties.

7 Securing water for fire fighting purposes on new sites

7.1 The developer of a housing site may requisition mains from the Water Companies to meet domestic needs under Section 41 of the Water Industry Act 1991.

Alternatively the developer may employ a self lay organisation (SLO) (also known as multi lay organisation) to design and/or lay the on-site water mains and connections. The SLO will have to be approved by the Water Company or be registered with the Water Industry Registration Scheme.

In some cases the fire and Rescue Service may be approached directly by the SLO for the request of new fire hydrants, rather than by the Water Company.

If additional capacity is required for fire fighting over and above that needed for supplying the domestic development or (under section 55 of the Water Industry Act 1991) the industrial development in question, then this will have to be the subject of an agreement negotiated between the Fire and Rescue Authority, the water undertaker, the developer and any SLO

The requisitioner of the main is required to meet the cost of providing the main.

8 Water quality

8.1 Any fire fighting or testing of fire hydrants has the potential to affect the chemical or microbiological quality of the water. The causes include disturbing sediment in the main by changes in the rate of flow and flow reversal and negative pressures in the main, which could suck in contaminated water from the surrounding soil. It is essential therefore that:

- a) The Water Companies should liaise with Local Fire and Rescue Authorities ensuring that they are fully aware of the implications of discoloured water incidents. A communication process should be agreed which provides the Water Company with the opportunity to consider whether anything can be done operationally to minimise the risk of supplying discoloured water to its customers.
- b) In considering requests for additional mains capacity the optimum combination for the provision of water for fire fighting should be sought which minimises the need for oversizing and the potentially adverse impact on microbiological water quality caused by stagnation.

The local liaison process should consider the issues around the testing of hydrants, training and the design and maintenance of Fire and Rescue Service equipment (see e) below) that may have an impact on water quality.

- c) Fire and Rescue Service and Water Companies should consider the value to be gained from the testing of hydrants and other methodologies which do not involve the risk of water discolouration and as such should preferably be used.
- d) Service Reservoirs must not be used for fire fighting purposes. It may however be necessary to consider the installation of a fire hydrant at the boundary of the same reservoir site.
- e) Cross contamination of the mains supply with contaminated water must be avoided. It is therefore important that equipment is adequately maintained and kept clean after use.
- f) No actions or equipment should create sub-atmospheric pressures in the mains..

9 Disputes procedure

9.1 It is essential for local arrangements to include an agreed dispute procedure for resolving matters surrounding the provision of water for fire fighting. A model for consideration in the formulation of such a procedure is suggested at Appendix 7.

It is recognised that if agreement cannot be reached any aggrieved party has the right to consider the legal process, however the aim of this guidance document is to prevent such an occurrence.

Appendix 1

Extracts from the Fire and Rescue Services Act 2004

Provision of fire services.

7 Fire-fighting

- (1) A fire and rescue authority must make provision for the purpose of-
- (a) extinguishing fires in its area, and
 - (b) protecting life and property in the event of fires in its area.
- (2) In making provision under subsection (1) a fire and rescue authority must in particular-
- (a) secure the provision of the personnel, services and equipment necessary efficiently to meet all normal requirements;
 - (b) secure the provision of training for personnel;
 - (c) make arrangements for dealing with calls for help and for summoning personnel;
 - (d) make arrangements for obtaining information needed for the purpose mentioned in subsection (1);
 - (e) make arrangements for ensuring that reasonable steps are taken to prevent or limit damage to property resulting from action taken for the purpose mentioned in subsection (1).

38 Duty to secure water supply etc

- (1) A fire and rescue authority must take all reasonable measures for securing that an adequate supply of water will be available for the authority's use in the event of fire.
- (2) A fire and rescue authority may use any suitable supply of water for the purposes of extinguishing a fire or protecting life or property in the event of a fire (but must pay reasonable compensation for the water).
- (3) Subsection (2) is subject to-
- (a) an agreement under section 39 or 41;
 - (b) section 147 of the Water Industry Act 1991 (c. 56) (charging for emergency use of water).

39 Supply of water by water undertakers

- (1) A fire and rescue authority may enter into an agreement with a water undertaker for the purposes of section 38(1).
- (2) An agreement under subsection (1) may include terms as to payment to be made to the undertaker, subject to section 147 of the Water Industry Act 1991 (c. 56) (charging for emergency use of water).
- (3) A water undertaker must enter into any agreement reasonably proposed by a fire and rescue authority under subsection (1).
- (4) An obligation of a water undertaker under an agreement under subsection (1), or under subsection (3), is enforceable by the Secretary of State under section 18 of the Water Industry Act 1991 (orders for securing compliance).

40 Emergency supply by water undertaker

- (1) If a fire and rescue authority requests a water undertaker to provide a supply and pressure of water for the purposes of extinguishing a fire that is greater than the undertaker would otherwise provide, the undertaker must take all necessary steps in order to do so.
- (2) For the purposes of complying with its obligation under subsection (1) a water undertaker may shut off the water from the mains and pipes in any area.
- (3) No authority or person is liable to any penalty or claim arising because of anything done by a water undertaker in complying with its obligation under subsection (1).
- (4) A water undertaker commits an offence if, without reasonable excuse, it fails to take any step which it is obliged to take under subsection (1).
- (5) A water undertaker guilty of an offence under subsection (4) is liable on summary conviction to a fine not exceeding level 5 on the standard scale.

41 Supply by other persons

For the purposes of section 38(1), a fire and rescue authority may enter into an agreement-

- (a) to secure the use of water under the control of a person other than a water undertaker;
- (b) to improve access to any such water;
- (c) to lay and maintain pipes and to carry out other works in connection with the use of such water.

42 Fire hydrants

- (1) A water undertaker must cause the location of every fire hydrant provided by it to be clearly indicated by a notice or distinguishing mark.
- (2) A water undertaker may place such a notice or mark on a wall or fence adjoining a highway or public place.
- (3) The expenses incurred by a water authority under subsection (1) in relation to a fire hydrant are to be borne by the fire and rescue authority in whose area the hydrant is located.
- (4) The Secretary of State may make regulations providing for uniformity in fire hydrants provided by water undertakers and in the notices or marks indicating their location.
- (5) An obligation of a water undertaker under subsection (1), or regulations under subsection (4), is enforceable by the Secretary of State under section 18 of the Water Industry Act 1991 (c. 56) (orders for securing compliance).
- (6) A person commits an offence if he uses a fire hydrant otherwise than-
- (a) for the purposes of fire-fighting or for any other purposes of a fire and rescue authority, or
 - (b) for any purpose authorised by the water undertaker or other person to whom the hydrant belongs.
- (7) A person commits an offence if he damages or obstructs a fire hydrant, otherwise than in consequence of use for the purposes mentioned in subsection (6).
- (8) A person guilty of an offence under subsection (6) or (7) is liable on summary conviction to a fine not exceeding level 2 on the standard scale.

43 Notice of works affecting water supply and fire hydrants

- (1) A person who proposes to carry out works for the purpose of supplying water to any part of the area of a fire and rescue authority must give at least 6 weeks' notice in writing to the authority.
- (2) A person who proposes to carry out works affecting a fire hydrant must give at least 7 days' notice in writing to the fire and rescue authority in whose area the hydrant is situated.
- (3) If it is not practicable for a person to give notice as required by subsection (1) or (2), he is to be regarded as having given the notice required by that subsection if he gives notice as soon as practicable.
- (4) A person commits an offence if, without reasonable excuse, he fails to give notice as required by subsection (1) or (2).
- (5) A person guilty of an offence under subsection (4) is liable on summary conviction to a fine not exceeding level 5 on the standard scale.

44 Powers of fire-fighters etc in an emergency etc

N.B This extract only includes the parts of S.44 dealing with fires

- (1) An employee of a fire and rescue authority who is authorised in writing by the authority for the purposes of this section may do anything he reasonably believes to be necessary-
 - (a) if he reasonably believes a fire to have broken out or to be about to break out, for the purpose of extinguishing or preventing the fire or protecting life or property;
- (3) A person commits an offence if without reasonable excuse he obstructs or interferes with an employee of a fire and rescue authority taking action authorised under this section.
- (4) A person guilty of an offence under subsection (3) is liable on summary conviction to a fine not exceeding level 3 on the standard scale.

Appendix 2

Extracts from English/Welsh water legislation (Water Industry Act 1991)

General duty to maintain water supply system etc.

37.—(1) It shall be the duty of every water undertaker to develop and maintain an efficient and economical system of water supply within its area and to ensure that all such arrangements have been made—

- (a) for providing supplies of water to premises in that area and for making such supplies available to persons who demand them; and
- (b) for maintaining, improving and extending the water undertaker's water mains and other pipes, as are necessary for securing that the undertaker is and continues to be able to meet its obligations under this Part.

(2) The duty of a water undertaker under this section shall be enforceable under section 18 above

- (a) by the Secretary of State; or
- (b) with the consent of or in accordance with a general authorisation given by the Secretary of State, by the Authority.

(3) The obligations imposed on a water undertaker by the following Chapters of this Part, and the remedies available in respect of contraventions of those obligations, shall be in addition to any duty imposed or remedy available by virtue of any provision of this section or section 38 below and shall not be in any way qualified by any such provision.

Standards of performance in connection with water supply

38.—(1) For the purpose:

- (a) of facilitating the determination of the extent to which breaches of the obligations imposed by the following provisions of this Part are to amount to breaches of the duty imposed by section 37 above; or
- (b) of supplementing that duty by establishing overall standards of performance in relation to that duty,

the Secretary of State may, in accordance with section 39 below, by regulations provide for contraventions of such requirements as may be prescribed to be treated for the purposes of this Act as breaches of that duty.

(2) The Secretary of State may, in accordance with section 39 below, by regulations prescribe such standards of performance in connection with the provision of supplies of water as, in his opinion, ought to be achieved in individual cases.

(3) Regulations under subsection (2) above may provide that if a water undertaker fails to meet a prescribed

standard it shall pay such amount as may be prescribed to any person who is affected by the failure and is of a prescribed description.

(4) Without prejudice to the generality of the power conferred by subsection (2) above, regulations under the subsection may—

(a) include in a standard of performance a requirement for a water undertaker, in prescribed circumstances, to inform a person of his rights by virtue of any such regulations;

(b) provide for any dispute under the regulations to be referred by either party to the dispute to the Director;

(c) make provision for the procedure to be followed in connection with any such reference and for the Director's determination on such a reference to be enforceable in such manner as may be prescribed;

(d) prescribe circumstances in which a water undertaker is to be exempted from requirements of the regulations.

(5) Where the Director determines any dispute in accordance with regulations under this section he shall, in such manner as may be specified in the regulations, give his reasons for reaching his decision with respect to the dispute.

Procedure for regulations under section 38.

39.—(1) The Secretary of State shall not make any regulations under section 38 above unless—

(a) the Director has made to the Secretary of State a written application complying with subsection (2) below;

(b) the Secretary of State is satisfied that a copy of the application has been served by the Director—

on every water undertaker specified in the application; and

(ii) on persons or bodies appearing to the Secretary of State to be representative of persons appearing likely to be affected by the regulations;

(c) such period as the Secretary of State considers appropriate has allowed for the making—

(i) by the Director; and by any affected water undertaker or person or body on whom copy of the application has been served under paragraph (b)(ii) above of representations or objections with respect to the Director's proposals and any modifications proposed by the Secretary of State; and

(d) the Secretary of State has considered the summary mentioned in subsection (2)(bb) below, the Director's reasons for his proposals and every representation or objection which has been duly made with respect to those proposals, or any proposed modifications of those proposals, and has not been withdrawn.

(1A) Before making an application to the Secretary of State under this section the Director shall arrange for such research as he considers appropriate with a view to discovering the views of a representative sample of persons likely to be affected and consider the results.

(2) An application made by the Director to the Secretary of State complies with this subsection if it—

(a) sets out draft provisions proposed by the Director for inclusion in regulations under section 38 above;

(b) specifies the water undertaker or undertakers in relation to which it is proposed those provisions should apply; and

(bb) is accompanied by a written summary of the results of the research carried out in accordance with subsection (1A) above; and

(c) summarises the Director's reasons for his proposals.

(3) The Secretary of State shall not make any regulations under section 38 above except where—

(a) the only provisions of the regulations are the provisions proposed by the Director in his application or those provisions with such modifications as the Secretary of State considers appropriate; and

(b) each of the modifications (if any) of the Director's proposals to which effect is given by the regulations is a modification the proposal to make which has been notified—

(i) to the Director; and

(ii) to any water undertaker appearing to the Secretary of State to be likely to be affected by the modifications.

Duty to comply with water main requisition.

41.—(1) It shall be the duty of a water undertaker (in accordance with section 44 below) to provide a water main to be used for providing such supplies of water to premises in a particular locality in its area as (so far as those premises are concerned) are sufficient for domestic use, if—

(a) the undertaker is required to provide the main by a notice served on the undertaker by one or more of the persons who under subsection (2) below are entitled to require the provision of the main for that locality;

(b) the premises in that locality to which those supplies would be provided by means of that main are—

(i) premises consisting in buildings or part of buildings; or

(ii) premises which will so consist when proposals made by any persons for the erection of buildings or parts of buildings are carried out; and

(c) the conditions specified in section 42 below are satisfied in relation to that requirement.

(2) Each of the following persons shall be entitled to require the provision of a water main for any locality, that is to say—

(a) the owner of any premises in that locality;

(b) the occupier of any premises in that locality;

(c) any local authority within whose area the whole or any part of that locality is situated;

(d) where the whole or any part of that locality is situated in a new town, within the meaning of the New Towns Act 1981—

- (i) the Commission for the New Towns; and
- (ii) the Development Board for Rural Wales or the development corporation for the new town, according to whether or not the new town and is situated within the area for which that Board is for the time being responsible;

and

(iii) where the whole or any part of that locality is situated within an area designated as an urban development area under Part XVI of the Local Government, Planning and Land Act 1980, the development corporation for the new town'.

(3) The duty of a water undertaker under this section to provide a water main shall be owed to the person who required the provision of the main, or as the case may be, to each of the persons who joins in doing so.

(4) Where a duty is owed by virtue of subsection (3) above to any person, any breach of that duty which causes that person to sustain loss or damage shall be actionable at the suit of that person; but, in any proceedings brought against a water undertaker in pursuance of this subsection, it shall be a defence for the undertaker to show that it took all reasonable steps and exercised all due diligence to avoid the breach.

(5) In this section "local authority", in relation to the Inner Temple and the Middle Temple, includes, respectively, the Sub-Treasurer of the Inner Temple and the Under-Treasurer of the Middle Temple.

Supplies for non-domestic purposes

55.—(1) This section applies where the owner or occupiers of any premises in the area of a water undertaker requests the undertaker to provide a supply of water to those premises and—

- (a) the premises are premises which do not consist in the whole or any part of a building; or
- (b) he requested supply is for purposes other than domestic purposes.

(2) Where this section applies, it shall be the duty of the water undertaker, in accordance with such terms and conditions as may be determined under section 56 below—

- (a) to take any such steps as may be so determined in order to enable the undertaker to provide the requested supply; and
- (b) having taken any such steps, to provide that supply.

(3) A water undertaker shall not be required by virtue of this section to provide a new supply to any premises, or to take any steps to enable it to provide such a supply, if the provision of that supply or the taking of those steps would—

(a) require the undertaker, in order to meet all its existing obligations to supply water for domestic or other purposes, together with its probable future obligations to supply buildings and parts of buildings with water for domestic purposes, to incur unreasonable expenditure in carrying out works; or

(b) otherwise put at risk the ability of the undertaker to meet any of the existing or probable future obligations mentioned in paragraph (a) above.

(4) A water undertaker shall not be required by virtue of this section to provide a new supply to any premises, or to take any steps to enable it to provide such a supply, if there is a contravention in relation to the water fittings used or to be used in connection with—

- (a) the supply of water to those premises; or
- (b) the use of water in those premises,

of such of the requirements of regulations under section 74 below as are prescribed for the purposes of this subsection.

Where—

(a) a request has been made by any person to a water undertaker for the purposes of subsection (2) above; and

(b) the steps which the undertaker is required to take by virtue of that request include steps for the purpose of obtaining any necessary authority for, or agreement to, any exercise by the undertaker of any of its powers or the carrying out by the undertaker of any works.
the failure of the undertaker to acquire the necessary authority or agreement shall not affect the liability of that person, under any terms or condition in accordance with which those steps are taken, to reimburse the undertaker in respect of some or all of the expenses incurred by the undertaker in taking those steps.

(6) Nothing in this section shall impose any duty on a water undertaker to provide a supply of water to any premises during any period during which it is reasonable for the supply of water to those premises to be cut off or reduced for the purposes of carrying out of any necessary works.

(7) The duty of a water undertaker to supply water under this section at the request of any person, and any terms and condition determined under section 56 below in default of agreement between the undertaker and that person, shall have effect as if contained in such an agreement.

(8) Except so far as otherwise provided by the terms and conditions determined under section 56 below in relation to any supply, the duties of a water undertaker under this section shall have effect subject to the provisions of sections 60 to 63 and 75 below.

Duty to provide a supply of water etc. for fire-fighting

57.—(1) It shall be the duty of a water undertaker to allow any person to take water for extinguishing fires from any of its water mains or other pipes on which a fire-hydrant is fixed.

(2) Every water undertaker shall, at the request of the fire and rescue authority concerned, fix fire-hydrants on its water mains (other than its trunk mains) at such places as may be most convenient for affording a supply of water for extinguishing any fire which may break out within the area of the undertaker.

(3) It shall be the duty of every water undertaker to keep every fire hydrant fixed on any of its water mains or other pipes in good working order and, for that purpose, to replace any such hydrant when necessary.

(4) It shall be the duty of a water undertaker to ensure that a fire and rescue authority has been supplied by the undertaker with all such keys as the authority may require for the fire-hydrants fixed on the water mains or other pipes of the undertaker.

(a) Where a fire hydrant is removed (other than at the request of the fire and rescue authority concerned) by a water undertaker in the course of carrying out works in relation to any of its water mains or other pipes, the cost of replacing the fire hydrant shall be borne by the undertaker.

(5) Subject to subsection (5A) and section 58(3) below, the expenses incurred by a water undertaker in complying with its obligations under subsections (2) to (4) above shall be borne by the fire and rescue authority concerned.

(5A) Where a fire hydrant is damaged as the result of any use made of it with the authority of a water undertaker, other than use for the purposes of fire fighting or for any other purposes of a fire and rescue authority, the fire and rescue authority is not liable for the cost of repairing or replacing the hydrant.

(6) Nothing in this section shall require a water undertaker to do anything which it is unable to do by reason of the carrying out of any necessary works.

(7) The obligations of a water undertaker under this section shall be enforceable under section 18 above by the Secretary of State.

(8) In addition, where a water undertaker is in breach of its obligations under this section, the undertaker shall be guilty of an offence and liable:

(a) on summary conviction, to a fine not exceeding the statutory maximum;

(b) on conviction on indictment to a fine.

(9) In any proceedings against any water undertaker for an offence under subsection (8) above it shall be a defence for that undertaker to show that it took all reasonable steps and exercised all due diligence to avoid the commission of the offence.

(10) In this section "fire and rescue authority" has the same meaning as in the Fire and Rescue Services Act 2004.

Specially requested fire-hydrants

58.—(1) A water undertaker shall, at the request of the owner or occupier of any factory or place of business, fix a fire-hydrant, to be used for extinguishing fires and not other purposes, at such place on any suitable water main or other pipe of the undertaker as is near as conveniently possible to that factory or place of business.

(2) For the purposes of subsection (1) above a water main or other pipe is suitable, in relation to a factory or place of business, if—

(a) it is situated in a street which is in or near to that factory or place of business; and

(b) it is of sufficient dimensions to carry a hydrant and is not a trunk main.

(3) Subsection (5) of section 57 above shall not apply in relation to expenses incurred in compliance, in relation to a specially requested fire-hydrant, with the obligations under subsections (3) and (4) of that section.

(4) Any expenses incurred by a water undertaker

(a) in complying with its obligations under subsection (1) above; or

(b) in complying, in relation to a specially requested fire-hydrant, with its obligations under section 57(3) and (4) above,

shall be borne by the owner or occupier of the factory or place of business in question, according to whether the person who made the original request for the hydrant did so in his capacity as owner or occupier.

(4a) Where a specially requested fire hydrant is removed (other than at the request of the owner or occupier of the factory or place of business in question) by a water undertaker in the course of carrying out works in relation to any of its water mains or other pipes, the cost of replacing the fire hydrant shall be borne by the undertaker

(5) Subsection (6) to (9) of section 57 above shall apply in relation to the obligations of a water undertaker under this section as they apply to the obligations of a water undertaker under that section.

(6) In this section—

“factory” has the same meaning as in the Factories Act 1961; and

“specially requested fire-hydrant” means a fire-hydrant which

(a) is fixed on a water main or other pipe of a water undertaker; and

(b) was fixed on that main or pipe (whether before or after it became such a main or pipe under the Water Act 1989) in pursuance of a request made by the owner or occupier of a factory or place of business.

Duties of undertakers as respects constancy and pressure

65.—(1) Subject to the following provisions of this section, it shall be the duty of a water undertaker to cause the water in such of its water mains and other pipes as

(a) are used for providing supplies of water for domestic purposes; or;

(b) have fire-hydrants fixed on them,

to be laid on constantly and at such a pressure as will cause the water to reach to the top of the topmost storey of every building within the undertaker's area.

(2) Nothing in subsection (1) above shall require a water undertaker to provide a supply of water at a height greater than that to which it will flow by gravitation through its water mains from the service reservoir or tank from which that supply is taken.

(3) For the purposes of this section a water undertaker shall be entitled to choose the service reservoir or tank from which any supply is to be taken.

(4) Nothing in subsection (1) above shall impose any duty on a water undertaker to maintain the constancy or pressure of any supply of water during any period during which it is reasonable for that supply to be cut off or reduced for the purposes of the carrying out of any necessary works.

(5) The Secretary of State may by order modify the application of the preceding provisions of this section in relation to any water undertaker.

(6) The Secretary of State shall not make an order under subsection (5) above except—

(a) in accordance with Schedule 5 to this Act; and

(b) on an application made in accordance with that Schedule by the Director or by the water undertaker in relation to which the order is made.

(7) Subject to subsection (6) above, the power of the Secretary of State to make an order under subsection (5) above shall be exercisable by statutory instrument subject to annulment in pursuance of a resolution of either House of Parliament.

(8) An order under subsection (5) above may

- (a) require the payment of compensation by a water undertaker to persons affected by the order;
- (b) make different provision for different cases, including different provision in relation to different persons, circumstances or localities; and
- (c) contain such supplemental, consequential and transitional provision as the Secretary of State considers appropriate.

(9) The obligations of a water undertaker under this section shall be enforceable under section 18 above by the Director.

(10) In addition, where a water undertaker is in breach of a duty under this section, the undertaker shall be guilty of an offence and liable—

- (a) on summary conviction, to a fine not exceeding the statutory maximum;
- (b) on conviction on indictment, to a fine.

(11) In any proceedings against any water undertaker for an offence under subsection (10) above it shall be a defence for that undertaker to show that it took all reasonable steps and exercised all due diligence to avoid the commission of the offence.

Charging for emergency use of water

147.—(1) Notwithstanding anything in section 38(2) of the Fire and Rescue Services Act 2004, or anything in section 142 or in any scheme under section 143 or in any agreement as to charges in respect of any supply of water, no charge may be made by any water undertaker in respect of—

- (a) water taken for the purpose of extinguishing fires or taken by a the Fire and Rescue Authority for any other emergency purposes;
- (b) water taken for the purpose of testing apparatus installed or equipment used for extinguishing fires or for the purpose of training persons for fire-fighting; or
- (c) the availability of water for any purpose mentioned in paragraph (a) or (b) above.

(2) This section shall not prevent the making of charges in respect of work carried out at the request of or for the benefit of any person receiving a supply of water for the purposes mentioned in paragraph (a) or (b) of subsection (1) above.

(3) This section shall not have the effect, where any water is used or made available for any of the purposes mentioned in paragraph (a) or (b) of subsection (1) above, or requiring a reduction in the charges imposed in respect of the provision for other purposes of the supply from which that water is taken.

(4) In this section “fire and rescue authority” has the same meaning as in the Fire and Rescue Services Act 2004.

Offences of interference with works etc

174.—(1) (1) Subject to subsection (2) below, if any person without the consent of the water undertaker –

(a) intentionally or recklessly interferes with any resource main, water main or other pipe vested in any water undertaker or with any structure, installation or apparatus belonging to any water undertaker, or

(b) by any act or omission negligently interferes with any such main or other pipe or with any such structure, installation or apparatus so as to damage it or so as to have an effect on its use or operation,

that person shall be guilty of an offence and liable, on summary conviction, to a fine not exceeding level 3 on the standard scale.

(1A) Subject to subsection (2) below, if any person without the consent of the licensed water supplier –

(a) intentionally or recklessly interferes with any pipe or any structure, installation or apparatus which –

(i) is vested in any licensed water supplier (in the case of a pipe) or belongs to any such supplier (in any other case); and

(ii) is used in connection with the carrying on by the supplier of the activities authorised by its licence; or

(b) by any act or omission negligently interferes with any such pipe or with any such structure, installation or apparatus so as to damage it or so as to have an effect on its use or operation,

that person shall be guilty of an offence and liable, on summary conviction, to a fine not exceeding level 3 on the standard scale.

(2) A person shall not be guilty of an offence under subsection (1) or (1A) above –

(a) by reason of anything done in an emergency to prevent loss or damage to persons or property; or

(b) by reason of his opening or closing the stopcock fitted to a service pipe by means of which water is supplied to any premises by a water undertaker or licensed water supplier if –

(i) he has obtained the consent of every consumer whose supply is affected by the opening or closing of that stopcock or, as the case may be, of every other consumer whose supply is so affected; and

(ii) in the case of opening a stopcock, subsection (2A) below applies.

(2A) This subsection applies –

(a) in the case of a stopcock belonging to a water undertaker, if the stopcock was closed otherwise than by the undertaker;

(b) in the case of a stopcock belonging to a licensed water supplier –

(i) if the stopcock was closed otherwise than by the supplier; or

(ii) if the stopcock was closed by the supplier and the person in question for the purposes of subsection (2) above is the water undertaker whose supply system is used for the purpose of the supply made by the supplier,

and in this subsection the reference to the supply system of a water undertaker shall be construed in accordance with section 17B(5) above.

(3) Any person who, without the consent of the water undertaker –

(a) attaches any pipe or apparatus –

(i) to any resource main, water main or other pipe vested in a water undertaker; or

(ii) to any service pipe which does not belong to such an undertaker but which is a pipe by means of which water is supplied by such an undertaker to any premises;

(b) makes any alteration in a service pipe by means of which water is so supplied, or in any apparatus attached to any such pipe; or

(c) subject to subsection (4) below, uses any pipe or apparatus which has been attached or altered in contravention of this subsection,

shall be guilty of an offence and liable, on summary conviction, to a fine not exceeding level 3 on the standard scale.

(3A) Any person who, without the consent of the licensed water supplier –

(a) attaches any pipe or apparatus to any pipe which is –

(i) vested in a licensed water supplier; and

(ii) used in connection with the carrying on by the supplier of the activities authorised by its licence;

(b) attaches any pipe or apparatus to any service pipe which does not belong to such a supplier or a water undertaker but which is a pipe by means of which water is supplied by such a supplier to any premises;

(c) makes any alteration in a service pipe by means of which water is so supplied, or in any apparatus attached to any such pipe; or

(d) subject to subsection (4) below, uses any pipe or apparatus which has been attached or altered in contravention of this subsection,

shall be guilty of an offence and liable, on summary conviction, to a fine not exceeding level 3 on the standard scale.

(4) In proceedings against any person for an offence by virtue of paragraph (c) of subsection (3) above or paragraph (d) of subsection (3A) above it shall be a defence for that person to show that he did not know, and had no grounds for suspecting, that the pipe or apparatus in question had been attached or altered as mentioned in subsection (3) or (3A) above (as the case may require).

(5) If any person wilfully or negligently injures or suffers to be injured any water fitting belonging to a water undertaker, he shall be guilty of an offence and liable, on summary conviction, to a fine not exceeding level 1 on the standard scale.

(5A) If any person wilfully or negligently injures or suffers to be injured any water fitting which –

(a) belongs to a licensed water supplier; and

(b) is used in connection with the carrying on by the supplier of the activities authorised by its licence,

he shall be guilty of an offence and liable, on summary conviction, to a fine not exceeding level 1 on the standard scale.

(6) An offence under subsection (1) or (3) above shall constitute a breach of a duty owed to the water undertaker in question; and any such breach of duty which causes the undertaker to sustain loss or damage shall be actionable at the suit of the undertaker.

(7) The amount recoverable by virtue of subsection (6) above from a person who has committed an offence under subsection (3) above shall include such amount as may be reasonable in respect of any water wasted, misused or improperly consumed in consequence of the commission of the offence.

(8) A water undertaker may –

(a) do all such work as is necessary for repairing any injury done in contravention of subsection (5) above; and

(b) recover the expenses reasonably incurred by the undertaker in doing so from the offender summarily as a civil debt.

(8A) In this section “consumer” –

(a) in relation to a supply of water provided by a water undertaker to any premises, means a person who is for the time being the person on whom liability to pay charges to the undertaker in respect of that supply of water would fall;

(b) in relation to a supply of water provided by a licensed water supplier to any premises, means a person who is for the time being the person on whom liability to pay charges to the supplier in respect of that supply of water would fall.

(9) In this section, “water fitting” has the same meaning as in Part III of this Act; and in subsection (1) above the references to apparatus belonging to a water undertaker do not include references to any meter which belongs to such an undertaker and is used by it for the purpose of determining the amount of any charges which have been fixed by the undertaker by reference to volume.

Appendix 3

Points requiring consideration when drafting local arrangements

When entering into discussions on local arrangements the following points are a guide to suggested topics.

- 1 A framework for liaison at all levels and circumstances including:
 - a) Routine liaison and contact points.
 - b) Emergency liaison including procedures for increasing flows during emergencies.
 - c) Liaison to facilitate review of both routine and emergency performance.
- 2 Procedures for dealing with planning, new developments and redevelopment sites including sharing of information and consulting with Local Authorities.
- 3 Procedures for the notification of intention to carry out work both temporary and permanent changes including how previous significant changes not notified should be managed.
- 4 Planning hydrant installations on existing, new, renewed and rehabilitated mains.
- 5 Water Company washouts.
- 6 Installation, inspection and adoption procedures for hydrants.
- 7 Hydrant inspections and tests.
- 8 Hydrant maintenance.
- 9 Flow requirements for fire fighting.
- 10 Use of water for fire fighting including procedures for notification of incidents that could impinge on water quality.
- 11 Statutory notices.
- 12 Use of hydrants for non-fire fighting purposes, including illegal use and how this may be controlled.
- 13 Charges and guarantees for work undertaken by Water Companies.
- 14 Abandonment of hydrants.
- 15 Disputes procedure.

Appendix 4

Points requiring consideration when securing the provision of water for fire fighting

The Fire and Rescue Service is required to secure water from either public water mains or other sources such as ponds, lakes, rivers etc. to effectively fight fires under normal circumstances. For fires beyond the capability of a single hydrant the following should be considered:

1 Fire and rescue service considerations

- 1.1 The current supplies of water available from the water undertakers in close proximity to the risk under all reasonably foreseeable demand circumstances.
- 1.2 The current supplies of water available from the water undertakers within the parameters of a fire service water relay.
- 1.3 The supplies that could be made available by the water undertakers increasing the pressure/flow in the cases of 1.1 and 1.2, bearing in mind the timescales of increasing the flows, the risk of increased flows causing discoloured water to consumers and the methodology.
- 1.4 The current supplies of open water available in close proximity to the risk, bearing in mind the seasonal nature of some open water supplies.
- 1.5 The current supplies of open water available within the parameters of a fire service relay, bearing in mind the seasonal nature of some open water supplies.
- 1.6 Other alternative methods such as ferrying water.

2 Water company considerations

Water companies should consider the following points when assessing how best they can assist in closing the gap.

- 2.1 Fire and Rescue Service flow requirements.
- 2.2 Risk area/address.
- 2.3 System capability with no alterations.
- 2.4 System capability with alterations.
- 2.5 System sustainability in hours and procedures to be taken when service reservoirs are at risk of being drained.
- 2.6 Customers/address that will fall below target pressure levels in the event of drawing maximum flow.
- 2.7 Sensitive Customers e.g. Dialysis patients.
- 2.8 Valving schedules.
- 2.9 Is the area pressure reduced and by what type of valve?

3 Joint considerations for securing water

- 3.1 Maximise the availability of water through the existing distribution system and trunk mains systems to a point as close as possible to the risk area or site allowing the Fire and Rescue Service to operate defined apparatus taking into account the risk of discoloured water.
- 3.2 Consider modification to the configuration of the distribution system to increase the volume of water available.
- 3.3 Identify the location of hydrants, which may need flow restriction devices.
- 3.4 Water Companies should be willing to consider alternative systems for connecting Fire and Rescue Service equipment to the distribution system, taking regard of the need to safeguard the health of the customers.
- 3.5 Establish an emergency call out procedure between the two parties, which minimises the response time and maximises the availability of water in the area.
- 3.6 Minimise the effects of losses from the point of delivery through the Fire and Rescue Service apparatus.
- 3.7 Consider sprinkler systems.

Appendix 5

Guidelines on flow requirements for fire fighting

The following flows represent the ideal requirements (see Section 5.1 and Appendix 4 for guidance on how these flows should be considered) on new developments and during permanent system changes. In some locations the existing distribution system will not allow the delivery of such flows.

1 Housing

Housing developments with units of detached or semidetached houses of not more than two floors should have a water supply capable of delivering a minimum of eight litres per second through any single hydrant.

Multi occupied housing developments with units of more than two floors should have a water supply capable of delivering a minimum of 20 to 35 litres per second through any single hydrant on the development.

2 Transportation

Lorry/coach parks - multi-storey car parks - service stations-

All of these amenities should have a water supply capable of delivering a minimum of 25 litres per second through any single hydrant on the development or within a vehicular distance of 90 metres from the complex.

3 Industry

In order that an adequate supply of water is available for use by the Fire and Rescue Authority in case of fire it is recommended that the water supply infrastructure to any industrial estate is as follows with the mains network on site being normally at least 150 mm nominal diameter—

- Up to one hectare 20 litres per second.
- One to two hectares 35 litres per second.
- Two to three hectares 50 litres per second.
- Over three hectares 75 litres per second.

4 Shopping, offices, recreation and tourism

Commercial developments of this type should have a water supply capable of delivering a minimum flow of 20 to 75 litres per second to the development site.

5 Education, health and community facilities

5.1 Village halls—

Should have a water supply capable of delivering a minimum flow of 15 litres per second through any single hydrant on the development or within a vehicular distance of 100 metres from the complex.

5.2 Primary schools and single storey health centres—

Should have a water supply capable of delivering a minimum flow of 20 litres per second through any single hydrant on the development or within a vehicular distance of 70 metres from the complex.

5.3 Secondary schools, colleges, large health and community facilities—

Should have a water supply capable of delivering a minimum flow of 35 litres per second through any single hydrant on the development or within a vehicular distance of 70 metres from the complex.

APPENDIX 6

Fire Safety - Contribution on Building Regulations

The Building Regulations 2000 (as amended) apply in England & Wales to building work, typically the erection, extension or material alteration of a building. Separate legislation applies in Scotland and Northern Ireland.

They seek to ensure reasonable standards of health and safety for persons in or about buildings, by providing functional (ie performance-based) requirements for building design and construction in terms of what is appropriate, reasonable or adequate.

Fire safety is covered in Part B, the requirements of which are broadly to provide appropriate means of early warning of fire and appropriate means of escape; to reasonably inhibit the spread of fire within the building and from one building to another; and to provide reasonable access and facilities for the Fire and Rescue Service.

Approved Document B (AD B) gives practical guidance on one way of meeting the requirements of the Building Regulations with respect to Part B, **including guidance on the provision of sprinklers and fire mains**. It is for the Building Control Body to decide, in consultation with the relevant Fire and Rescue Authority where necessary, what will be required to meet the functional requirements of the Regulations on a case by case basis.

Copies of the Building Regulations and AD B may be found on the Department for Communities and Local Government (DCLG) website at: www.communities.gov.uk/buildingregs

[At the time of writing Part B and AD B were under review. The DCLG hope to publish a revised version towards the end of 2006 with the intention that it will come into force in April 2007.]

Appendix 7

Model disputes procedure

- 1 In the event of a dispute between either party, attempts in the first instance must be made to resolve the matter locally at the appropriate level.
- 2 If local liaison fails to satisfy either party and without prejudice to either party's legal rights and obligations, the matter may then be referred to the Regional Liaison Group for joint group resolution.
- 3 If either party remains aggrieved at the guidance given, they may refer the matter to the National Liaison Group. The role of the National Group is not to arbitrate but to facilitate resolution at the Regional Level by encouraging constructive discussion and debate so that they are able to resolve their own disputes.
- 4 During all the above stages, in the interest of achieving timely and satisfactory resolution, publicity should be avoided. Any media involvement has the risk of either distortion through lack of all the facts or being exploited by pressure groups to further their own interests.

Appendix 8

Glossary of terms

Authority

The Water Services Regulation Authority (Ofwat) is the economic regulator of the water and sewerage industry in England and Wales. Before 1 April 2006 these functions rested with the Director General of Water Services.

CFOA

Chief Fire Officers' Association.

Cross contamination

Introduction of water of unknown quality into the water mains network.

DCLG

Department for Communities and Local Government.

DEFRA

Department for Environment, Food and Rural Affairs.

DG reference levels of Service

Standards of customer service, e.g. minimum pressure at the boundary to a domestic customers property, set by Ofwat.

Ferrying Water

Transporting water from a remote source to the scene of an emergency by the use of fire service tenders or water carriers.

Fire and Rescue Authority

Local Government organisation responsible, in the area where it discharges its functions, for the maintenance of a Fire and Rescue Service.

Fire and Rescue Services

Organisations under the control of a Local Authority, responsible for undertaking the functions and activities associated with a Fire and Rescue Service.

Fire hydrant

A valve allowing immediate connection to a water main, usually for Fire Service purposes.

Fire hydrant installation

Includes the fire hydrant, pit chamber, surface box, post and plate and where the hydrant is offset from the main, the interconnecting pipe work.

Guaranteed Standards Scheme

Standards agreed by Ofwat which results in a payment to customers where they are not met by the Water Company.

Lead Officer

Nominated Fire Service or Water Company Officer responsible for inter-agency consultation and liaison.

LGA

Local Government Association. Representative body of all Local Authorities including Fire Authorities in England and Wales.

Local authority

As respects England and Wales, the Council of a County Borough, London Borough or County District.

Microbiological quality of the water

Extent to which micro-organisms have affected the quality of mains water.

Multi occupied housing development

An area of private, domestic dwellings.

Normal demand conditions

Anticipated water consumption requirements.

Ofwat

See 'Authority'

Permanent system changes

Changes to the configuration of the mains system by opening or closing of valves or the installation of apparatus, which is intended to remain in place for a long period of time.

Secretary of State

Government appointed Minister with responsibilities, e.g. for home affairs or water services.

Self Lay

The laying of water mains on development sites by a recognised contracting organisation (SLO) employed by the developer. Subject to meeting the water undertakers requirements the water mains would then be adopted by the Water Company.

Service Reservoir

Storage tank containing water ready to drink and protected from contamination by a roof and lockable covers.

Short Term Demands

Temporary increase in water consumption requirements, above normal demand conditions.

Water Tender

Name given to a water carrying fire fighting appliance.

Water Carrier

A vehicle for conveying large quantities of water to a fire where it is difficult to obtain and adequately supply water for fire-fighting purposes.

Water Company

A company licensed for the provision of clean water to the customers in a defined geographic area. Some companies are responsible for supplying water only and others for removing and treating the sewage as well.

Water Industry

The Water Companies responsible for supplying water in England and Wales.

Water Relay

The transportation of water from a remote supply, to the point of use at an emergency incident by the use of Fire Service pumps and hose.

Water UK

Representative Association for all of the Water Companies in the UK.

WU

Water undertaker(s), ie the statutory water and sewerage companies and water only companies in England and Wales