Summary: Intervention & Options		
Department: **Transport**	Title: **Rail Vehicle Accessibility (Non-Interoperable Rail System) Regulations 2010**	
Stage: Final	**Version:** 1.1	**Date:** 23 February 2010
Related Material: Consultation on draft Rail Vehicle Accessibility (Interoperable Rail System) Regulations		
Available to view at: www.dft.gov.uk/consultations		
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What is the problem under consideration? Why is government intervention necessary?

The Disability Discrimination Act 1995 (as amended) requires all light rail vehicles (for these purposes, “light rail” means metro, underground and tram systems and prescribed modes of guided transport) to comply with modern accessibility standards by no later than 1 January 2020.

What are the policy objectives and the intended effects?

The policy objectives are to ensure that all light rail vehicles are fully accessible to disabled people by no later than 1 January 2020. This is in line with similar provisions governing the accessibility of heavy rail vehicles (trains), buses and coaches and is intended to facilitate an accessible transport chain thereby reducing social exclusion.

What policy options have been considered? Justify any preferred option.

The Disability Discrimination Act 1995 (as amended) requires an end date to be set and ensures that it must be no later than 1 January 2020, so to “do nothing” is not therefore possible. Two options have been considered: 1 January 2020 is the Government's preferred option. Setting the end date at 1 January 2017 has also been considered but estimates indicate that this would increase the associated costs of compliance and would present significant problems in programming overhaul work.

When will the policy be reviewed to establish the actual costs and benefits and the achievement of the desired effects?

It will only be possible to establish the actual costs and benefits of setting an end date once it is reached.

Ministerial sign-off For Final stage Impact Assessment:

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options

Signed by the responsible Minister: Chris Mole Date: 23 February 2010

Summary: Analysis & Evidence	
Policy Option: **1**	Description: **End date of 1 January 2020**

Costs

Annual Costs		Description and scale of **key monetised costs** by 'main affected groups'
One-off	**Yrs**	Costs will mainly fall on light rail vehicle owners who will need to ensure that existing, non-compliant, vehicles are made compliant through refurbishment.
£ 41.8 million	10	
Ave Annual Cost (excluding one-off)		
£ N/A		**Total Cost** (PV) **£ 28 million**
Other **key non-monetised costs** by 'main affected groups'		

Benefits

Annual Benefits		Description and scale of **key monetised benefits** by 'main affected groups'
One-off	**Yrs**	The main benefit will be giving confidence to disabled people that all light rail vehicles are accessible. This should increase patronage levels and thus operator revenue. Other passengers, for example pregnant women and those travelling with small children, will also benefit. It has not been possible to monetarise these benefits but the Department for Transport has initiated research into this area.
£		
Ave Annual Benefit (excluding one-off)		
£		**Total Benefit** (PV) **£**
Other key non-monetised benefits by 'main affected groups': The ability for disabled people and their companions to travel with greater levels of safety and comfort will itself be beneficial to these groups of people.		

Key Assumptions/Sensitivities/Risks: **The costs are based on previous estimates updated where possible in light of experience of similar issues on heavy rail vehicles. They have been based on current views of the number of vehicles likely to require refurbishing by the end dates proposed to make them accessible – changes in planned refurbishment programmes and proposed replacement of vehicle fleets could impact upon the cost of this measure in future. Benefits expected from setting an end date will only be fully realised if current trends towards increasing station and other infrastructure accessibility continue.**

Price Base Year 2008	Time Period Years 10	**Net Benefit Range** (NPV) **£**	**Net Benefit** (NPV Best estimate) **£**

What is the geographic coverage of the policy/option?			Great Britain	
On what date will the policy be implemented?			March 2010	
Which organisation(s) will enforce the policy?			ORR	
What is the total annual cost of enforcement for these organisations?			£ Negligible	
Does enforcement comply with Hampton principles?			Yes	
Will implementation go beyond minimum EU requirements?			N/A	
What is the value of the proposed offsetting measure per year?			£ N/A	
What is the value of changes in greenhouse gas emissions?			£ N/A	
Will the proposal have a significant impact on competition?			No	
Annual cost (£-£) per organisation (excluding one-off)	Micro	Small	Medium	Large
Are any of these organisations exempt?	No	No	N/A	N/A

Impact on Admin Burdens Baseline (2005 Prices)					(Increase - Decrease)
Increase of	£ None	Decrease of	£ None	**Net Impact**	**£** Negligible

Key:	**Annual costs and benefits: Constant Prices**	**(Net) Present Value**

Summary: Analysis & Evidence	
Policy	Description: **End date of 1**

Costs

Annual Costs		Description and scale of **key monetised costs** by 'main affected groups'
One-off	**Yrs**	Costs will mainly fall on light rail vehicle owners who will need to ensure that existing, non-compliant, vehicles are made compliant through refurbishment. An earlier end date would capture more older fleets and significantly impact on the timing of planned refurbishment of other fleets.
£ 47.8 million	7	
Ave Annual Cost (excluding one-off)		
£ N/A		**Total Cost** (PV) **£ 36 million**
Other **key non-monetised costs** by 'main affected groups'		

Benefits

Annual Benefits		Description and scale of **key monetised benefits** by 'main affected groups'
One-off	**Yrs**	The main benefit will be giving confidence to disabled people that all light rail vehicles are accessible. This should increase patronage levels and thus operator revenue. Other passengers, for example pregnant women and those travelling with small children, will also benefit. It has not been possible to monetarise these benefits but the Department for Transport has initiated research into this area.
£		
Ave Annual Benefit (excluding one-off)		
£		**Total Benefit** (PV) **£**
Other key non-monetised benefits by 'main affected groups': The ability for disabled people and their companions to travel with greater levels of safety and comfort will itself be beneficial to these groups of people.		

Key Assumptions/Sensitivities/Risks: **The costs are based on previous estimates updated where possible in light of experience of similar issues on heavy rail vehicles. They have been based on current views of the number of vehicles likely to require refurbishing by the end dates proposed to make them accessible – changes in planned refurbishment programmes and proposed replacement of vehicle fleets could impact upon the cost of this measure in future. Benefits expected from setting an end date will only be fully realised if current trends towards increasing station and other infrastructure accessibility continue.**

Price Base Year 2008	Time Period Years 7	**Net Benefit Range** (NPV) **£**	**Net Benefit** (NPV Best estimate) **£**

What is the geographic coverage of the policy/option?	Great Britain
On what date will the policy be implemented?	March 2010
Which organisation(s) will enforce the policy?	ORR
What is the total annual cost of enforcement for these organisations?	£ Negligible
Does enforcement comply with Hampton principles?	Yes
Will implementation go beyond minimum EU requirements?	N/A
What is the value of the proposed offsetting measure per year?	£ N/A
What is the value of changes in greenhouse gas emissions?	£ N/A
Will the proposal have a significant impact on competition?	No

Annual cost (£-£) per organisation (excluding one-off)	Micro	Small	Medium	Large
Are any of these organisations exempt?	No	No	N/A	N/A

Impact on Admin Burdens Baseline (2005 Prices)					(Increase - Decrease)
Increase of	£ None	Decrease of	£ None	**Net Impact**	**£** Negligible

Key:	**Annual costs and benefits: Constant Prices**	**(Net) Present Value**

Contents

1 Introduction

1.1 The Government is committed to "supporting comprehensive, enforceable civil rights for disabled people against discrimination in society[18]…" It also has an ambitious vision for improving the life chances of disabled people so that, by 2025, disabled people in Britain have full opportunities and choices to improve their quality of life and will be respected and included as equal members of society[19]. Providing an accessible transport system is an important element in achieving these objectives including, in respect of this impact assessment, ensuring that the widest possible range of the estimated 10.6 million disabled people in Britain[20] are able to access our tramways and underground and metro systems.

1.2 Since 4 December 2006, the Department, in common with all public authorities, has had a legal duty to promote equality for disabled people under the Disability Equality Duty[21]. The Duty applies to all the Department's policies and functions and, in developing its proposals for the implementation of this package of measures, we have considered our obligations under this legislation and the impact the new regulations will have on disabled people.

1.3 In the context of this impact assessment, this means enabling disabled people to use light rail services with the same level of safety, comfort and ease that non-disabled people have. It is also Government policy to encourage more use of light rail services; ensuring that disabled people can do so is an important aspect of this.

1.4 However, the Government is also mindful of the importance of not placing excessive financial burdens on the light rail industry. Improving access to rail vehicles is not cost free and it is necessary to seek a balance between the additional costs that may be placed on the industry and the reasonable expectations of disabled people that they should be able to use light rail services in the same manner as other members of society.

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[18] Labour Party Manifesto 1997. Available from www.labour.org.uk.

[19] Improving the life chances of disabled people, Prime Minister's Strategy Unit, January 2005. Available from www.strategy.gov.uk/downloads/work_areas/disability/disability_report/pdf/disability.pdf.

[20] Family Resources Survey: Disability Prevalence 2007/08, Office for Disability Issues, 2008. Available from www.officefordisability.gov.uk/docs/res/factsheets/disability-prevalence.pdf.

[21] The duty was introduced by the Disability Discrimination Act 2005 to ensure that disability equality is mainstreamed throughout the public sector. Many public authorities, including the Department, are also subject to a specific duty to publish a Disability Equality Scheme. These are available on the Department's web site at www.dft.gov.uk.

1.1 Background

1.1.1 This impact assessment ("IA") relates to the Government's commitment to set an end date by which time all rail vehicles must be accessible. Measures were included in the in the Disability Discrimination Act ("DDA") 1995 (as amended by the DDA 2005) to provide a duty to set an end date which the Act ensures can be no later than 1 January 2020. This date is consistent with provisions already in force covering the accessibility of buses and coaches[22] and is designed to facilitate an accessible transport chain.

1.1.2 Part 5 of the DDA 1995 enabled the introduction of regulations specifying technical requirements making rail vehicles accessible to disabled people. The Rail Vehicle Accessibility Regulations 1998[23] ("RVAR 98") were made under these powers and have applied to all new rail vehicles entering service since 31 December 1998. Over 5,600 accessible rail vehicles have already been introduced into service.

1.1.3 However, new European accessibility standards (the Technical Specification of Interoperability for Persons with Reduced Mobility or "PRM TSI") have applied to heavy rail vehicles (trains) since 1 July 2008. Its introduction made it necessary for the Government to come forward with new legislation, the Rail Vehicle Accessibility (Interoperable Rail System) Regulations 2008[24], to prevent the dual application of domestic and European accessibility regimes to rail vehicles which would be subject to the PRM TSI. These Regulations removed those heavy rail vehicles from the scope of RVAR and Part 5 of the DDA 1995 and set an end date, of 1 January 2020, by which time all rail vehicles subject to the PRM TSI must be compliant with accessibility requirements.

1.1.4 As a result, the RVAR regime now only applies to light rail vehicles (for the purposes of this impact assessment, "light rail" means metro, underground, tram systems and prescribed modes of guided transport). This reduction in scope has prompted a reassessment of the RVAR regime and the Government has come forward with a number of proposed revisions to reflect this.

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[22] The Public Service Vehicles (Accessibility) Regulations 2000 [S.I. 2000/1970]. Available from www.opsi.gov.uk/si/si2000/uksi_20001970_en.pdf.
[23] S.I. 1998/2456. Available from www.opsi.gov.uk/si/si1998/19982456.htm.
[24] S.I. 2008/1746. Available from www.opsi.gov.uk/si/si2008/pdf/uksi_20081746_en.pdf.

1.1.5 This IA focuses on the benefits and costs and issues associated with options for setting an end date by which time all light rail vehicles must be accessible – although options surrounding the other proposals for amending the RVAR regime which are contained in the Rail Vehicle Accessibility (Non-Interoperable Rail System) Regulations 2010 ("RVAR 10") have also been presented.

1.1.6 Since most of the changes being proposed to the technical requirements of RVAR 10 generally provide for the same levels of accessibility but allow alternative solutions to those originally contained within RVAR 98 we believe that this could cause costs to fall, as additional standard designs become permissible. The small number of more onerous technical accessibility requirements have generally been incorporated into components as best practice already, and frequently mirror requirements in the PRM TSI so there should be advantages through standardising equipment. In any event, their compulsory introduction is staggered in RVAR 10 to allow sufficient time to be programmed into planned new build and refurbishment work. We do not, therefore, believe that they create any significant new costs overall.

1.1.7 Due to the small number of operators affected, this IA focuses on these companies as a whole rather than identifying a typical business.

1.1.8 These provisions apply to Great Britain only. Northern Ireland has its own separate legislation governing rail vehicle accessibility which is the responsibility of the Department for Regional Development.

2 Preparation of the impact assessment

2.1 This final IA has been prepared on the basis of scoping work involving both informal and formal consultation with a number of key stakeholders and a review of the existing evidence.

2.2 It has proved difficult to obtain accurate figures for discrete programmes of work, such as fitting passenger information systems ("PIS"), to particular light rail vehicle fleets. Some real life costs have been obtained for similar work on heavy rail fleets, and these have been used to inform the estimates used in this IA as the best available source of evidence. Whilst we accept that figures for individual fleets could vary considerably, we note that stakeholders were unable to provide any more accurate figures for the likely costs of setting the end date during consultation.

2.3 A twelve week public consultation on a draft of RVAR 10 was completed on 3 July 2009. The consultation paper[25] was distributed to over 450 stakeholders. 42 responses were received (of which 33 (79 per cent) were from the railway industry, 6 (14 per cent) from organisations for, or representing, disabled people and 3 (7 per cent) from government or other organisations). A full summary of the responses received is available on the Department's web site[26]. Where applicable, the outcome of that exercise has been reflected below.

[25] Available from www.dft.gov.uk/consultations/closed/rvarconsul.
[26] Available from www.dft.gov.uk/consultations/closed/rvarconsul/responses.pdf.

3 Setting the end date

3.1 The DDA 2005 contains provisions requiring the Secretary of State to set an “end date" by which time all rail vehicles must be accessible and provides that this can be no later than 1 January 2020. This is the date already in place for heavy rail vehicles subject to the PRM TSI[27] and is also the Government's preferred date for light rail vehicles since we believe it provides the most appropriate balance between accessibility and costs.

3.2 The following sections discuss the impacts and benefits of setting the end date and the policy options which have been considered during the development of these proposals.

3.1 Sectors and groups affected

3.1.1 The provisions will affect the operators of light rail vehicles. There are only a small number of operators in this sector, by far the largest of which is London Underground Limited. The rest of the industry is characterised by smaller operators and there are only ten light rail networks currently in operation in Great Britain.

3.1.2 In addition, the small number of individual rail vehicles (approximately 17) introduced into service after 31 December 1998 (when RVAR 98 first applied) and operated on heritage and tourist networks will also be covered. It is the Government’s intention to exempt rail vehicles operated on these networks which were introduced prior to that date from these requirements in their entirety. The Rail Vehicle Accessibility (Networks) Exemption Order 2010 will come into force at the same time as RVAR 10 for this purpose.

3.1.3 Any additional costs for public transport operators of light rail vehicles are expected to be incurred up front and factored into the support required from Government. Indeed, as the Government’s policy of setting an end date has been known since 2001, and its preference for 1 January 2020 was first announced in Parliament in 2004, necessary funding has already been factored into recent financial support from the Department. This has been instrumental in enabling Sheffield, Manchester and Tyne & Wear Metro to update their older, pre-RVAR, vehicles and in enabling Blackpool to acquire a new tram fleet. Further, the costs of meeting an end date have been the

[27] The date was set in the Rail Vehicle Accessibility (Interoperable Rail System) Regulations 2008 [S.I. 2008/1746]. Available from www.opsi.gov.uk/si/si2008/pdf/uksi_20081746_en.pdf.

subject of discussion between London Underground Limited and Tube Lines for some time. Indeed, in 2008, it was necessary for the PPP Arbiter to decide on a compromise figure – which we now believe was overly pessimistic (see **Section 3.5**).

3.1.4 Enforcement of RVAR 10 will be the responsibility of the Office for Rail Regulation ("ORR") and more information can be found in **Section 4.2**. Depending on the severity of the breach, it is likely that ORR will only prosecute light rail vehicle operators if persistent and systematic non-compliances can be demonstrated. Since ORR's Health and Safety at Work Act ("HSWA") enforcement regime is already in operation for health and safety issues across both heavy and light rail vehicles and they already have responsibility for accessibility issues on heavy rail vehicles via the PRM TSI, enforcement of light rail vehicle accessibility provisions is not expected to result in any significant extra administrative costs.

3.2 Benefits

3.2.1 As noted in the introduction, the number of disabled people covered by the definition of disability in the DDA 1995 is estimated to be around 10.6 million and this figure is likely to increase with an aging population. There is also an increasing expectation of independent mobility later into life.

3.2.2 Among adults, the most frequent form of disability relates to mobility impairments. Approximately 70 per cent of disabled adults have locomotion problems – some 6.5 – 7.5 million people – and would potentially benefit from fully accessible rail vehicles. This number includes an estimated 800,000 wheelchair users.

3.2.3 However, it should be remembered that RVAR does not only benefit people with mobility impairments. There are also substantial numbers of visually-impaired people and even more with some degree of hearing loss who will benefit from the changes brought about by the implementation of the regulations. A large proportion of disabled people also have more than one disability; about a quarter of all disabled adults have some degree of visual impairment and 40 per cent have some loss of hearing. It is reasonable to conclude that the great majority of disabled people will potentially benefit from the regulations.

3.2.4 Due to the incidence of multiple disabilities, many people should benefit in more ways than one: for example, from improvements in

physical accessibility to the provision of audio-visual passenger information systems.

3.2.5 Although it applies to heavy rail services only, the 100,000 Disabled Person's Railcards[28] in circulation provide a useful indication of the travel patterns and experiences of disabled people when using rail services. A survey of Railcard holders, undertaken in 2005, emphasised the range of disabilities found among users. 35 per cent reported that they had mobility impairments with a further 20 per cent using wheelchairs or mobility scooters. 21 per cent were deaf or hard of hearing and 24 per cent were blind or partially sighted.

3.2.6 Approaching two-thirds of the Railcard holders surveyed had made a rail journey during the month preceding the survey. Indeed, 22 per cent of Railcard holders take an average of at least one trip a week. With the increasing accessibility of both rail vehicles and infrastructure, we can expect patronage by disabled people to continue to rise across all rail services.

3.2.7 Another research survey undertaken by MORI[29] (2001-2002) on behalf of the Disabled Persons Transport Advisory Committee[30] ("DPTAC") found eight per cent of disabled people used local rail, five per cent used light rail, train or London Underground services and two per cent used long distance rail at least once a month. Comparison with a survey commissioned by the Commission for Integrated Transport (2001) among members of the general public in England shows that substantially fewer disabled people had ever used local rail services (30 per cent versus 47 per cent) or long distance rail (23 per cent verses 41 per cent).

3.2.8 The DPTAC MORI survey also found that, among disabled people, there was “a perception that (rail) vehicles are badly designed”. When asked, “What if anything, would have to improve for you to consider using rail services more?”, eight per cent mentioned accessibility and five per cent easier access to stations/ platforms. Toilet facilities/ accessible toilets, more announcements/information and more helpful staff were each mentioned by three per cent.

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[28] For more information see www.disabledpersons-railcard.co.uk.
[29] Available from www.dptac.gov.uk/research/apt/pdf/apt.pdf.
[30] DPTAC are the Government's statutory advisers on the public passenger transport needs of disabled people. For more information about the Committee's work, please see www.dptac.gov.uk.

3.2.9 While it is not possible to quantify results from these surveys in terms of additional patronage, the MORI survey suggests that around 20-25 per cent might make more use if rail services were made more accessible in the ways intended by the DDA 1995. Twenty per cent equates to about two million adult disabled people. It should be noted, however, that the majority of the 5,600 RVAR-compliant rail vehicles currently in service had not been introduced at the time of the survey.

3.2.10 The introduction of legislation that sets an end date for all light rail vehicles to become subject to RVAR and the application of accessibility requirements to older, pre-RVAR, trains when they are refurbished marks a major step forward in improving opportunities for independent mobility for disabled people. Although this is the primary purpose of these provisions, it should be remembered that facilities which meet the needs of disabled people will also benefit other passengers, particularly older people, people travelling with small children and those carrying heavy shopping or luggage. For example, the significant increase in bus patronage within London has partly been attributed to increasing numbers of parents with buggies taking advantage of the increasing accessibility of the capital's bus fleet, all of which now include features such as ramps and low-floor or suspension "kneeling" systems.

3.2.11 We recognise that providing physically accessible rail vehicles does not necessarily make light rail services fully accessible to all disabled people. The Department is working closely with the light rail industry to ensure that the needs of disabled people are also understood and addressed in associated operational matters. In particular, we are contributing towards a number of projects aimed at identifying and removing other barriers to accessibility and how these might impact on, and benefit, all passengers such as the Office for Disability Issues' Longitudinal disability survey of Great Britain which will track disabled peoples' experiences over time.

3.2.12 It is also important to consider that, as rail services become more accessible to disabled passengers, they will also open up to those who want or need to travel with them. The survey mentioned above found that almost 60 per cent of Disabled Persons Railcard users usually travelled with a companion. Overall, it is likely that, as light rail operators move towards full accessibility, they will see an increase in patronage - and therefore fare revenue - from disabled people, their companions and others who will benefit from more accessible services.

3.3 Risks and uncertainty

3.3.1 There are around 10.6 million adults (and 0.7 million disabled children) in Great Britain covered by the definition of disability in the DDA 1995. This suggests that some 20 per cent of the adult population has a long standing health problem or one or more disabilities. Whilst age and disability are not synonymous, it is clear there is a strong correlation between them, and so this figure is set to increase dramatically over the next few decades. For example, forecasts predict that the number of people aged over 65 will increase by over 40 per cent over the next 40 years while the population as a whole is expected to rise by only seven per cent. There are already more people over the age of 65 than under the age of 16 in Great Britain. Approximately one-third of older (65-plus) people are disabled and they account for two-thirds of disabled people.

3.3.2 It is clear from these figures that there will be a continuing increase in the number of disabled people who will have legitimate aspirations of increasing mobility until later into life. If the measures covered by this IA are not implemented, disabled people could continue to face discrimination in accessing light rail services that other members of society do not, increasing social exclusion and having an impact on quality of life.

3.3.3 Implementation will reduce the risk that many disabled people might be unable to access light rail services, or will only be able to do so with considerable difficulty. The Government recognises the important role light rail services have in facilitating people's access to employment, education, healthcare and leisure services. These proposals, when combined with initiatives such as London Underground Limited's Accessibility Strategy[31], will continue the process of removing those barriers to rail travel that some disabled people continue to experience. The Department's "Access for All" fund[32] supports similar improvements in accessibility on heavy rail infrastructure.

3.3.4 It has proved difficult to assess the exact costs of the accessibility improvements required to meet the end date and therefore quantify these effectively. However, by working with light rail

[31] For more information about the Strategy see www.tfl.gov.uk/gettingaround/transportaccessibility/5966.aspx.
[32] For more information about the Fund see www.dft.gov.uk/transportforyou/access/rail/railstations.

vehicle owners and operators now to assess what works will be required to enable specific light rail vehicle fleets to continue in service past 1 January 2020, this will give them some degree of certainty about the costs involved. The Department will continue to participate in this dialogue to ensure that accessibility improvements are scheduled in advance of the end date to enable all passengers to benefit.

3.4 Setting the end date - options

3.4.1 The DDA 2005 placed a legal obligation on the Secretary of State to set of an end date, by which time all rail vehicles must be accessible, of no later than 1 January 2020. "Doing nothing" is therefore not considered to be a viable option. Two other options were evaluated and it is noted that the date chosen has a marked effect on the costs associated since the earlier the end date is set, the more non-compliant light rail vehicles that will have to be adapted or replaced.

Option 1 - An end date of 1 January 2020

3.4.2 This is the Government's preferred option. Adopting the same date as that which has already been set for heavy rail vehicles subject to the PRM TSI will provide consistency of application across the industry. It also dovetails with end dates already in place for all buses and coaches which must also be fully accessible by the same date[33] and, we believe, represents the most appropriate balance between accessibility and costs.

Costs are expected to be approximately **£41.8 million**.

Option 2 - An end date of 1 January 2017

3.4.3 Setting an earlier end date of 1 January 2017 would have additional cost implications as well as presenting difficulties in programming of overhaul work to rectify non-compliances. The nature of light rail operations means passenger services might also need to be reduced due to the requirement to remove rail vehicles from service in order to carry out this work. For these reasons we believe that

[33] The end dates for Buses and Coaches used on local or scheduled services were set in the Public Service Vehicles Accessibility Regulations 2000 [S.I. 2000/1970]. Available from www.opsi.gov.uk/si/si2000/uksi_20001970_en.pdf.

setting the end date at 1 January 2017, or any earlier date, would not be practicable.

Costs are expected to be approximately **£47.8 million**.

3.4.4 It should be noted that the potential difference in costs between 2020 and 2017 is not the prime driver for the former being the Government's preferred option, but rather consistency with the date already fixed for heavy rail and the timing of work to make certain fleets more accessible.

3.5 Analysis of impacts

3.5.1 This section assesses the impacts of setting the end date on the various light rail vehicle operators who will be affected by these amendments. It identifies the present position with rolling stock already in service and explores plans for the refurbishment or replacement of these light rail vehicles. It also provides an estimation of the costs and other effects that setting the end date is likely to have against this background.

3.5.2 The costs should be viewed against the background of the Department's "targeted compliance" approach to accessibility. Whilst the latest fleets of light rail vehicles are regulated under RVAR, the Government recognises that it does not benefit anyone to pull older rail vehicles out of service and expend effort on those minor non-compliances which do not materially reduce the accessibility of the rail vehicle but which can, nonetheless, cost a significant amount to rectify.

3.5.3 We are working closely with light rail vehicle operators to assess their older, pre-RVAR, fleets and identify those existing non-compliances which truly prevent disabled people (and other passengers) from travelling safely and without experiencing anxiety. These are being considered on a case-by-case basis following consultation with DPTAC, as appropriate. In time, exemptions for these minor non-compliances will be necessary if it is planned that those vehicles will operate beyond 1 January 2020. The final say on whether exemptions are granted remains with Parliament.

London Underground Limited

3.5.4 London Underground Limited (“LU”) is by far the largest of the light rail vehicle operators affected by the proposals. It operates some

4,050 rail vehicles whose conventional life is 40 years although, like surface heavy rail vehicles, some LU stock continues in use for longer than this.

3.5.5 All of the LU sub-surface stock (Metropolitan, Circle, Hammersmith & City and District) and some of the tube stock (Victoria and Piccadilly) will be replaced before 2017. It is not anticipated that the stock on the Bakerloo Line (36 trains) will be replaced by 2017, but rather by 2020 so some interim solution would be needed if the earlier date were chosen. Four lines, however, have stock that was brought into service during the 1990s and which will not be due for replacement until after 2030.

3.5.6 These four lines (Central, Waterloo and City, Northern and Jubilee) comprise 259 trains out of the total present fleet of almost 600 trains. As this stock is of relatively recent build, it is compliant in many respects but with some important exceptions (particularly on the Central and Waterloo & City Lines). The logical time to make these fleets more accessible would be around 2017. However, there are some areas where achieving compliance would either be very expensive or not feasible.

3.5.7 LU has well established plans for improving access to its platforms from the street[34] which will make a significant proportion of stations on the network step-free by 2010 and deliver additional step-free projects to support the Olympic and Paralympic Games in 2012. We accept that, for cost and civil engineering reasons, the entire LU network will not become step-free for many decades after 2019. RVAR requires level boarding between the train and platform (or the provision of a boarding device). The Government have shown, through the recent exemption order for the new Victoria Line fleet[35], that it will approach this issue pragmatically but the initial starting point for providing access between the train and the platform should be at those stations with step-free access to the street or to other lines (accepting that severely curved platforms may make this impossible).

3.5.8 The Department has been working with LU to set out, on a "targeted compliance" basis, what its expectations for levels of

[34] For more information about the Strategy see www.tfl.gov.uk/gettingaround/transportaccessibility/5966.aspx.
[35] The Rail Vehicle Accessibility (London Underground Victoria Line 09TS Vehicles) Exemption Order 2008 [S.I. 2008/2969]. Available from www.opsi.gov.uk/si/si2008/pdf/uksi_20082969_en.pdf.

accessibility on the four newest tube fleets are. While the details of what will be done during the planned refurbishment of the tube stock have yet to be agreed, it is our belief that the indicative figure for full RVAR compliance, provided by Transport for London in 2003 - £71.1 million, will be substantially reduced through the application of the targeted compliance approach and changes to the technical requirements within RVAR itself. An example of the latter includes our proposal to permit oval section handrails where headroom is limited – the cost for replacing these would therefore no longer apply.

LU - Detailed analysis

3.5.9 In 2003, LU estimated costs as between £30,000 and £50,000 per vehicle, which (when fixed at a middle figure of £40,000) gave the previously quoted total of £71.1 million for an end date of 2020 (the Bakerloo Line would also need to be considered if the end date were set at 2017).

3.5.10 In 2008, during discussions between LU and Tube Lines (which manages the 1,077 vehicle strong Northern and Jubilee Line fleets), the independent PPP Arbiter set RVAR compliance costs as approximately £21,000 per vehicle for those two fleets i.e. half that estimated in 2003.

3.5.11 Although LU have been unable to break these figures down further, it is our firm belief that the application of targeted compliance will significantly lower these costs. We do not believe that £21,000 per vehicle for these two fleets is justifiable on cars where practically the only changes required will be the colour of the Passenger Information System ("PIS") displays and provision of contrasting flooring. We acknowledge that some additional cost will be necessary on those cars within each train which will be designated as being wheelchair accessible, where some work to the flexible spaces currently provided will be needed.

3.5.12 Northern Line stock was introduced into service in 1995-96 and will not be due for replacement until around 2040. Current Jubilee Line trains were put into service in 1996-97 and again will not be replaced until around 2040.

3.5.13 Although there are many flexible spaces provided on the Jubilee and Northern lines, the size of the space is smaller than the standards for a wheelchair space set out in RVAR of 1,300mm x

750mm. Also, the spaces do not contain a bulkhead against which the wheelchair user can back. While it would be feasible to install this kind of support, it may not be possible to achieve the 700mm prescribed without causing problems through narrowing the aisle width. This would affect general passenger egress and, in particular, could cause problems in an emergency evacuation. We believe that some improvement work to the flexible spaces chosen to be nominated as wheelchair spaces will be possible, but expect that full compliance is unlikely and that exemptions will need to be sought. Until greater detail is known about the challenges and costs associated with this work, we believe that the figure previously quoted in 2003, of £10,000 per vehicle should rather be applied per space, with two spaces needed on the Jubilee Line and four probably needed on the Northern Line (to accommodate complications caused by the Kennington loop).

3.5.14 RVAR requires that the floor of a vestibule adjoining a doorway should contrast with the adjacent floor in the saloon of the vehicle. It is reasonable to assume that the floor coverings on these fleets will be due for replacement at some point before 2020 (by which time the original flooring will be over 20 years old). Costs provided on heavy rail, where work on delivering the end date is more advanced, suggests that floor coverings (even when fire requirements and heavier usage are included) can be replaced for a fraction of the figure suggested in 2003 (£500 per vehicle versus £20,000 quoted previously).

3.5.15 The vehicles on the Northern and Jubilee lines are fitted with both visual and audible information systems, although the internal visual information on the older Jubilee Line vehicles is composed of red lettering on a black background and does not meet RVAR contrast requirements. This will need to be changed to a different combination of colours.

3.5.16 In summary, we believe that practically the only work required across all 1,077 vehicles on the Northern and Jubilee Lines is compliant flooring and PIS contrast, for which we have estimated a cost of £10,000 per every vehicle (even though we expect that only the 354 older vehicles on the Jubilee Line will require work to their PIS). Additional work would be needed to improve 550 existing flexible spaces, for which we have estimated a further £10,000 per space. Overall, the costs for these two fleets is estimated to be approximately £16.3 million.

3.5.17 The Central Line rolling stock comprises 85 trains of eight cars, with another five similar units (of four cars) on the Waterloo and City Line. This stock, which came into service in 1993-95, is not due to be replaced until around 2038, although there are indications that this could happen much sooner for other reasons. Significant areas of non-compliance include lack of a visual passenger information, lack of colour contrast on handrails and between vestibule and saloon floors and, most significantly, no wheelchair spaces.

3.5.18 The Central Line rolling stock does not have any flexible spaces which could be reconfigured as wheelchair spaces. Wheelchair spaces could be provided only by removing seats, which would be expensive, particularly as the seats are used to conceal electrical and pneumatic equipment, for which space would have to be found elsewhere, if such space exists. In 2003, it was estimated that the cost of providing wheelchair spaces in one car would be £20,000, although we expect that a cost of £20,000 for each space may be more realistic (with three spaces needed per Central Line unit and two on the Waterloo & City).

3.5.19 In summary, we believe that the work required across all 700 vehicles on the Central and Waterloo & City Lines includes contrasting flooring and handrails and visual PIS, the cost of which we have taken as £21,000 per vehicle (taken from the PPP Arbiter's compromise costs on the Northern and Jubilee Lines and indicative costs for fitting PIS on heavy rail). 265 wheelchair spaces would also need work to fit wheelchair spaces, at perhaps £20,000 per space. Overall, the cost for these two fleets is estimated to be approximately £20 million. While LU have suggested that these fleets could be replaced before 2020 for other reasons, the cost of making them more accessible has been included in the figures for setting the end date at both 2017 and 2020.

3.5.20 The Bakerloo Line fleet may be augmented by units displaced from the Victoria Line. The fleet on this line is due for replacement only by 2020, so an end date of 2017 would mean that some refurbishment work would be necessary, even though the fleet had only a short operating life left. This is one reason why 2017 is not the Government's preferred option.

3.5.21 For the purpose of this IA, we have assumed that the 36 train Bakerloo Line fleet would need to undergo work on a similar scale to that needed on the Central Line (above). We have also assumed that the 216 vehicles would each need £21,000 of work, with 72 wheelchair

spaces being needed at perhaps £20,000 per space. Therefore, the cost for this fleet is approximately £6 million, which would only occur if the end date was set at 2017, since all the indications are that this fleet will have been replaced by 2020.

3.5.22 It should be noted that the rolling stock on these five lines (Central, Waterloo & City, Bakerloo, Northern and Jubilee) all have other common non-compliances. These are discussed below and may be resolved in other ways and so are not costed here. Due to their age, there may be additional non-compliances on the Bakerloo Line fleet.

3.5.23 The rolling stock has an audible warning of doors closing, but of only 1.75 (+/- 0.25) seconds, whereas the requirement in RVAR is for 3 seconds. LU obtained a time-limited exemption from this requirement for its new Victoria Line fleet in 2008 but will undertake user trials to establish whether a longer warning is possible without impacting on safety (as people rush for their train) and dwell-times at stations (which impacts on frequency). The Department will consider the findings once this research has been completed.

3.5.24 The trains also have front destination displays (yellow on a black background) but the size of the lettering was not compliant with RVAR 98, being 45mm high rather than the minimum of 70mm. It is challenging to fit a compliant display on this size of train because of the crash-worthiness structure located where the displays might be. We have, therefore, amended RVAR so that the text on the front end displays on vehicles of this size may be 35mm high, rather than 70mm, which means that existing displays are acceptable. We also note that all the stations served by these trains have passenger information displays on the platforms themselves, thereby supplying the same information as will be provided on the front of the train.

3.5.25 The audible announcements made at stations give the name of the current station and the final destination, whereas RVAR specifies that the destination and the name of the next station should be given although this was mainly provided for heavy rail services, so that passengers could differentiate between fast and stopping services to the same destination. As most of LU's lines do not have this kind of differentiated service, LU will be undertaking user trials to establish whether both pieces of information are strictly necessary on their lines. The results of this work will inform possible changes to this requirement in the future.

LU - Summary

3.5.26 All of the sub-surface rolling stock and a substantial proportion of the tube stock is planned to be replaced before 2017 and 2020 (see **Table 1**).

Table 1 - Expected position by end date option

		Position by	
Fleets currently in service	**Introduced**	**1 Jan 2017**	**1 Jan 2020**
Bakerloo Line	1972	Refurbished?	Replaced
Central/Waterloo & City Lines	1992	Refurbished?	Refurbished
District/Circle/Metropolitan/ Hammersmith & City	Between 1960 - 1978	Replaced	Replaced
Jubilee Line	1996	Refurbished?	Refurbished
Northern Line	1995	Refurbished?	Refurbished
Piccadilly Line	1973	Replaced	Replaced
Victoria Line	1967	Replaced	Replaced

Note: the use of the term “compliant” above is illustrative only, and is meant to suggest vehicles that were built in compliance with RVAR or have already been refurbished to a very high level of compliance. Equally, the term “refurbished” is used where the Department expects from existing engagement with operators and successes with other fleets to date, that a very high level of compliance will be delivered. The use of “?” infers either uncertainty regarding the future of certain fleets over the time periods involved or that programmes of refurbishment may only be partially completed by the dates in question. Fleet introduction dates are approximate. For greater detail about particular fleets see **paragraphs 3.5.9** to **3.5.25**.

3.5.27 The stock on five tube lines, Central, Waterloo and City, Bakerloo, Northern and Jubilee, may still be in operation at 2017 and 2020. A number of improvements can be made to this stock to give greater compliance with the regulations although the Department recognises that some exemptions may remain necessary.

3.5.28 Costs for the Northern and Jubilee Lines are estimated to be £16.3 million, for the Central and Waterloo & City, £20 million and £6 million for the Bakerloo Line.

Tramways and other light rail

3.5.29 Most of the public tramways in Great Britain use fleets that were built to RVAR 98 requirements, for example, Nottingham Tram, Midland Metro, Manchester Metrolink Phase 2 and Croydon Tramlink. The last three of these fleets have a small number of exemptions, which will be addressed through amendments in RVAR 10 and the application of our “targeted compliance” policy, subject to consultation with DPTAC.

3.5.30 The vehicles in use on the Sheffield Supertram network have undergone a thorough refurbishment that has significantly raised the levels of compliance with RVAR. This includes compliant wheelchair spaces, request stop controls and PIS. Although further discussions will be necessary, including with DPTAC, here again we would expect to address any remaining non-compliances through changes in RVAR 10 and through the application of our “targeted compliance” policy.

3.5.31 We understand that Manchester Metrolink is planning to refurbish their Phase 1 fleet along the lines seen in Sheffield. This was particularly in readiness for the introduction of their new (RVAR-compliant) Phase 3 fleet in 2009. While contractual barriers have prevented Manchester from being able to share costs for this refurbishment with us, the Department estimates that these will be in the order of £3 million.

3.5.32 Two more new fleets of trams are currently being procured. These are for Edinburgh and Blackpool. Naturally, these fleets will comply with RVAR. The Department has recognised that the trams currently in use in Blackpool have a certain heritage appeal, and proposes that, provided the year-round public service is operated using Blackpool’s new fleet, the older vehicles should be exempted from RVAR and used on a limited basis during the tourist season. It should be noted that the final decision on whether an exemption is granted remains with Parliament, where sympathy to heritage type operations has been expressed in the past.

3.5.33 The majority of the vehicles on the Docklands Light Railway ("DLR") pre-date RVAR but have recently undergone a thorough refurbishment that has brought them close to full compliance. We intend, therefore, to treat them in the same manner as Sheffield

Supertram. The DLR's newest fleet, introduced in 2008, is already subject to RVAR.

3.5.34 The diminutive size of the tunnels on the Glasgow Subway has always led us to believe that full compliance with RVAR is unlikely. Indeed, this was one of the systems that the Government referred to when arguing for the need to retain the power to grant exemptions past the end date, as otherwise this network would have had to close – to nobody's advantage. Notwithstanding the gauge constraints, Glasgow Subway have already taken steps to improve some aspects of the accessibility of their fleet – including the provision of compliant handholds, contrast and priority seating, and the Department is in discussion with the operator regarding the provision of PIS.

3.5.35 Provision of a wheelchair space will be very challenging which, combined with the fact that none of the network currently has step-free access from the platform to the street, has led Glasgow Subway to begin discussions with local and national disability stakeholders in order to understand what their expectations of the end date are for this system. It is likely that these discussions will inform an exemption application in due course. For the purposes of this IA, we have assumed that all 41 vehicles on Glasgow Subway will receive PIS and contrasting flooring but that none of the trains will receive a wheelchair space. This refurbishment work is estimated to total approximately £1 million.

3.5.36 The trains used on the Nexus (Tyne & Wear) Metro were built between 1978 and 1981 and have already undergone significant refurbishment. In 2008, the Department announced further support for this important system, which will include works to enable the fleet to operate past 2019. As on other older, pre-RVAR fleets, we anticipate allowing a limited number of minor non-compliances with RVAR to remain through our "targeted compliance" policy provided these have no significant impact on the accessibility of the vehicle to disabled passengers.

3.5.37 We understand that work to fit PIS is already programmed for 2009-10, and that other rectification work will be specified as part of this fleet's three-quarter life refurbishment. For the purposes of this IA, we have assumed that all 90 vehicles on the Tyne & Wear Metro will receive PIS, contrasting flooring, step lighting and improved wheelchair spaces. Using costs from similar works on heavy rail, we have

estimated that this refurbishment work will total approximately £1.5 million.

Tramways and other light rail summary

3.5.38 Table 2 summarises the expected position on operational tramways and other light rail systems by the end date.

Table 2 - Expected position by the end date

		Position by	
Fleets currently in service	**Introduced**	**1 Jan 2017**	**1 Jan 2020**
Blackpool	Various	Replaced	Replaced
Croydon Tramlink	2000	Compliant	Compliant
Docklands Light Railway	1992/2008	Compliant	Compliant
Glasgow Subway	1980	Refurbished	Refurbished
Manchester Metrolink (older vehicles)	1992	Refurbished	Refurbished
Manchester Metrolink (newer vehicles)	1999	Compliant	Compliant
Midland Metro	1999	Compliant	Compliant
Nottingham Express Transit	2004	Compliant	Compliant
Tyne & Wear Metro	1978	Refurbished	Refurbished
Sheffield Supertram	1994	Compliant	Compliant

Note: the use of the term “compliant” above is illustrative only, and is meant to suggest vehicles that were built in compliance with RVAR or have already been refurbished to a very high level of compliance. Equally, the term “refurbished” is used where the Department expects from existing engagement with operators and successes with other fleets to date, that a very high level of compliance will be delivered. Fleet introduction dates are approximate.

Prescribed guided modes of transport

3.5.39 A very small number of additional vehicles and systems will be captured by the change in scope of those guided modes that are subject to RVAR and are very much concentrated on people movers at airports. This is generally also the sector that will additionally become subject to RVAR by virtue of the revisions to the DDA 1995 provided for by the DDA 2005 in terms of the removal of the condition limiting

the application of RVAR to those services where separate fares are paid.

3.5.40 The Department has engaged with a number of such operators for several years, with the result that the vehicles in use at Heathrow Terminal 5 and those soon to come into service at Gatwick, were designed and built in compliance with RVAR from the outset. Similarly, we are satisfied that the vehicles linking Birmingham Airport with its local station comply with the requirements of RVAR 10.

3.5.41 Due to their simple layout, we are confident that the vehicles in use at Stansted Airport (which pre-date the introduction of RVAR 98) could be made substantially compliant in time for 2020 if they have not been replaced by then.

Heritage and tourist railways and tramways

3.5.42 The final sector which will be affected by these proposals is heritage and tourist railways and tramways of which there are a considerable number. Due to the nature of the vehicles operated, and the service which they are intended to recreate, it would not be desirable to apply regulations that would significantly affect their design and appearance.

3.5.43 A single order exempting all pre-RVAR vehicles operating on named heritage and tourist railway and tramway networks and also museums, theme parks, cliff and funicular railways and certain other operations that will potentially be caught by RVAR 10 in future has been developed. The Rail Vehicle Accessibility (Networks) Exemption Order 2010 will come into force on the same date as RVAR 10.

3.5.44 However, the sector will be encouraged to improve access features where this is possible without compromising the historic value and interest of particular rail vehicles. Some operators have already made significant modifications to assist disabled people. The West Somerset Railway is particularly noteworthy, with a carriage adapted to carry up to ten wheelchair users and fitted with a powered wheelchair lift. Some other services have also made provision for the carriage of wheelchair users (for example Seaton Tramway and the Welsh Highland Railway).

3.5.45 In recognition of the fact that such vehicles are sometimes used for excursions on other, non-exempt, networks that remain

subject to RVAR such as Blackpool Tramway, a condition has been added to allow them to do so for a maximum of 20 traffic days (3am to 3am) during any calendar year. Should a heritage or tourist operator wish to operate their vehicles past this limit, they will be required to apply for a separate, vehicle-specific, exemption order. The limit ensures that older, non-accessible, rolling stock cannot be used to provide timetabled services on public transport networks and is similar to that in place for older buses and coaches under the Public Service Vehicles Accessibility Regulations 2000[36].

3.5.46 It is likely that heritage and tourist operators will also, in time, wish to place new vehicles of a new design in service on exempted networks. The Department believes that disabled people have a legitimate expectation that such vehicles make some provision for their needs and should, therefore, be subject to the RVAR. However, where it is concluded that it is impossible or inappropriate for these to fully meet the requirements, then vehicle-specific exemption orders can be sought.

[36] S.I. 2000/1970 (as amended). Available from www.opsi.gov.uk/si/si2000/20001970.htm (see Regulation 4(f) for further information).

3.6 Summary of costs

Option 1 – Analysis of impacts: 1 January 2020

Rolling stock type	Estimated costs (£ million)
London Underground	36.3
Tramways and other light rail	5.5
Prescribed guided modes of transport	Negligible
Heritage and tourist railways and tramways	Negligible
Total	**41.8**

Option 2 – Analysis of impacts: 1 January 2017

Rolling stock type	Estimated costs (£ million)
London Underground	42.3
Tramways and other light rail	5.5
Prescribed guided modes of transport	Negligible
Heritage and tourist railways and tramways	Negligible
Total	**47.8**

3.7 Outcome of consultation

3.7.1 Analysis of the responses to consultation indicates that, of those who expressed a preference, the Government's preferred option of setting of the end date at 1 January 2020 received support from a wide range of stakeholders. Some industry stakeholders were still of the opinion that no end date should be set and one disability organisation argued for an earlier date (as did a rail trade union). Due to the broad support for this measure, and for reasons of consistency with provisions already in place for heavy rail vehicles, RVAR 10 therefore sets the end date by which time all light rail vehicles must be accessible at 1 January 2020.

4 Other issues

4.1 Aside from the setting of the end date for rail vehicles subject to RVAR, we do not believe that the other provisions of RVAR 10 will impose any significant additional costs to the public, private or third sectors. However, the expected impacts of the other measures are also discussed in brief below for completeness.

4.1 Refurbishment

4.1.1 As well as the setting of an end date there is also the question of whether and how to regulate the progressive application of RVAR standards to ensure compliance by 1 January 2020. When post-1998 light rail vehicles are refurbished, operators are required to ensure that any alterations made to areas of the vehicle regulated by RVAR are compliant unless an exemption order has been obtained. However, until now there has been no similar requirement for pre-1999 light rail vehicles as they have not been regulated although, in practice, most operators have ensured that refurbishment proposals are compliant with RVAR within the scope of works as far as possible in discussion with the Department. Examples include the DLR's older fleet and Sheffield Supertram.

Options

4.1.2 Three different options for progressively applying RVAR to older, pre-RVAR, light rail vehicles were considered during consultation in 2003[37]:

Option 1 - Improvements by a given date

4.1.3 To require progressive improvements to pre-1999 vehicles to be made by given dates would make it clear to industry and disabled people what has to be done and by what time. However, there are problems with this approach given that some changes which are relatively straightforward in some types of rolling stock may not be in others. Also, depending on dates chosen, modifications may need to be made outside planned refurbishment times, with consequential effects on costs, downtimes and fleet availability. An overall end date

[37] Consultation on the Government's proposals to amend the rail provisions in Part 5 of the Disability Discrimination Act 1995, DfT, November 2003. Available from www.dft.gov.uk/consultations/archive/2004/arpv.

of 1 January 2020 is not anticipated to have this problem , as those vehicles that are expected to be in service after that date are likely to undergo planned refurbishment work before then.

Option 2 - Improvements at "half-life" refurbishment

4.1.4 Whilst it is clearly sensible for alterations to be made within existing planned refurbishment proposals, it could be difficult to define exactly what constitutes "half-life" refurbishment in legal terms.

Option 3 - "Menu approach"

4.1.5 This option would relate progressive achievement of RVAR standards to the refurbishment being undertaken during scheduled maintenance programmes. Thus, if vehicles were being repainted it would be a requirement that external doors should be colour contrasted; if seats were being replaced, the requirement would be for provision of priority seats, wheelchair space, compliant seat back handholds, etc. There would be no threshold where additional RVAR compliance work outside the scope of the original refurbishment would be triggered.

4.1.6 This approach gives the greatest control to light rail vehicle owners and operators. It also mirrors the regime that franchised heavy rail operators were subject to prior to the introduction of the PRM TSI via the Train and Station Services for Disabled Passengers - Code of Practice[38].

4.1.7 Following the 2003 consultation, it was concluded that the "menu approach" offered the best compromise between increasing accessibility for disabled people and potential costs to the industry. Those costs were assessed as low, with many of the requirements having no additional costs if undertaken during half-life refurbishment, and were entirely within the operator's control.

4.1.8 However, in mandating accessibility standards for refurbishment in RVAR 10, the Government is mindful that the requirements should not act as a disincentive to undertake refurbishment and that any additional facilities that increase the accessibility of rail vehicles to disabled people are better than none. Nothing in the responses to the 2003 consultation suggested that the menu approach should not be

[38] Available from www.dft.gov.uk/transportforyou/access/rail/railstations/accessiblestationdesigns.

applied and the expected costs outlined below are therefore based solely on the pursuit of this option.

Refurbishment - costs

4.1.9 The application of the menu approach to the refurbishment of older light rail vehicles will greatly improve the ability of disabled people to access these services prior to the end date. Throughout this assessment of costs it has been assumed that any improvements will be made during refurbishment work that is undertaken on light rail vehicles as a matter of course. The light rail industry is already doing this because it reduces costs and downtime.

4.1.10 As noted above, during discussions on the end date, the number of pre-RVAR fleets to which the refurbishment provisions of RVAR 10 will apply is very small. It is our belief that the older DLR fleet and the trams in use in Sheffield are now largely compliant with RVAR, so too will be the older tram fleet in use in Manchester, following the planned refurbishment there. This only leaves LU's four newer fleets, 41 vehicles on Glasgow Subway and 90 vehicles on the Tyne & Wear Metro. We are aware that LU and Glasgow Subway are already looking to complete appropriate works in preparation for 2020 (these are detailed in **Section 3.5**), while the Department has already approved funding to Nexus for a three-quarter life refurbishment of its fleet, to enable it to operate past 2019. As the Department is required by the DDA 1995 to set an end date, which will cause these fleets to be made more accessible, no additional costs (on top of the costs of the end date itself assessed above) will accrue as a result of the implementation of the refurbishment provisions of RVAR 10.

Outcome of consultation

4.1.11 RVAR 10 includes a schedule to prescribe the extent to which accessibility standards will progressively be applied to older rail vehicles when they are refurbished before the end date. This is subject to the overall requirement for vehicles to meet accessibility standards by 1 January 2020. After this date, all works to vehicles which relate to accessibility standards would automatically be subject to those standards. The consultation paper noted the Government's intention to give a six month lead time before refurbishment contracts became subject to these requirements to give the industry certainty of both the standards, and the circumstances, in which these would be applied.

4.1.12 Of those respondents to the consultation who expressed a preference, there was broad stakeholder support for these provisions and the preferred coming into force date. Several industry responses suggested a later date of 31 December 2012 but did not give reasons why an earlier date was not appropriate, whilst some disability organisations felt that no lead time should be given as the proposed standards for refurbishment were made available in the consultation paper which was published in April 2009.

4.1.13 Many stakeholders also questioned what might constitute a "contract" and suggested that, in this sector of the industry, some refurbishment projects were done in-house without a specific contract being signed (although contracts were routinely signed with component suppliers, etc). Adjustments have been made to RVAR 10 in recognition of this point to give a similar lead in time to in-house work as is given to work which is contracted out.

4.2 Enforcement

4.2.1 The introduction of the PRM TSI and the subsequent removal of heavy rail vehicles from the scope of the RVAR regime, has prompted a reappraisal of the introduction of the DDA 2005 provisions for enforcement.

4.2.2 These were revisited and three options were presented for consideration during consultation. These are:

Option 1 – Do nothing

4.2.3 Doing nothing would perpetuate the current situation whereby enforcement of light rail vehicle accessibility is via the “all or nothing” criminal regime provided for by the DDA 1995 with no authority designed to enforce it . This regime has been widely criticised for being inflexible – by industry since the only sanction for any non-compliance identified is prosecution – and by disabled passengers for lack of a designated enforcement authority empowered to secure compliance. The "do nothing" approach would also leave light rail vehicle accessibility enforcement under a different, less effective, regime than heavy rail vehicles (under the PRM TSI) with different sanctions for non-compliance.

4.2.4 The Government is committed to providing comprehensive and enforceable civil rights for disabled people and the lack of an effective enforcement regime for RVAR is incompatible with this.

4.2.5 It is clear that the enforcement regime originally provided in the DDA 1995 does not meet the needs of either the industry or disabled passengers and, for these reasons, we believe that “do nothing” is not a viable option.

Option 2 – DDA 2005 Full implementation

4.2.6 A second option, that of introducing the civil enforcement regime provided for by the DDA 2005 was also considered. However, the subsequent introduction of the PRM TSI and the removal of heavy rail vehicles from the scope of the DDA 1995/RVAR regime meant that doing so would result in significant differences between enforcement on heavy and light rail vehicles.

4.2.7 In addition, this would leave enforcement of accessibility on heavy rail vehicles under the Office of Rail Regulation's ("ORR's") Health and Safety at Work Act ("HSWA") criminal regime and light rail vehicles under a civil regime provided for by DDA 2005. As well as different penalties for non-compliance on essentially the same issues and different procedures, it would also mean a different enforcement body (the Secretary of State) and potential inconsistency in enforcement policy and application of penalties (although we recognise that the enforcement role could be delegated to ORR with its agreement). These differences could potentially be confusing both to industry and to disabled passengers in understanding to whom their complaints should be directed and how these would be investigated and result in inconsistencies in enforcement.

4.2.8 Pursuing the option of full implementation of the DDA 2005 civil enforcement regime for light rail vehicles would result in unacceptable inconsistency between heavy and light rail vehicles. We believe that this is particularly inappropriate given the small numbers of rail operators involved. From a better regulation perspective, we see no value in setting up a new enforcement regime for ten light rail operators when we have the opportunity to use the same enforcement regime as already applies to the 30 or so heavy rail operators.

4.2.9 Making revisions to the DDA 2005 regime to align it more closely to the enforcement of the PRM TSI is not considered to be an option. To do so would require further consultation and new primary legislation to enact. A lack of enforcement for potentially another two to five years whilst a suitable primary legislative vehicle is found is not considered to be consistent with Government policy in this area and has therefore been discounted.

Option 3 – Enforcement by ORR

4.2.10 ORR already has enforcement responsibility for heavy rail vehicle accessibility using its existing HSWA powers. It makes no sense to set up a new regime for the enforcement of accessibility issues just for light rail vehicles.

4.2.11 ORR's regime, while still criminal in nature, allows more discretion than the original enforcement measures provided for by the DDA 1995. It provides for the issue of improvement and prohibition notices from which there is a right of appeal to the Employment Tribunal without needing to activate criminal proceedings. This deals with the industry's concerns about inflexibility and, in this respect, its

provisions are similar to the civil regime proposed by the DDA 2005. It is the Department's view that ORR's proportionate enforcement regime will give operators ample opportunity to rectify non-compliances.

4.2.12 It should be remembered that ORR is already the enforcing authority for health and safety legislation for both heavy and light rail vehicles, and the HSWA enforcement regime under which accessibility on light rail vehicles would be enforced is well understood within the industry.

4.2.13 Consultation on the attractiveness of maintaining a single enforcement regime across both the heavy and light rail sectors was undertaken in 2008[39]. Industry responses supported maintaining a single regime although we recognise that these stakeholders also expressed concerns that criminal penalties could be considered as disproportionate to the potential impact of a non-compliance that might trigger a prosecution. However, as explained above, ORR enforces in a reasonable and proportionate manner and, depending on the severity of the breach, prosecution is likely to be seen as a last resort in cases of persistent wilful and unreasonable non-compliance – no cases of which in the light rail sector have been experienced to date.

4.2.14 Disabled passengers also supported the move to a single regime and, in particular, were keen to ensure that this included a clear and workable passenger complaints procedure. We want disabled people to be confident that RVAR 10 is enforced in a reasonable and proportionate manner which discourages non-compliances from occurring or facilitating their quick rectification once identified. We believe that ORR's enforcement regime will meet these requirements.

4.2.15 Some rail industry representatives have suggested that the prescriptive nature of RVAR does not sit well with the test of reasonableness found in health and safety legislation, and Part 3 of the DDA 1995. However, it was partly to avoid doubt about technical requirements and provide a level of consistency of application across all rail vehicles that RVAR (and indeed the PRM TSI) were drafted in this way. The industry already recognises that ORR applies its existing enforcement powers in a proportionate manner and we are confident that this will continue. It has also been suggested that a tension could arise between health & safety and accessibility requirements. We do not believe this will be an issue given the then safety regulator, the Health & Safety Executive, was fully involved during the drafting of

[39] See www.dft.gov.uk/consultations/closed/railvehicleaccessibility.

RVAR 98 and our current proposals have been developed in conjunction with the current safety regulator, ORR.

4.2.16 Bringing enforcement of accessibility on light rail vehicles within ORR's existing regime would provide consistently of application across both sectors of the industry and is the Government's preferred option.

4.2.17 We expect the resulting regime to be far more responsive than the current measures in place and to incorporate sufficient flexibility to enable ORR to react to the specific instances of any breach. It is envisaged that the ultimate sanction of criminal and financial penalties will ensure that any non-compliances will be rectified within improvement notice periods. We would be surprised if any cases reach the point of prosecution, given the nature of the industry, vehicle procurement and refurbishment contracting, and the light rail sector's history of compliance.

4.2.18 This change is unlikely to involve additional costs on industry. In common with ORR's current approach to enforcement of health and safety issues elsewhere, formal enforcement is only likely to be pursued in cases of 'serial' beaches of RVAR or wilful breaches of the law.

Outcome of consultation

4.2.19 Stakeholders supported the Government's preferred option of enforcement of accessibility on light rail vehicles by ORR under its existing HSWA regime. Responses indicated that a single regime would provide clarity, consistency and simplicity across the industry and be beneficial to both industry and passengers. Many industry respondents indicated that they were used to the regime for health and safety issues and were content that ORR's policies were proportionate and reasonable.

4.2.20 A small number of industry stakeholders argued for the retention of the DDA 2005 proposals (particularly because these were civil rather than criminal). While the Government recognises this point, this option would result in two different regimes for the same issue on different vehicles (light and heavy rail) with a potentially different enforcement body with resulting inconsistencies in enforcement policy and application.

4.2.21 The Government has therefore concluded that enforcement of accessibility on light rail vehicles should be by ORR under its existing HSWA powers and RVAR 10 reflects this approach.

Specific Impact Tests: Checklist

Type of testing undertaken	***Results in Evidence Base?***	***Results annexed?***
Competition Assessment	No	Yes
Small Firms Impact Test	No	Yes
Legal Aid	No	Yes
Sustainable Development	No	Yes
Carbon Assessment	No	Yes
Other Environment	No	Yes
Health Impact Assessment	No	Yes
Race Equality	No	Yes
Disability Equality	Yes	Yes
Gender Equality	No	Yes
Human Rights	No	Yes
Rural Proofing	No	Yes

Competition Assessment

5.1 The proposals will only affect the operators of light rail vehicles and the small number of heritage rail vehicle operators who have introduced new rail vehicles into service since 31 December 1998. It is not considered that they will have any substantial differential impacts on different operators.

5.2 In terms of enforcement, costs will only impact in the form of penalties if light rail vehicle operating companies do not comply. In most cases, the use of ORR's HSWA stepped enforcement regime should mean that breaches of RVAR are rectified before the imposition of penalties becomes necessary.

Small Firms Impact Test

5.3 There is no single definition of a "small firm" but the European Union follows the categorisation that they are typically those with fewer than 50 full-time equivalent employees[40].

5.4 Only heritage operators are likely to be caught by this definition and it is not considered that the proposals have any significant or disproportionate impacts for this sector.

Legal Aid

5.5 It is not considered that the proposals have any implications for legal aid. They have been discussed with the Ministry of Justice who agree with this assessment.

Sustainable Development

5.6 The main issue surrounds light rail vehicles which may need to be scrapped before their scheduled working life is complete. The downstream effects of this procedure would not be altered even though the process would be completed earlier than planned. However, we believe that only very few vehicles will be affected in this manner and a large percentage of the original construction materials,

[40] Commission Recommendation of 6 May 2003 (2003/361/EC) concerning the definition of micro, small and medium-sized enterprises. Available from http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:124:0036:0041:EN:PDF.

including all metals, can be recovered for recycling. The number of vehicles affected has been minimised by setting the end date at 1 January 2020, the latest it can be in accordance with the DDA 1995.

5.7 Moreover, these rail vehicles will be replaced by new ones meeting more stringent EC waste and recycling regulations. In addition, advances in the industry mean they will be easier to refurbish with a concomitant potential extension to their useful economic life. In conforming to RVAR 10, new vehicles will also be open to the widest possible proportion of the population, reducing social exclusion by making travel opportunities more accessible to all.

5.8 The impacts on sustainable development are therefore assessed to be minimal.

Carbon Assessment

5.9 It is not considered that the proposals will impact on any of the six activities (energy, industrial processes, solvents and other product use, agriculture, land-use change/forestry and waste) that have been identified by the Department for Environment, Food and Rural Affairs.

Other Environment

5.10 It is not considered that the proposals will have any significant other impacts on the environment.

Health Impact Assessment

5.11 By making light rail vehicles more accessible, it is considered that the proposals will have a small beneficial impact on health and well being and reduce health inequalities.

Race Equality

5.12 It is not considered that the proposals will have any significant implications for race equality although, in meeting the needs of disabled passengers, it is likely that all passengers will benefit.

Disability Equality

5.13 The proposals are designed explicitly to increase the accessibility of light rail vehicles to disabled passengers and, in setting an end date, will give disabled people certainty about when all light rail vehicles will be accessible to them.

5.14 Whilst not considered directly by this IA, the progressive widening of scope of the RVAR regime to older light rail vehicles introduced into service prior to 1 January 1999, as and when they are refurbished, will further enhance the ability of disabled people to access their services in advance of the end date.

5.15 Similarly, the provision of an effective enforcement regime will ensure that disabled people can be confident that the features installed to make rail vehicles more accessible to them will be available and operable.

Gender Equality

5.16 It is considered that the proposals will have a positive impact on the promotion of gender equality since the technical standards in RVAR 10 will:

- expand the priority for seating to include pregnant women and those travelling with small children (most carers of children are women); and
- increase the accessibility of light rail vehicles for older people, disabled people and their carers (most carers are also women).

Human Rights

5.17 It is considered that the proposals are compatible with the European Convention on Human Rights[41].

Rural Proofing

5.18 It is not considered that the proposals will have any differential impact on rural areas.

[41] For the full text of the Convention see http://conventions.coe.int/treaty/en/Treaties/Html/005.htm.