



**Cynulliad Cenedlaethol Cymru
The National Assembly for Wales**

**Y Pwyllgor ar y Gorchymyn Cwmhwysedd
Deddfwriaethol Arfaethedig ynghylch Diogelwch Tân
Domestig
Proposed Domestic Fire Safety LCO Committee**

**Dydd Mawrth, 15 Ebrill 2008
Tuesday, 15 April 2008**

Cynnwys
Contents

- 3 Cyflwyniad, Ymddiheuriadau, a Dirprwyon
Introduction, Apologies, and Substitutions

- 4 Gorchymyn Cynulliad Cenedlaethol Cymru (Cymhwysedd Deddfwriaethol) (Rhif. 7)
2008
National Assembly for Wales (Legislative Competence) (No. 7) Order 2008

Cofnodir y trafodion hyn yn yr iaith y llefarwyd hwy ynddi yn y pwyllgor. Yn ogystal,
cynhwysir cyfieithiad Saesneg o gyfraniadau yn y Gymraeg.
These proceedings are reported in the language in which they were spoken in the committee.
In addition, an English translation of Welsh speeches is included.

Aelodau'r pwyllgor yn bresennol
Committee members in attendance

Peter Black	Democratiaid Rhyddfrydol Cymru Welsh Liberal Democrats
Mark Isherwood	Ceidwadwyr Cymreig Welsh Conservatives
Huw Lewis	Llafur Labour
Sandy Mewies	Llafur Labour

Eraill yn bresennol
Others in attendance

Ray Cassar	Gwasanaeth Tân ac Achub Swydd Gaerhirfryn Lancashire Fire and Rescue Service
Chris Enness	Gwasanaeth Tân ac Achub Gogledd Cymru North Wales Fire and Rescue Service
Colin Hanks	Gwasanaeth Tân ac Achub Gogledd Cymru North Wales Fire and Rescue Service
Andy Marles	Gwasanaeth Tân ac Achub De Cymru South Wales Fire and Rescue Service

Swyddogion Gwasanaeth Seneddol y Cynulliad yn bresennol
Assembly Parliamentary Service officials in attendance

Sarah Beasley	Clerc Clerk
Lewis McNaughton	Dirprwy Glerc Deputy Clerk
Sue Morgan	Cynghorydd Cyfreithiol Cynorthwyol Assistant Legal Adviser
Ben Stokes	Gwasanaeth Ymchwil yr Aelodau Members' Research Service

Dechreuodd y cyfarfod am 9.30 a.m.
The meeting began at 9.30 a.m.

Cyflwyniad, Ymddiheuriadau, a Dirprwyon
Introduction, Apologies, and Substitutions

[1] **Huw Lewis:** Welcome to the Proposed Domestic Fire Safety LCO Committee. I think that I am right in saying that this is the third such gathering. The purpose of today's meeting is to explore, through questions, some of the more technical aspects of the LCO as they relate to the concerns of the fire and rescue service. We have fire and rescue service representatives here from across Wales bar mid and west, I understand, but they have consulted with their colleagues.

[2] First, I must remind you of some domestic matters. I remind Members and members of the public in the gallery that the committee operates bilingually and that headsets are

available for translation. They can also be used as an induction loop for those with hearing difficulty. Channel 0 is the verbatim broadcast, and channel 1 on your headset is the translation. If there is a fire alarm, the ushers will escort us from the room and we are to follow their instructions. We have an embarrassment of assistance if there is a fire this morning, but we are not expecting a fire drill. I ask Members, members of the public and witnesses to please turn off any mobile phones, pagers or any other electronic device as they interfere with the broadcasting and translation systems. Although there are buttons on the microphones in front of you and it is tempting to push them, please do not do so; the microphones will operate as if by magic, and will light up and switch on when you begin to speak. We have received an apology from Janet Ryder this morning, and there are no further apologies or substitutions for the committee today.

9.32 a.m.

**Gorchymyn Cynulliad Cenedlaethol Cymru (Cymhwysedd Deddfwriaethol)
(Rhif. 7) 2008**
National Assembly for Wales (Legislative Competence) (No. 7) Order 2008

[3] **Huw Lewis:** This is our second evidence-taking meeting, and I extend our welcome to Chris Enness, deputy chief fire officer, North Wales Fire and Rescue Service, Colin Hanks, assistant chief fire officer, North Wales Fire and Rescue Service, Ray Cassar, strategic staff officer, Lancashire Fire and Rescue Service and Andy Marles, deputy chief officer, South Wales Fire and Rescue Service. I think that I will need new teeth—something about saying ‘fire and rescue service’ is causing me problems. [*Laughter.*] We have been introduced to some of you before, but, Chris, would you care to introduce your colleagues who have not been with us before?

[4] **Mr Enness:** Andy Marles has very kindly stepped forward on behalf of south Wales, and he will be supported by Mark Bennett, in the background there, for further technical information. Ray Cassar is here as he is integral to the National Fire Sprinkler Network. Colin Hanks is here on behalf of north Wales, and I have worked very closely with Ann Jones on this issue, and we are supporting her as best we can. The absence of the Mid and West Wales Fire and Rescue Service is unfortunate, but the people whom they wanted to send were unavailable, and they send their apologies. The three fire and rescue services welcome the opportunity to give evidence in support of Ann Jones’s proposed legislative competence Order. We look forward to giving evidence and hope that we furnish you with the information that you require to take this forward.

[5] **Huw Lewis:** Thank you, Chris. The committee has discussed a series of questions, which we will explore to get the discussion going. The first one is from me, and it is the obvious question, really. What do you think we can achieve through this legislative competence Order that we cannot achieve through existing legislation? Why can we not just do it through the powers or competencies that we have? What extra does it give?

[6] **Mr Enness:** There are three simple headings that I think this legislative competence Order will allow Wales to achieve. First, the money saved through lessening the incidence of loss of life and injury will secure a massive reinvestment into the economy of Wales. It will make Wales the safest place in which to live in the UK, and will demonstrate leadership on behalf of the Assembly, showing that, to make a real difference to the people of Wales, you are willing to stand up and lead on an issue that will demonstrate exactly what the Assembly was set up to do, namely to show leadership on behalf of the people of Wales. It also fits in with the Assembly’s target of being carbon neutral in Wales by 2011, and the target is by 2016 in the UK.

[7] I think that this is a more appropriate route forward than waiting for the devolution of power over building regulations, for example, as that is just minimum guidance that can be negotiated or haggled over, if you like. However, more importantly, the devolution of that power is quite a way away and, even when it is devolved, it will have to be re-written to include these issues. Evidence in England suggests that, where the building regulations give guidance, that guidance allows enough room for non-compliance, but a legislative competence Order would focus the mind on what we are trying to achieve, namely making Wales the safest place in which to live in the UK. Do any of my colleagues have anything to add to that?

[8] **Mr Cassar:** The point that Chris makes about the length of time that it takes to review and implement the changes to building regulations is a good one; it is a particularly slow process. I suggest that you are talking about a minimum of four years between the commencement of the consultation into the amendments that may be required and their implementation. However, to be perfectly honest, you cannot afford to take time over a matter that saves lives.

[9] **Huw Lewis:** In the absence of the power over buildings regulations being devolved to us, is there anything that would undermine the effectiveness of this LCO? In other words, are we perhaps running before we can walk? Does this LCO constitute a free-standing step forward?

[10] **Mr Enness:** If we go back over the history of legislative support for matters of life safety, we see that legislation, where it has been introduced, has made a massive difference. The Fire Precautions Act of 1971 was introduced to protect life in places of work and, since then, it has almost obliterated the loss of life in the workplace. Legislation is powerful, and the fire and rescue services cannot safeguard life safety in the home on our own; we need the support of the legislatures. The legislation on smoke detection in every new home, and on combustible foams and materials has been powerful. If you track back to the dates when they were introduced, you find a dramatic increase in the rates of life safety in the home from then, so the three fire and rescue services are convinced that we cannot achieve maximum life safety in the home in Wales without legislative support. We are pleased to support Ann Jones in what she is trying to achieve on behalf of Wales.

[11] **Huw Lewis:** We have heard previously about sections of the population that are particularly vulnerable to domestic fires. Do you think that this proposed Order is drafted broadly enough to encompass those groups? Would it do a good job for those sections of the population that are particularly vulnerable?

9.40 a.m.

[12] **Mr Enness:** In our written submission, we said that this was about rights. We understand the argument about making the Order on fire safety in the home general, and then introducing a Measure to make it more specific, but the issue that we have with that is that, if people do not understand what they are supporting, they are likely to fear the change and fight it. Therefore, there are two arguments there. If you go for too much, you will achieve nothing; you need to be sure of what it is that you are trying to achieve, and that is where the fire and rescue services sit on that issue. We are sure that we are trying to achieve it in the home. We understand that there are many other issues; ideally, we would like to see every building fitted with a sprinkler, but that is too big, and you would not achieve it.

[13] Therefore, we believe that the LCO is pitched about right for what it is trying to achieve. If you do not start somewhere, you will never start. If you keep pushing and pushing for something bigger and bigger, you will never do it, so you will never effect any difference in Wales. We are quite sure that this is the ideal starting point that will allow us to effect a

difference. We lose life in the home in Wales—we do not lose life in HMOs; in England, only 34 per cent of the total lose life in HMOs. In Wales, it happens in the home. Therefore, we are positive that this will make a difference, and it will do so for generations to come.

[14] Would anyone else like to add to that?

[15] **Mr Hanks:** We recognise that, if this legislation is successful, it will not drastically reduce fire deaths in the home overnight—it is a generational thing. There are countless examples of fire safety legislation having been introduced in the past and, 15 or 20 years later, that piece of legislation has eradicated fire deaths in those communities. Therefore, it will take a generation, but I hope that, within 10 to 15 years in Wales, we will be able to see a massive reduction in fire deaths in the home. People do not generally die as a result of fire in their places of work, or in hotels, pubs, restaurants, or cinemas; people die in their own homes, and this legislation will address that issue.

[16] **Mr Enness:** May I add one more point? Since 2001, we have had only one recorded fire death in a HMO in Wales. In north Wales alone, since 2001, we have had 45 deaths in the home. The scale difference is quite marked.

[17] **Mr Hanks:** I will offer another example. Today is tragically the anniversary of a fire death in Ruthin, where a young man, called Andrew Roberts, went to the pub to watch his favourite football club play. He called at some friends' house for a party on the way home, then went home and decided to make some chips. He had two smoke alarms fitted, but despite those two alarms operating, he slept through that and he was consumed by the fire. If that home had had domestic sprinklers fitted, this young man would be celebrating his fortieth birthday tomorrow. His friends and family are in Ruthin this morning, imploring other young people in the area not to mix cooking and drinking.

[18] **Mr Enness:** I believe that Andy has more examples.

[19] **Mr Marles:** This example is very relevant. This incident occurred in south Wales in 2004—I have the details here, so I will leave those with you. This is an example of a guy who had been out drinking, came back, put his chip pan on and went to sleep; a sprinkler in his flat saved his life. That is an example of this in action. Very few properties have these sprinklers at present. This is a classic example; I will leave the details with committee members in case they wish to look at that.

[20] **Huw Lewis:** Thank you.

[21] **Mr Cassar:** Only last month—about five weeks ago—a similar incident occurred in the Studley Green estate, which is a sprinkler estate. Again, in that incident, the sprinklers actuated, and if they had not been in situ, two people would almost certainly have died.

[22] **Huw Lewis:** I suppose that you have answered my next question—I can see the service's enthusiasm for the LCO. However, are you sure that there is no other way of achieving this policy objective through other means? Do we really need legislation for it? Is there some other way, such as guidelines, changing operating procedures, or anything else?

[23] **Mr Enness:** We are convinced that we need legislation to effect the change. Without legislative support, we believe that no change would come about. It would be an issue that was discussed and discussed, and everyone would agree what a great life-saving device the sprinkler system was, but no-one would be brave enough to stand forward and say, 'We are going to make this happen.'

[24] **Mr Marles:** I will put this in some kind of context, if I may. In the past 10 years, the

service in south, mid, west and north Wales has proactively attempted to do something about deaths and injuries in domestic property, and you referred to those particularly at risk. As we get better and better at understanding those particularly at risk, we do more and more. I refer you to a publication that we produce, which includes all the kinds of things that we do. It is just a big long list, with information on each of the things that we do. They are all proactive in the sense of trying to reduce risk, understand risk, and educate people and all those sorts of things. We go out putting smoke detectors up, as you are probably aware, particularly for those at risk, to give people an early warning and a chance to escape.

[25] The only device—other than some very technical stuff that industry uses—that detects and suppresses a fire is a sprinkler. There is no other device in the world that we are aware of that would do that, other than some very specialist technical stuff that my colleagues can advise you about. They are basically industry-type installations, which are very expensive, to protect computer equipment and so on; they are very specialist installations. As I said, the beauty of a sprinkler is that it detects the fire, operates an alarm if it is needed, gives an early warning so that people can escape, and suppresses the fire. Again, that is of great benefit to the firefighters who then respond because a domestic property is on fire. If, when they get there, the fire is either out or suppressed, that is a good health and safety benefit for firefighters. It means that they are approaching a fire that something is already trying to deal with. I think that that is the thing that makes it different.

[26] A smoke detector is a fairly cheap device and they have received great support from the Assembly. I must put that on record; the Assembly is brilliant in supporting us in all these initiatives and in promoting things. Essentially, we are coming back to the Assembly to say that this is a tough nut for us to crack, but that, with its support, we think that we can make people safer. I have with me the figures on all the sorts of calls that we attend, the kinds of deaths that there are in south Wales and the reduction in the number of deaths that we have achieved, but we are now stuck at that level. This is a strategic issue for the next generation. If the Order was passed tomorrow, the first few houses would start getting sprinklers fitted and it would take a generation or two before the majority of the building stock had them. However, at that point in time, as deputy chief Ennes just said, it would be one of the safest places to live in the world, except for a few cities in America, which saw this problem 15 or 20 years ago and did something about it through a particular process that they have, involving ordinances, which is not available under British legislation.

[27] **Mr Cassar:** Just to complement what Andy has said, it is also worth bearing in mind that there has not yet been a recorded fire death in domestic premises that have been fitted with sprinklers.

[28] **Mark Isherwood:** Chris referred to, I think, 45 deaths since 2001—

[29] **Mr Enness:** That is in north Wales.

[30] **Mark Isherwood:** There have been 45 deaths in north Wales since 2001. Overall, in 1998, there were 30 deaths in Wales—15 of those were in the south and 10 were in the north. By 2006, that 30 was down to 12 deaths, with south Wales going from 15 down to one, but north Wales going from 10 to 11. What has happened there? What has been the impact of the portable systems introduced in north Wales? If the figure is 45, that suggests that the 11 deaths fell to four last year. Was that linked to the portable systems that are targeted at high-risk groups?

[31] **Mr Enness:** Through the chief officer's task group, we have looked into the incidents and looked at every single case study where someone died in the home. We were after the magic formula that we were sure would come out of comprehensive research, so that we could say, 'This is the link that causes deaths.'. We knew that if we could work on that link,

we could eradicate it. Unfortunately, that magic formula does not exist. There were seven contributory factors that linked most people, such as that they were known to other agencies, that they lived alone, and that they did not own the house in which they died. Age was a factor, whether they were young or old, as were disability and the ability to respond. We looked at all of those issues. There are basically seven contributory factors that we have to work on. We are progressing with that.

[32] The portable sprinklers are excellent, but, unfortunately, they are ugly and people do not want them. I will ask Andy to show you what a domestic sprinkler would look like. In a new-build home, you will not see them. All you see, at ceiling level, is a white disk. It is recessed, so you do not see it. People who are vulnerable do not think that they are vulnerable; that is the simple truth. It would be great if they would listen to us. All three fire and rescue services work quite hard with the media to raise awareness on a whole range of issues, but the most vulnerable people do not believe that they are vulnerable and they are the people, who, by their very nature, will take more risks. So, we need that co-ordinated support from the Assembly.

9.50 a.m.

[33] Mark, you have gone to the press to talk about this and that is music to our ears. We want political support and we work closely together. The truth is that all of these things will only have so much benefit. Bringing in a piece of legislation that requires every new build—and remember that this is for new builds; this is not about retrofitting—to have a sprinkler system as a minimum standard will, eventually, eradicate deaths caused by fires in Wales. This is, potentially, a moment of history for the Assembly.

[34] **Mark Isherwood:** What impact have the portable systems had? Have they reduced deaths? Have they had an impact?

[35] **Mr Enness:** Where they are fitted and they have actuated, they would almost certainly have had an impact. You cannot say that they have prevented a death; you cannot prove a negative. Although they would have had an impact, we cannot argue that the person would have died had that portable sprinkler system not actuated. We can hazard a guess and say that we believe that it would have prevented death, but we cannot argue that it has done so for definite, because you do not have the statistical evidence.

[36] **Mark Isherwood:** So, they might have been a factor in the reduction—

[37] **Mr Enness:** They are a factor.

[38] **Mark Isherwood:** The figure fell from 11 to four, I think, in one year.

[39] **Mr Enness:** The figure fell to seven last year. They are a factor but they are wrapped up in the greater scheme of things with our greater use of the media, with the three fire and rescue services delivering far more home fire safety checks than ever before, and as a result of their working with the Freephone number and raising awareness. Those are all factors. Sprinklers will definitely make a difference. Where fitted, portable sprinklers will definitely save lives, but our argument is that sprinklers need to be in-built, so that safety is built in to the home.

[40] **Huw Lewis:** Thank you for your patience, Sandy. You may go next.

[41] **Sandy Mewies:** My question is along the same lines as Mark's. We have previously discussed the problems in north Wales, which are, in some ways, specific to north Wales. It came as a bit of a shock to the system for everybody to see how the figures were panning out.

This LCO, as you say, relates to new builds. The vulnerable people who lose their lives in fires may or may not be living in new builds. Colin, as you say, it would be nice to think that we could reduce the number of tragedies to nil, and this will go some way towards that. However, I do not believe that you will ever reduce the number of tragedies to nil because you cannot cover all eventualities.

[42] I know that you are working very hard in north Wales, because I see it. I know that you are going out to people, including vulnerable people. You are sharing information now—or rather other agencies are sharing with you. That was something of a problem before. All I am getting is that this is going to be wonderful for Wales when it goes through, and I agree with you about that, but I hope that you will continue to do the work that is being done with vulnerable people, because of those seven factors. I know that there is not one common denominator, but we know, in north Wales in particular, that people who are vulnerable for all sorts of reasons have problems in this area. This is not the be-all and end-all is it? I just want to be reassured that all the work that you are doing is going to continue.

[43] **Mr Enness:** Yes. Thanks for raising that, Sandy, because it gives us the opportunity to bring in another issue. There is a push for affordable housing, which will consist of new builds, which will be built by housing associations. Social housing in future will not be built by local authorities, but by housing associations; they will be new builds and they will be affected by this piece of legislation. So, we automatically click into supporting some of the more vulnerable people in our communities. You are right: safety in the home is just one part of what the three fire and rescue services seek to do. We want to support the wider social agenda on safety across the board. So, work will go on in a whole range of areas and, moving away from the home, the three fire and rescue services are pleased that they have a legislative requirement to help reduce the number of road deaths, for example, which are on the increase. As society evolves, the fire and rescue service must evolve to support it. However, this LCO, although it is not the be-all and end-all of everything that we do, is a massive step towards safety in the home; that cannot be underestimated.

[44] **Sandy Mewies:** Are you talking to house builders? I am thinking about what we talked about this morning, Chair.

[45] **Mr Enness:** Where possible, we try to influence house builders to put sprinklers in their new builds.

[46] **Sandy Mewies:** What type of reception are you receiving?

[47] **Mr Enness:** It varies. Interestingly, a house building association recently opened a headquarters but did not put sprinklers in it, but yet it is quite receptive to putting sprinklers in some of their homes. We are also talking to health and social care officials in the Welsh Assembly Government, so that we can jointly identify people and put in a portable system or move them to a more appropriate place. So, the three fire and rescue services are working with as many partners as possible to have an effect, but the analogy that I would use is that we are swimming against the tide. If people do not need to do it, they will not do it.

[48] **Mr Hanks:** To add to that, the North Wales Fire and Rescue Service is currently working with the North Wales Housing Association and has provided funding for two properties to have domestic sprinklers fitted. We are doing that in conjunction with a development grant from the Welsh Assembly Government—it is a top-up to the development grant funding. The members of a family in one property are at particular risk to their lack of mobility, so we have encouraged housing associations to lead the way.

[49] **Sandy Mewies:** That is good. What impact would the provisions of this Order have on the work that you do? You are saying that it will protect firefighters, but do you foresee

any difficulties? Are there any special difficulties that will arise out of this?

[50] **Mr Enness:** I will open it out to my colleagues in a moment, but I do not see that having sprinklers in a home will create any difficulties for us.

[51] **Sandy Mewies:** It is all positive, then?

[52] **Mr Enness:** Yes, because it provides a greater level of safety for the occupants of the home. You have just made the point that it also provides a safer environment for firefighters going in to extinguish a fire. We have lost firefighters in Wales in domestic fires. For example, two firefighters were unfortunately caught in a flashover and lost their lives in Blaina in Gwent. Had sprinklers been installed, they would be alive today. We do not see that the Order will present any difficulties for us—it is all positive.

[53] **Sandy Mewies:** What about consistency in the impact of the Order? I am talking about water provision in urban and rural areas—will there be problems in that regard or can they be overcome? I know that we have discussed this before—we have covered a lot of the ground—but, as the Chair said, you can be more technical now, if you wish. You did give us a list of various places from where you could draw water.

[54] **Mr Enness:** There are five types of places—and I will bring in Ray here—that the British Standard Institution states are acceptable to draw water from, including wells and springs and so on for the more rural areas. If needs be, the Order would provide for an exception in an area where there was a problem. However, we do not think that that exception will be required, because the British standard is clear and it provides enough scope to do that. It also prevents a team of contractors or a building company from bolting a housing estate onto an area without looking at the infrastructure. It makes people look at the impact on the infrastructure over the longer term, which is what should happen. For years, we in the fire and rescue service have seen estates just bolted on without the infrastructure being looked at, and it puts too much of a strain on the infrastructure. We are hopeful that the LCO will prevent that from happening again.

10.00 a.m.

[55] **Mr Cassar:** As Chris rightly says, there are five methods of supplying water to the sprinkler system—we are talking about the British Standard 9251:2005 system. The only method that poses a potential problem is a direct feed from the town mains, because of the potential restrictions that the water undertakings may have with regard to pressure and flow. The other four can all virtually guarantee to overcome that particular issue, if it exists. With regard to a sprinkler system for domestic occupancy, the standard requires 10 minutes' supply of water, so, if you have to use a gravity tank and pressure-stored vessel and so on, you are not talking about huge tanks. These are not 30,000 litre tanks of water that must be fitted somewhere within the curtilage of the premises. We are looking at a 10-minute supply, with 60 litres a minute if one head actuates, and 42 litres a minute if two actuate, at the most hydrologically inefficient part of the premises, which, in a three-bedroomed semi-detached house, would be the furthest point from where the water enters into it. The four other methods of providing water, especially those that incorporate a pump to supply the water from the tank, will have been calculated and guaranteed to provide that water.

[56] **Sandy Mewies:** You mentioned the problem with town water mains last week. How practical is it, in terms of cost and method, to overcome any problems that might arise? There is a high concentration of people living in towns, generally.

[57] **Mr Cassar:** It is particularly practical, in my view, especially for new builds, because the infrastructure does not as yet exist, and by consulting about the water undertakings at the

planning stage, the issues can be overcome. The table is bare. Once you start putting things in place, it becomes more difficult to move things around, but when the table is bare, through appropriate discussions and a bit of foresight and forethought, it is practical to overcome those issues.

[58] **Mr Marles:** We talk to water companies a lot about routine firefighting issues and water in mains, and, from our experience, it is fair to say that, particularly in south Wales—I cannot speak for other areas because I am not familiar with them—there is a shortage of water in town mains. There is a balance between what the domestic supplier and industry needs, and leakage loss, hygiene and the other issues that the water companies must take care of. It is about understanding that balance. As my colleagues have just said, in a new build with new infrastructure, water companies can put water into those mains. If we get a big fire, and we are short of water, we get hold of the local water undertaker, and a guy is sent out to get us all the water that we want. It is about the balance between the needs of the water company, given old mains and leakage—we accept that it is old infrastructure that needs changing—and public safety and domestic supply. There is a balance there, somewhere.

[59] **Sandy Mewies:** Question 8 has been covered, I think, Chair. What sort of provision would you make in relation to transportable homes? By transportable homes, I presume that we mean caravans, Chair.

[60] **Huw Lewis:** Yes, mobile homes.

[61] **Mr Enness:** Transportable homes are covered by British Standard 9521:2005. That is in the last part of the description of domestic occupancy. Again, we are focusing on new builds, and, where there is a new build, providing that it fits into the specification in the British standard, provision would have to be built in.

[62] **Sandy Mewies:** I am thinking of my constituency, and Ann's—we have a lot of them.

[63] **Mr Enness:** Absolutely, but you must remember, Sandy, that we are focusing on new builds. We know that, in north Wales, the population swells from 600,000 across the board to more than 2 million in holiday periods, but separate legislation governs safety in campsites and caravan sites and so on. Again, we are plugged into that, and work very well with partners on it.

[64] **Huw Lewis:** Before we move on to a series of questions from Peter Black, I have a question. Are there any categories of fire that would present difficulties for sprinkler systems, in that the sprinkler would not be effective or might even make things worse? I am thinking of electrical fires and so on, or would that apply only to fires in an industrial context? In a domestic setting, does the sprinkler always help?

[65] **Mr Enness:** 'Yes' is the short answer to that. There may be fear about putting water onto chip pans that are on fire and so on, but the sprinkler operates in such a way that it excludes the oxygen—it produces smaller droplets in a diffused state. So, it has a positive effect on the fire. There is a common misunderstanding about electrical fires. Electricity is an ignition source, but it does not catch fire; it is the combustible material that surrounds it that catches fire, such as the insulation. That material is usually carbon based and would be extinguished or controlled by a sprinkler. So, the short answer to your question is 'yes'.

[66] **Peter Black:** In your evidence, you say that:

[67] 'By having the proposed Order affecting residential premises, this allows for collation of evidence leading to support of moving on to more challenging and costly installations if

appropriate.’

[68] Can you expand on what you mean by ‘more challenging and costly installations’?

[69] **Mr Enness:** Yes, absolutely. One of the problems that we have in collating evidence is that we have nothing to draw on. So, we have nothing that enables us to say, ‘This has happened here, and it saved x lives.’. We have it in America and Vancouver, but not specifically in the UK. We need that to support moving on to more costly and challenging things. If you want to look at bringing in a requirement to retrofit in houses in multiple occupation or residential care homes, then you will face resistance. By having a good evidence base to support your decision making, you can make decisions based on evidence, and say, ‘Look, we have this evidence—this is what it means, and it definitely does this’. That is what we mean by ‘more challenging and costly’. Everyone agrees that the sprinkler is the best life-saving device ever invented, but the wider you spread your net, the more resistance you are likely to meet. So, we are saying that, when you want to spread your net wider, we think that you will be supported by having an evidence base on that. Would anyone like to add to that?

[70] **Mr Cassar:** Only to say that it has been compared to the fitting of air bags in cars. At one stage, only executive cars had air bags, but once the evidence of their life-saving benefit was there for all to see, as much as the manufacturers were on board already, the customer base demanded it. I think that you will find that another positive will be that far less effort will be required to bring people on board once you have the evidence that this LCO will provide.

[71] **Peter Black:** Do you envisage a staged approach? That is, you are starting with new residential properties, but are you then expecting a demand for retrofitting. Is that the plan?

[72] **Mr Enness:** I do not think that you would achieve retrofitting in domestic occupancies—it is too costly to the individual. However, in time, you would seek to bring in different vulnerable groups and get them covered. However, you would need something to support your decision making, rather than just saying that you think it is a good idea. That is particularly the case because, going back to our statistics for Wales, people tend not to die from fires in HMOs—and I hope that that continues—even though they are recognised as being vulnerable people. In Wales, people tend not to die from fires in residential care homes, even though they also would also be recognised as being vulnerable people. However, the fire and rescue service would like to see sprinklers fitted in these places in time. In order to support that, you would need evidence-based research.

10.10 a.m.

[73] **Peter Black:** You referred last week and throughout the evidence this week to examples in the United States and Canada in particular. Are there any other countries where there have been efforts towards installing sprinkler systems that we might want to look at as a model?

[74] **Mr Cassar:** The other good example is New Zealand, which has a sprinkler system known as BRANTZ. It is classed as a low-cost sprinkler system. It does not have the same safeguards and detail as our British Standard 9251:2005 system, but it would be an excellent example for you to consider. Research into adapting the BRANTZ system, commissioned by the Department of Communities and Local Government with the Fire Protection Association is ongoing. The research was completed about 12 months ago, and a design guide has just been completed, which is now being considered with regard to water undertakings. So, although we are probably a few years away, in future, there may be a lower cost sprinkler system, similar to the BRANTZ system, that would be appropriate to housing in Wales and

the remainder of the UK. That would be an ideal opportunity for rural areas in Wales.

[75] **Mr Hanks:** The Welsh Assembly Government has already accepted the value of sprinklers, and it has been successful in introducing sprinklers in new-build schools and in any schools that are massively refurbished. That evidence has already convinced us that it is a good thing to do.

[76] **Peter Black:** To turn the question on its head, are there any places where the policy has not worked so well in practice?

[77] **Mr Enness:** We have discussed whether we can think of any negative examples, because we would like to bring those to the table as well, but we cannot think of any. We cannot think of any instance, regardless of the premises, where there has been a problem associated with the system. It is a beneficial system and we cannot think of any negative examples to give you.

[78] **Mr Cassar:** That is true even of the reliability point. There are commercial and industrial sprinkler systems that are upwards of 100 years old that, although they have regular maintenance, are still the same systems that were fitted 100 years ago. They are still operating and working effectively.

[79] **Peter Black:** The old technology is always the best. You talk in your evidence about fast-response sprinkler heads and say that there is clear evidence of a significant additional measure of life safety. Can you expand on that?

[80] **Mr Marles:** We have brought some examples. What I have before me is an ordinary industrial sprinkler. You will see that there is a bulb and liquid in there, which, when it gets hot, will expand and shatter the glass, which opens the valve. When that happens, water comes out and creates the spray. That is a standard industrial sprinkler valve. We have brought this other sprinkler because it serves two purposes. First, it sits flush to the ceiling, so you would not know that the sprinkler was there. When the heat below melts some fusible devices in the sprinkler, it drops that part off and exposes the sprinkler. This part of the sprinkler drops down, so water hits all parts of the room. You can see that the bulb is a lot smaller in this example, so it reacts more quickly to the temperature.

[81] **Mr Cassar:** On a technical note, it might be worth saying that the domestic sprinkler system is known as a 'wet system', which means that the water is in the pipes right up to the point of the bulb all of the time. Some commercial and industrial systems are known as 'dry systems', which, due to exposure to potential frost or other process reasons, are full of air and have to be purged. However, in a domestic situation, the moment the bulb fragments, water is applied instantaneously.

[82] **Peter Black:** You have some good examples there. Are there standard types, or a range of systems, available, and would you recommend a particular type that should be used in Wales if this legislation is passed?

[83] **Mr Enness:** Sprinklers are designed for different premises, and different risks and temperatures within those premises would require, as Ray said, a dry-pipe system in some, a wet-pipe system in others and a proactive system in other premises. What we would recommend is that this legislation is supported by utilising the British standards that have been successful so far, and continue to be successful, given the research that is carried out. We would recommend that any system used would conform to BS9251.

[84] **Huw Lewis:** If Peter is content, we will now move on to a series of questions from Mark Isherwood.

[85] **Mark Isherwood:** You refer in your submission to one of the benefits of sprinklers being environmental. What do you mean by that? Can you expand further?

[86] **Mr Hanks:** Yes. Traditionally, the fire service has always been responsible for saving lives and protecting property. We now have a new role in terms of safeguarding the environment, both built and natural. Some people may have seen the Al Gore film, *An Inconvenient Truth*. The evidence is quite compelling with regard to carbon dioxide and the effect on global warming. This LCO will also reduce the effect of carbon footprints. The fire and rescue service is unique in that we are responsible for two carbon footprints—our own, in terms of the service that we run, the vehicles that we use and the heating and energy that we consume, and the effect on the environment from fires.

[87] To give you a comparison, in an average house with four adults, there are around 1.3 tonnes of carbon dioxide emissions per adult throughout the year, so you are looking at 5 tonnes per family of four per year. In Wales in 2006, there were just over 2,000 domestic fires, equating to approximately 2,000 tonnes of carbon dioxide emitted. Although there is no such thing as an average house fire, for the purpose of mathematics, an average house fire produces approximately 1 tonne of carbon dioxide. There are four phases of carbon in a building associated with fire—the carbon footprint to construct the building, the carbon emitted from a fire, which is approximately 1 tonne, the energy required to rebuild, and the energy required to recycle the fire damaged materials. So, a water suppression system will go a long way to reducing the carbon footprint of Wales, and, as we all know, we are subject to a target for Wales to be carbon neutral by 2011. This will massively reduce our carbon footprint.

[88] **Mr Marles:** This document is the fire and rescue national framework for Wales, which is a Welsh Assembly Government document, and is the document to be aware of. It states what is expected of our fire and rescue services. That is now a few years old and the new version is out for consultation. I draw Members' attention to a piece in the Welsh Assembly Government's vision. There are four issues there. I will not go through all the detail, but the third one states that the Assembly Government's vision is that fire and rescue services should recognise the impact they have on the built and natural environment, its social fabric and its sustainability, contribute to meeting the Assembly Government's sustainable objectives for operational activity and preventative action, which is the area that we are now looking at, and examine our own impact as an organisation, which Colin has just raised, on the environment. We think that it fits full square with that, in terms of the Welsh Assembly Government's vision for us and the public.

[89] **Mark Isherwood:** Your submission states that the cost of water connection and supply is the main obstacle in the cost-effectiveness argument, particularly in Wales. Why is that, and why Wales in particular?

[90] **Mr Enness:** Basically, it is an increased cost. It is not Wales in particular; I have just targeted my evidence specifically at Wales. However, it is an increased cost to the supplier or the housebuilder. At the moment, I dare say, people would look at their profit margins and say that this is an increase that they could do without, which is why, if you give people the choice, they tend not to take the steps that you want them to take. The seat-belt law is a classic example as it has made a real difference to the national health service. The issue is that a different sized main is required to take the water from the water undertaking into the home. At the moment, that does not have to be done. So, if you had to provide it, there would be an increased cost.

10.20 a.m.

[91] **Mr Cassar:** Going back to the point that I made earlier when we were talking about new builds and the infrastructure not being in place, the impact on the water undertaking will be less as a result of pre-consultation. However, I would also argue that, once the LCO is in force and the introduction of sprinklers in new builds becomes the norm, there will be economies of scale, because it will then be what they are used to. So, understandably, there will be a little bit of trepidation initially, but that will soon be overcome.

[92] **Mark Isherwood:** I would like to develop that point briefly. I have scribbled notes, as it is easy to forget what you said. You are aware of the British Research Establishment review into part B of the building regulations relating to fire safety. As you are aware, it looked at the British Automatic Fire Sprinkler Association's figures, which assumed that, by and large, there were no unusual circumstances and that connection to mains water was possible. I know that you have already touched upon this, but I understand that, if you use figures taken from some projects, there is evidence to show that the cost would be a lot higher if storage facilities and pumps are required. Is there a greater likelihood of that in Wales, or should the situation—in your understanding—be the same as it is in the regions of England and in Scotland?

[93] **Mr Enness:** I do not want to take Wales as being out of the ordinary. We have no greater or lesser geographical or demographical diversity than some of the other areas that have succeeded in this. On the connection of water and the types of supply that you have, if you needed to retrofit, you will have many problems with people trying to get the systems to support it. However, we are not talking about that; we are talking about new builds. Ray has already painted the picture: you start with a blank sheet so that you can put in the infrastructure that you require to get the result that you want in new builds. BS9251 has five different supplies of water.

[94] The cost will go up with the size of the house; there is no argument about that. The greater the size of the house, the greater the cost that would be incurred. If you wanted to build, for example, on a mountain top where no supply of water is readily available, you may be looking at an increased cost to supply the infrastructure to do that. However, these are the choices that you make when you choose to build in a certain area. I want to go back to Ray's point: you start off with a blank sheet, and you make the choices. The cost will vary, but Ray has already made the point about competition driving costs down. This is a point that we must not forget.

[95] **Mr Hanks:** It is important not to forget that, if you have an automatic water suppression system fitted, it allows the design of the building to be modified, because you have an inherent fire-safety feature that would allow other building regulations to be relaxed because you have overcome them in a different way. An average house will have a particular fire resistance requirement between the living accommodation and the garage, for example. That could be different if you have a sprinkler system fitted. So, there are other areas where costs could be reduced.

[96] **Mr Cassar:** Some of those will be considerable.

[97] **Peter Black:** Does that require the fire regulations to be modified? The regulations are in place; we are talking about legislation as opposed to changing the building regulations. If you put in a sprinkler system, common sense will say what you do or do not need. However, the building regulations will still be in place.

[98] **Mr Cassar:** The building regulations are still in place, but, as a result of the example that Colin gave, it is quite legitimate to expand on the potential to introduce design freedoms when you fit a sprinkler system. A good example would be the building of a series of town houses, four storeys in height, which, as a result of their height, would be required to have a

secondary means of escape, usually in the form of an external fire escape. I have had experience of working with architects and developers and, when they have fitted a BS 9251:2005 system in those premises, we have been perfectly happy to design out the external escape. The external fire escapes would have cost considerably more during the initial new build of those premises than any sprinkler system ever would. There are some considerable advantages to fitting these systems, above and beyond the primary one, which is to save lives.

[99] **Mark Isherwood:** To go back to the infrastructure issue, as opposed to the benefits, Welsh Water states in its business plan that infrastructure and capacity problems are already holding up the development of 20,000 homes, at a time when we need more homes in Wales. How do you respond to that, and what impact do you think that that might have? Have you already discussed this with the likes of Welsh Water to gauge the response?

[100] **Mr Enness:** I have not had any discussions with Welsh Water specifically about the holding up of 20,000 homes. We have, however, had a discussion with individuals from Welsh Water about the implications of domestic sprinklers—and it is hard to say who represents Welsh Water in these discussions.

[101] I think that the British standard is flexible enough to get around the infrastructure problems. I do not want to concentrate on towns' mains as the only opportunity to provide water for a sprinkler system, because it is not; there are five opportunities. The three fire and rescue services are convinced that the British standard is flexible enough to overcome the infrastructure issues. Last week, I recall that it was said that, if an issue could not be overcome, an exemption or exception could be granted. However, we do not envisage the exceptions being required, given the flexibility of the British standard.

[102] **Mark Isherwood:** I will move on to the next question. We heard from you last week that the chances of a sprinkler system failing are very small indeed. Does that depend on regular maintenance? What would be the effects if regular maintenance of the system was not carried out?

[103] **Mr Cassar:** The system requires regular maintenance on a 12-monthly basis. There are very few moving parts to a BS 9251:2005 system, but it is difficult to say whether a system that was not maintained would or would not work, so I do not intend to do that. We recommend that the system be fitted, operated and maintained in accordance with the British standard, which recommends maintenance on a 12-monthly basis. However, by virtue of the fact that there are very few moving parts in the system, I do not think that it will be an onerous activity or a particularly expensive one.

[104] **Mr Enness:** To support what Ray said, there are far more moving parts in a central heating system than a sprinkler system, and the incidence of a central heating system failing is not that great, and so the incidence of a sprinkler system failing is negligible. It really is. It just does not happen.

[105] **Mr Cassar:** My apologies, because I did not answer the point about the false actuations, but Chris has very kindly done that for me. They are almost unheard of. The figure is one in 16 million in the examples that Andy brought along, particularly the flush-to-the-ceiling type. They are less obtrusive than a light fitting, or a smoke alarm. They are almost tamper-proof, and it is a case of out of sight, out of mind. I would have absolutely no qualms about false actuations. They virtually do not happen.

[106] **Mark Isherwood:** Without regular maintenance, what would be the likely impact?

[107] **Mr Cassar:** You certainly would not get false actuations. The aspects of regular maintenance come in, for example, for something as simple as a decorating process that may

have occurred in the house over the past 12 months to ensure that the flush pendant—

[108] **Mr Marles:** Artex that over. [*Laughter.*]

10.30 a.m.

[109] **Mr Cassar:** That would not concern me at all.

[110] **Mark Isherwood:** So, when you say regular maintenance every 12 months, does that mean something that a householder could do, or does it mean bringing in an expert?

[111] **Mr Cassar:** It needs to be carried out by a competent person.

[112] **Mr Enness:** I agree. At the moment, you get companies that specialise in fitting domestic sprinklers, but they are few and far between because it is not an industry-wide area at the moment. Competition would provide the greater availability of that resource and would also drive down the price of what is charged at the moment. It is like a monopoly. If you have the monopoly, you can charge what you want; if you have competition, you tend to be more competitive with your pricing. We foresee that happening with domestic sprinklers.

[113] **Mark Isherwood:** Paragraph 32 of the explanatory memorandum accompanying the proposed Order suggests that the installation of sprinklers could lead to a reduction in construction costs by eliminating the need for costly fire doors and other structural elements. What is your view on that?

[114] **Mr Enness:** I will hand over to Ray in a moment, but I just want to say that, broadly speaking, there are two approaches to fire safety: passive and active. Fire doors and construction designs tend to be passive. In other words, you have built-in protection, and, provided that all the protection works as it is designed to, you will have time to get yourself to a place of relative safety. That is what it is designed to do. The sprinkler system, or an automatic water suppression system, is an active system, as not only does it provides the time required to reach safety, but, nine times out of 10, it extinguishes the fire, and thus provides a far greater level of safety. We would rather have a more active system in place every time. There is no requirement for people to put sprinklers in, so they do not; there is a requirement to put passive fire protection in, so they do. Ray, would you like to add anything?

[115] **Mr Cassar:** I think that you have covered it there. If it is a proactive system, it does something positive. It makes the conditions in the room where the fire originated more tenable. It makes the atmosphere, albeit uncomfortable, breathable and so survivable. It stops the fire spreading and it means that the person in that room can survive even if he or she cannot get out. On most occasions, it is likely that people can get out themselves, but, if not, it makes the conditions better for them and more tenable for the firefighters to locate and rescue them. It does something positive rather than just alerting people to danger.

[116] **Huw Lewis:** I have some questions on definitions and terminology. You say in your submission that the Order should be reworded to use the term 'domestic occupancy' rather than 'residential premises' and you say that this is in line with the now famous BS 9251:2005. You also say that flow rates and flow-rate requirements for mains supply connections should be included in the Order. Why include that in the Order? Would it not be better to leave that to a future Assembly Measure? Is there not a worry overhanging this that, if BS 9251:2005 is revised at some point, we are tying ourselves down here?

[117] **Mr Enness:** I will refer to an earlier point. We understand absolutely what you are saying, in that it is the Measure that needs to be specific, but, unless we are specific at the outset about what we are trying to achieve, people will misunderstand it. That

misunderstanding has already started to creep in by using the term 'residential'. We have advised in our submission the use of the term 'domestic occupancy', so that people understand what we are trying to achieve. There are differences in the use of terminology and we are trying to bring clarity to the situation, and say that this is about new-build homes. If you use the term 'residential', you will be looking at a raft of different areas, such as houses in multiple occupation and residential care homes, and you will then have to look at either retrofitting or supporting them, and the cost will increase substantially in a bigger environment. So, our submission is purely about trying to support the LCO and bring clarity to what it was trying to achieve originally.

[118] **Huw Lewis:** You have answered part of my next question, but I will just move on from there. This definition of 'domestic occupancy', as it is in the British standard, is restricted to properties with a maximum room size of 40 sq m. Do you think that we might be cutting out certain types of property that ought to be included in the LCO, including larger properties?

[119] **Mr Enness:** It is always a possibility, and on your earlier point about a revision of the British standard, you could argue that about any regulation, could you not? There is a possibility that certain places would fall outside the scope of the LCO, but I dare say that you would take a risk-assessed approach and apply for an exemption or exception to the rule, as currently happens with almost every building.

[120] **Huw Lewis:** Nevertheless, 40 sq m is not enormous, is it? This room would be around that size, would it not?

[121] **Mr Enness:** This is bigger than 40 sq m.

[122] **Mr Cassar:** It is primarily determined by the coverage that the sprinkler heads can afford. That, in itself, is covered by the pressure and flow requirements of the system. The standard makes a realistic assessment of the requirements of a sprinkler system. We could have four sprinklers in this room that would cover it, provided that the pressure and flow characteristics were achievable, but it is probably unlikely that they would be achievable under normal domestic circumstances. So, there are limitations on the size that it can operate to, by virtue of making it a realistic approach to pressure and flow.

[123] **Mr Enness:** We are also talking about areas of risk. If you have a room that is really big, what would you be doing in it? That is a point to bear in mind. Sprinklers come into their own when there is a fire in a bedroom, which is where people sleep. Smoke can overcome you while you are sleeping and you may never wake up. A sprinkler would come into its own there by extinguishing the fire. So, we need to bear in mind that, if a room falls into the specification contained in the British standard, what is that room to be used for?

[124] **Huw Lewis:** I suppose that the worry in the back of my mind is about a large, open-plan, ground-floor area, such as a kitchen/dining room that opens out into a living room. We are talking about larger properties here, but there are some types of conversions, such as barn conversions, that take advantage of the huge floor space to be just a walk-through space. Are we locking those out unnecessarily?

[125] **Mr Enness:** No, I think that we are locking them in rather than out. We have gone the other way. You would almost have to guarantee that you would provide the appropriately sized sprinkler heads to compensate for a risk of that size. So, we are actually locking them in, and saying that they will definitely have to get sprinklers in such buildings.

10.40 a.m.

[126] **Huw Lewis:** Okay, perhaps I misunderstood that. Sandy has the next question.

[127] **Sandy Mewies:** This question, again, is about definitions. Ann told us last week, and you have repeated it today, that there is an intention that properties such as residential homes and care homes should fall within the scope of the Order. Would such properties fall within the scope of the BS 9251 definition of domestic occupancy, given the reference to individual dwellings for use as a single family unit?

[128] **Mr Enness:** I have obviously communicated badly in my earlier submission.

[129] **Sandy Mewies:** No, you said that it was incremental.

[130] **Mr Enness:** This particular Order, in the fire and rescue service's opinion, does not encompass residential care homes.

[131] **Sandy Mewies:** You made that clear earlier on, but that is the question that was allocated to me. [*Laughter.*] So we will have that in our evidence.

[132] **Mr Enness:** We believe that residential care homes would fall outside the scope of this Order.

[133] **Sandy Mewies:** Okay, thank you.

[134] **Peter Black:** My question is still on BS 9251.

[135] **Mr Enness:** Everyone knows it. [*Laughter.*]

[136] **Peter Black:** I do now. [*Laughter.*] In addition to domestic occupancy, it provides a definition of residential occupancy, which includes residential homes, HMOs, and nursing homes. Is there a particular reason why you prefer the term 'domestic occupancy' to 'residential occupancy', bearing in mind that the definition of the term 'residential occupancy' includes all the types of properties that Ann Jones said that the Order should include? Is there a wider scope that way?

[137] **Mr Enness:** There is a wider scope; I will ask Ray to comment on that in a moment. However, when putting our submission forward, we believed that the term 'domestic occupancy' encompassed the original proposal for domestic sprinklers; it covers the fact that the risk in Wales is people dying in the home. In our opinion, it covers that succinctly, so that it does not lead to confusion about the use of premises.

[138] **Mr Cassar:** The point was made earlier regarding the types of premises that are not mentioned in the residential definition. One of the main ones, and it is one that has been mentioned a few times this morning, is the HMOs. Very few, if any, HMOs are built as new builds; the majority of them exist as a result of boarding houses or small hotels that have fallen on hard times and been converted. The LCO is clear that we are not looking at retrofitting. Therefore, you would not have any great impact on houses in multiple occupation by including them in the LCO because homes are not built in that format any more.

[139] The other premises within the residential definition are good examples of where sprinkler systems would be of benefit. However, again, I concur with the point that Chris made earlier: there must be a starting point. If you make that starting point too wide, the effect will become diluted. We need to focus on a specific area; in Wales, domestic premises—single private dwellings—represent the highest risk in relation to fire deaths and injuries. That is the starting point; that is the point at which you make your real impact, and that is what sells it in the long term to all of those others.

[140] **Mr Enness:** It is no accident that there is a separate descriptor. If you look at the description of residential occupancy in BS 9251, it does not include the single private dwelling, where the average person would live.

[141] **Peter Black:** I have one more question on definition. In your submission, you suggest that the term 'sprinkler system' should be replaced with the term 'automatic water suppression system'. Can you expand on why you consider that to be a more appropriate term?

[142] **Mr Cassar:** Sprinklers are a specific product, but there are always ongoing research and design advancements within that. The term 'automatic water suppression system' gives an umbrella definition of the different types of systems that can do the same or a similar job. Therefore, rather than making it specific to sprinklers, referring to 'automatic water suppression systems', it gives a greater range of products that can be utilised, also working to a standard.

[143] **Peter Black:** It trips off the tongue better too. [*Laughter.*]

[144] **Mr Cassar:** It does, yes. You do not need a glass of water every time you say it.

[145] **Huw Lewis:** That brings us to the end of the questions stipulated. If Members have any supplementary questions to ask or additional worries that they want to air, now is the time.

[146] **Mark Isherwood:** Going back to an earlier answer, there is no requirement to fit sprinklers at present, but there is a requirement to fit fire doors and other systems. Can you expand, in terms of domestic dwellings, on what requirement exists to fit fire doors and other systems at present?

[147] **Mr Ennes:** Absolutely. There is actually very little passive fire protection that you need to put in domestic dwellings. It is usually where there is an increased risk—Ray mentioned town houses. If you have a room in the loft, you must provide 30 minutes of protection for the point of exit. So, very little protection is required for domestic occupancy. Obviously, sprinklers would not only be beneficial, but one of only a few bog-standard safety systems that you would have to bring in to the home.

[148] **Mr Hanks:** Also, in the average new build, where you can walk from your garage into your kitchen and the rest of the house, there is fire separation, such as self-closing doors. If there are rooms above a garage, the ceiling in the garage must have a fire resistance standard of one hour.

[149] **Mark Isherwood:** So, is there a direct trade-off in cost terms in domestic dwellings between one method and the other. If sprinklers were installed, could savings be made on fire doors?

[150] **Mr Hanks:** Yes, you could reduce production costs with the provision of the automatic water suppression system.

[151] **Mr Cassar:** You are allowed design freedom.

[152] **Mr Enness:** It is a more powerful protection measure than any passive system. Ray used the term 'design freedom'; this would allow you perhaps to have different designs or layouts in your home to what you would ordinarily be allowed with a passive system. So, there would be a clear trade-off, and that is acceptable.

[153] **Mark Isherwood:** It is voluntary at the moment, as opposed to a requirement is it not, except in specified circumstances, as you described?

[154] **Mr Enness:** There are certain requirements for passive systems—Colin made the point about garages—contained in building regulations.

[155] **Mr Hanks:** Building regulations require, for example, all new housing to have hard-wired smoke detectors.

[156] **Mark Isherwood:** Presumably falling outside this Order, from what you said earlier, would also be residential homeless projects, youth foyers and so on.

[157] **Mr Enness:** Sorry?

[158] **Mark Isherwood:** Things like residential homeless projects, youth foyers and so on; would they fall outside this definition?

[159] **Mr Enness:** It depends on where you are going to house them. If they are going to be in a range of new-build homes, they would quite clearly fall within the scope of this LCO. If you are going to put them into a series of existing flats, I would suggest that you may want to look at different safety measures. In time, I would like to think that we would be looking at providing a greater level of safety across the board, but, at the moment, it is too big a jump. If we set our sights too high, we will not achieve anything.

[160] **Peter Black:** I think the point that Mark is making is that new builds are the nearest that you will get to new-build HMOs but, as they would be publicly funded, you could go down that avenue to make stipulations.

[161] **Mr Enness:** The Housing Act covers HMOs. We would like to see changes to that. For example, perhaps, in future, you would have to fit a sprinkler system in order to get a licence.

[162] **Huw Lewis:** Before we finish, I have an overhanging concern about this definition of domestic occupancy and that maximum room size of 40 sq m. I know that you have addressed this, but, just for my own peace of mind, would you consider dropping us a written note about exactly why you think that would be okay? That maximum individual room size of 40 sq m worries me in terms of what it might lock out. Maybe I am misinterpreting it.

10.50 a.m.

[163] **Peter Black:** It might also be of interest to get a legal note from our side because, if you adopt a definition for a piece of legislation, that definition does not always have to relate to existing regulations such as building regulations—you can set your own definition. You could use the term ‘domestic occupancy’, but it would not have to relate to the British standard; it could relate to something else, or you could define it yourself.

[164] **Huw Lewis:** Okay. We are getting into further levels of detail here, and that is our job, but we need to ensure that we get that one right because 40 sq m still strikes me as not being an enormous size these days, particularly in terms of knock-throughs, conversions, and so on.

[165] It remains for me to thank our colleagues from the fire and rescue services for their attendance, input and willingness to get involved in the detail of our questions; it is much appreciated. I wish you a safe journey home.

Daeth y cyfarfod i ben am 10.51 a.m.
The meeting ended at 10.51 a.m.