

EXPLANATORY MEMORANDUM TO
THE M1 MOTORWAY (JUNCTIONS 16 TO 19) (VARIABLE SPEED LIMITS)
REGULATIONS 2016

2016 No. 437

1. Introduction

- 1.1 This explanatory memorandum has been prepared by the Department for Transport and is laid before Parliament by Command of Her Majesty.

2. Purpose of the instrument

- 2.1 These Regulations enable the operation of variable speed limits on the M1 motorway between junctions 16 and 19 (“the M1 Scheme”). Variable speed limits are required as part of the smart motorway upgrade in order to increase capacity and smooth the flow of traffic. This allows for more reliable journey times as well as fewer accidents, less noise and pollution.

3. Matters of special interest to Parliament

Matters of special interest to the Joint Committee on Statutory Instruments

- 3.1 None.

Other matters of interest to the House of Commons

- 3.2 As this instrument is subject to the negative procedure and has not been prayed against, consideration as to whether there are other matters of interest to the House of Commons does not arise at this stage.

4. Legislative Context

- 4.1 These Regulations allow for the operation and enforcement of variable mandatory speed limits in relation to the specified roads set out in the Schedule to the Regulations.
- 4.2 Section 134(2) of the Road Traffic Regulation Act 1984 requires the Secretary of State to consult with representative organisations as he sees fit prior to making regulations under that Act.
- 4.3 The Traffic Signs Regulations and General Directions 2002 (S.I 2002/3113), as amended, enable certain traffic signs to be used to convey information about variable mandatory speed limits on motorways.
- 4.4 In addition, traffic signs authorised by the Secretary of State under section 64 of the Road Traffic Regulation Act 1984 will be placed on or near the specified roads set out in the Schedule to the Regulations to indicate to drivers that vehicles are entering, have entered or are exiting a road covered by the Regulations.
- 4.5 The Motorways Traffic (England and Wales) Regulations 1982 (S.I. 1982/1163), as amended, govern the use of motorways in England and Wales and the provision of emergency refuge areas.

5. Extent and Territorial Application

- 5.1 These Regulations extend to England and Wales.
- 5.2 These Regulations apply to England. Only those sections of motorway specified in the Schedule to these Regulations will be affected, all of which are located in England.

6. European Convention on Human Rights

- 6.1 As the instrument is subject to negative resolution procedure and does not amend primary legislation, no statement is required.

7. Policy background

What is being done and why

- 7.1 Highways England Company Limited (“Highways England”) was set up by Government on 1 April 2015 to operate and improve the strategic road network in England. Highways England’s primary role is to deliver a better service for road users and to support a growing economy.
- 7.2 The M1 Scheme is part of Highways England’s programme to modernise England’s motorways by providing more capacity and better connections. This section of motorway is currently a dual three lane motorway; junctions 16 to 18 were originally opened in 1959, with junction 18 to 19 opening in 1965. The M1 Scheme will upgrade the motorway between junctions 16 and 19 to a smart motorway by utilising the hard shoulder as a permanent running lane and installing technology to manage traffic.
- 7.3 The use of variable mandatory speed limits is essential to operating a smart motorway. Variable mandatory speed limits allow Highways England to adjust the speed limit on a motorway during busy periods. This controls the flow of vehicles and helps to prevent traffic grinding to a halt. It is expected that the smart motorway will:
- reduce congestion;
 - smooth traffic flows;
 - provide more reliable journey times;
 - reduce the severity of accidents; and
 - increase and improve the quality of information to road users.

These benefits have been proven on existing smart motorways on the M25, M42 and M6 junctions 5 to 8.

- 7.4 The M1 motorway is a strategic route for local, regional and international traffic. The 26km section of the M1 between junctions 16 (Northampton) and 19 (M6) is currently carrying traffic in excess of design levels, resulting in congestion and delays to drivers.
- 7.5 The Congestion Reference Flow (CRF) represents the daily flow level at which a road is likely to be congested during weekday peak hours. The CRF for the M1 between junctions 16 and 19 is 97,000 vehicles. The average two-way daily traffic flow in this section exceeds 115,000 vehicles (2013) - 25% greater than the CRF. This means the motorway is congested during the weekday morning and evening peak hours and also at other times when traffic flows are heavy.

8. Consultation outcome

- 8.1 A formal consultation exercise was originally undertaken by the Highways Agency (then an Executive Agency of the Department for Transport) for the M1 Scheme. The 9 week consultation period began on 8th December 2014 and ended on the 30th January 2015. The consultation document was sent to 136 stakeholders including affected representative organisations and individual businesses. Stakeholder groups comprised:
- government and local government bodies;
 - local members of parliament;
 - core responders and legal groups;
 - statutory undertakers;
 - environmental organisations;
 - road user and safety organisations;
 - vehicle recovery operators;
 - business organisations;
 - media organisations; and
 - transport organisations.
- 8.2 Four responses were received in total; one response was from a consultee, the Road Haulage Association, with three from non-affiliated individuals.
- 8.3 A detailed analysis of the outcome, including a full list of consultees has been published on the GOV.UK web site:
<https://www.gov.uk/government/consultations/m1-junction-19-to-junction-16-smart-motorway-variable-speed-limits>.
- 8.4 Comments received from respondents included support for smart motorways in general and support for the introduction of variable mandatory speed limits on this section of motorway.
- 8.5 Concerns raised by the respondents included:
- enforcement of mandatory variable speed limits and intelligent vehicle speed adaption,
 - the conversion of the hard shoulder to a running lane, vehicles stopping in live lanes during off peak periods and the effects of incidents on the motorway network
 - removal of lighting, and
 - commercial vehicle enforcement activity
- 8.6 The consultation showed that whilst stakeholders had concerns about the M1 Scheme design concept, they were generally supportive of variable speed limits the subject of the consultation. Highways England carried out an analysis of all the responses to the consultation and responded in writing to all the issues and concerns raised by respondents. Taking into consideration the demonstrable proven benefits of the M42, M6 junction 5 to 8, and M25 schemes the Department for Transport has decided that variable mandatory speed limits should be implemented on the M1 between junctions 16 and 19.

8.7 The Highways Agency responded to the concerns in writing. A summary of these responses is as follows:

(a) Enforcement of mandatory variable speed limits

The enforcement of variable speed limits is carried out through cameras mounted on gantries. The cameras automatically adjust to match the speed limits displayed on variable message signs and overhead gantry mounted signs. The enforcement procedures have been developed with local police forces and allow sufficient time for drivers to adjust their speed when the variable speed limits displayed are changed.

There are a number of smart motorway schemes including the M25, M6 and M42 which are currently successfully enforcing mandatory speed limits.

(b) The conversion of the hard shoulder to a running lane, vehicles stopping in live lanes during off peak periods and the effects of incidents on the motorway network

The Highways Agency was confident that the M1 Scheme will provide additional capacity and reduce congestion without worsening the overall safety of the motorway. The scheme provides:

- increased compliance by controlling and managing the motorway through the use of overhead mandatory speed limits, driver information, CCTV coverage and enforcement;
- the ability to inform drivers of unexpected conditions (such as incidents) through the latest generation of roadside variable message signs;
- systems to detect the presence of slow moving vehicles and automatically warn approaching drivers of potential for queues ahead;
- the ability to protect any broken down vehicles by using overhead signs to warn drivers and close lanes to enable emergency and recovery vehicles safe access to incidents; and
- full CCTV coverage to quickly verify the location of incidents and respond efficiently.

The number, and crucially the severity, of collisions tend to decrease within the controlled environment that a smart motorway creates. In many instances, traffic is able to pass the scene of an incident as the incident itself is less severe and the additional carriageway capacity provides more opportunity for other vehicles to pass the scene. Complete carriageway closures as a consequence of an initial incident are rare, although Highways England recognises the need to plan for such eventualities.

(c) Removal of lighting

The safety objectives for the M1 junctions 16 to 19 scheme are expected to be met without full road lighting. It is specified that replacement lighting should be provided in the vicinity of Watford Gap motorway services and through the M1 junction 19.

Detailed assessments which took into account road geometry and traffic movements have demonstrated that there is no economic case for lighting on the mainline of the M1 between junctions 16 to 19 and public money can be more effectively spent elsewhere to improve safety.

Elsewhere unlit sections of motorways are relatively common, and many do not benefit from the package of smart motorway improvements planned for the M1

junctions 16 to 19 scheme. Just beyond this scheme the M1 is currently unlit south from the Buckinghamshire / Northamptonshire border (between junctions 14 to 15) – a section which is similarly rural and carries comparable traffic levels.

Since February 2011 and the start of works in summer 2014, lighting between junction 16 and Watford Gap motorway services had been switched off between midnight and 5am. Limited data is available relating to this specific intervention, but for the short period of operation the annualised number of accidents in hours of darkness has decreased on this section.

(d) Commercial vehicle enforcement activity

The existing Driver and Vehicle Standards Agency (DVSA) road-side sites will be retained and continue to be available for enforcement use.

9. Guidance

- 9.1 The consultation pack issued by the Highways Agency to stakeholders on 8th December 2014 contained information on the operation of variable mandatory speed limits on the M1 between junctions 16 and 19. This consultation pack was also published on the GOV.UK website. Stakeholders included members of the emergency services, road user groups, local authorities and vehicle recovery operators. Stakeholders will continue to receive updates and news on the scheme implementation, with particular consideration given to the effects of the scheme on local residents, the travelling public and businesses, through Highways England's website, media and press releases.

10. Impact

- 10.1 The impact on business, charities and voluntary bodies is that variable speed limits and all lane running will benefit the motorist by helping to reduce congestion and provide more reliable journey times. It aims to reduce the severity of accidents, increase and improve the quality of driver information and reduce driver stress.
- 10.2 The impact on the public sector is the same as the impact on businesses, charities and voluntary bodies.
- 10.3 No impact assessment is submitted with this explanatory memorandum as no impact on the costs of business or the voluntary sector is foreseen.

11. Regulating small business

- 11.1 The legislation applies to activities that are undertaken by small businesses.
- 11.2 The M1 junctions 16 to 19 scheme will not have an adverse effect on small businesses. The Regulations do not impose any new or increased burden. Highways England will continue to provide targeted information on the scheme to organisations within the surrounding area, including small businesses.

12. Monitoring & review

- 12.1 The operation of this variable mandatory speed limits and all lane running scheme will be monitored and assessed to establish the effectiveness of the scheme on traffic flows, accidents and environmental factors. There will be a Post Opening Project Evaluation of the scheme in one year and 5 years after it has opened. The purpose of the Post Opening Project Evaluation is to measure the business case aims and benefits

of the scheme against what it is actually being delivered one and five years after opening.

13. Contact

- 13.1 Lee Wise at Highways England Telephone: Tel: +44 (0) 121 6788750 or email: Lee.Wise@highwaysengland.co.uk can answer any queries regarding the instrument.