FORS PROFESSIONAL
TRAINING, INFORMATION, KNOWLEDGE

ANTI-IDLING AND CONGESTION-CUTTING

MANAGER TOOLKIT

SAFER SMARTER GREENER

Contents

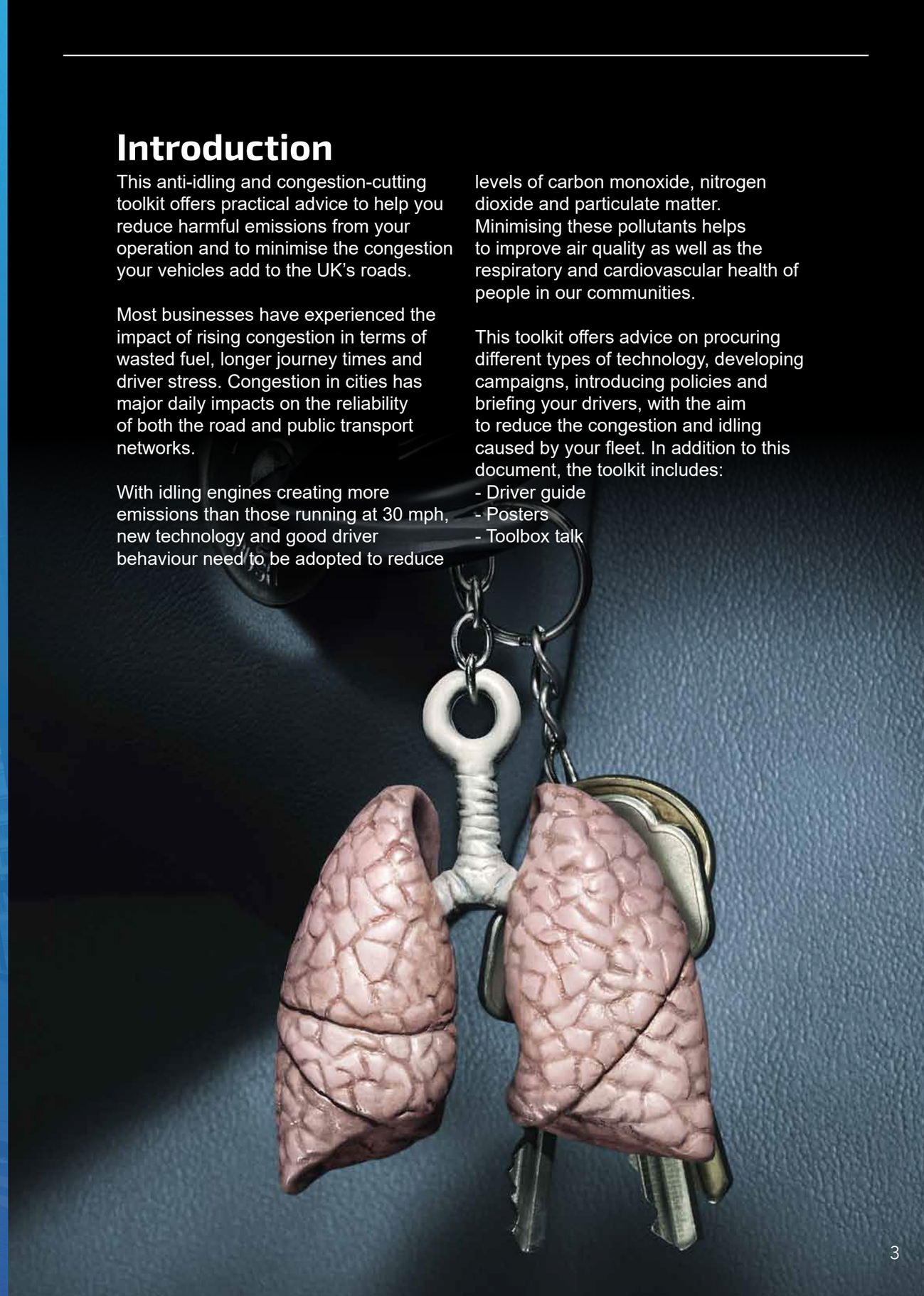
Introduction

This anti-idling and congestion-cutting toolkit offers practical advice to help you reduce harmful emissions from your operation and to minimise the congestion your vehicles add to the UK's roads.

Most businesses have experienced the impact of rising congestion in terms of wasted fuel, longer journey times and driver stress. Congestion in cities has major daily impacts on the reliability of both the road and public transport networks.

With idling engines creating more emissions than those running at 30 mph, new technology and good driver behaviour need to be adopted to reduce levels of carbon monoxide, nitrogen dioxide and particulate matter. Minimising these pollutants helps to improve air quality as well as the respiratory and cardiovascular health of people in our communities.

This toolkit offers advice on procuring different types of technology, developing campaigns, introducing policies and briefing your drivers, with the aim to reduce the congestion and idling caused by your fleet. In addition to this document, the toolkit includes:
- Driver guide
- Posters
- Toolbox talk



Procuring technology

This section is designed to inform you about the technology available to help cut congestion and reduce engine idling, and how to procure it in order to ensure it is both beneficial to your business as well as the environment.

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Congesting-cutting technology – What's available?

This technology aims to reduce the impact of congestion on freight operations, and decrease the likelihood of these operations contributing to congestion in the first place.

Congesting-cutting technology

Sat-navs

There are many recent sat-nav models available aimed at truck drivers. Basic features of truck specific models allow you to enter your vehicle's height, width and weight for safe and accurate route planning, avoiding low bridges and tunnels, and road weight and width restrictions. More advanced sat-navs can plan safe A to B routes if a hazardous load is being carried, and provide live traffic updates to re-route so that congestion is avoided.

Smartphone applications

The last decade has brought about a new generation of sat-nav – the app. Apps now have the benefit of constant updates, keeping drivers informed of congestion on their route, giving them options to re-route, avoiding the congested area, and helping them find a suitable place to stop for a break while congestion clears.

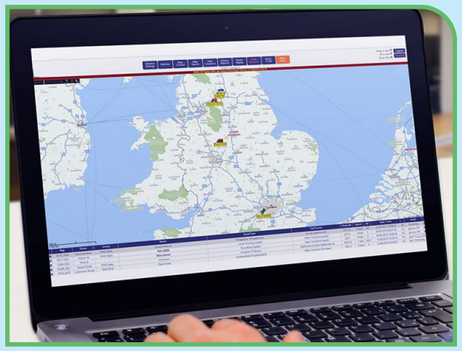
Loading bay management

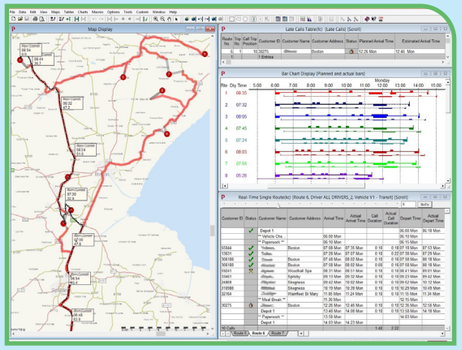
Goods vehicles waiting for loading bays to become free can be a cause of congestion, restricting traffic flow and delaying deliveries. Smartphone apps are available allowing HGV drivers and depot managers to improve the despatch and delivery of goods via a personal digital assistant (PDA) device. The software allocates a time frame to each HGV in which the freight must be unloaded or collected.

Congesting-cutting technology continued

Tracking systems

A tracking system uses global positioning unit (GPS) to enable operators to determine exactly where their fleet is at any given time, without having to contact the driver. Vehicles can be diverted from congested areas and information can be communicated to the rest of the fleet. Tracking systems can also help improve vehicle security by alerting you if a vehicle has been stolen.





Routing systems

Available software can build routes and schedules that reduce fuel consumption, labour hours, and wear and tear on vehicles. Routing systems enable tactical planning, taking into account transportation costs, loading and unloading times, status updates, characteristics and availability of materials and drivers, number of orders and available capacity.

Vehicle and axle weighing systems

Vehicle weighing pads quickly calculate loads for safe transportation, reducing the likelihood of a breakdown, becoming involved in an accident or shedding its load, ultimately becoming a cause of congestion. Using two pads makes it easy to set up an axle weighing system and the portability of many models allows them to be taken from site to site or stored away easily. The cost of fines is often greater than the cost of vehicle weighing pads, making them an important piece of equipment for checking loads. Alternatively, there are often council-run weigh stations that can ensure vehicles are not overloaded.

Anti-idling technology – What's available?

Anti-idling technology is designed to help you to monitor and manage levels of idling in your operation and to prevent drivers from leaving the engine to idle whilst stationary.

Depending on what vehicles your company uses or what systems have been added afterwards, different names and terms might be used for this technology.

Stop/start technology

Manufacturer fitted

Many truck and bus manufacturers are now embedding this technology as standard in all new vehicles. The system switches your engine off when the vehicle is stationary, automatically switching it back on again the moment you want to get going.

Retro-fitted

If your company doesn't have vehicles with this installed by the manufacturer, your vehicles could be retro-fitted, with an aftermarket stop/start system.

Manual stop/start

This device allows the driver to stop and restart the engine at the push of the button. Their response times are quick enough to be used in traffic and they are available for a variety of vehicle and engine types.

Telematics

Telematics equipment is fitted to a vehicle to monitor its location and operational status. Telematics equipment is widely used and available from a number of companies, many of which offer the ability to monitor, and sometimes control, the idle time of your vehicles.

Some telematics systems tap into your vehicle's CANBus data to provide detailed engine information. Other types will involve the installation of an accelerometer to measure movement, speed, and braking performance. Some just simply allow your company to track their vehicles.

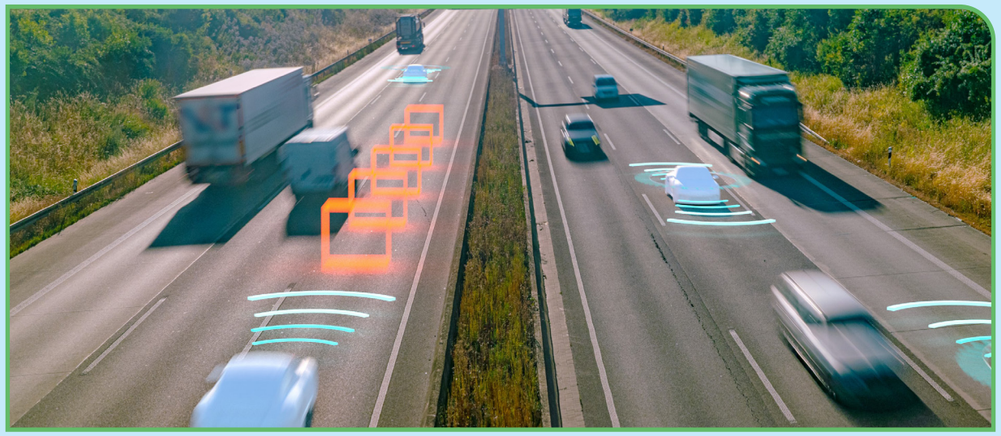
Telematics can calculate your miles per gallon (MPG) automatically and can assist with many aspects of fuel management. Other benefits of telematics beyond helping to reduce idling include monitoring braking, acceleration and time spent in the green band, speed monitoring and efficiency analysis.

Some telematics even provide dashboard mounted displays to provide instantaneous audio-visual corrective prompts.

The future of technology

With continuous advancements in technology, there is a growing demand for data to be transferred. **5G** will no doubt be utilised in the future of telematics to ensure real time information is readily available for fleet operators.

We are now seeing growing numbers of **electric vehicles** (EV) in fleets across the country. These vehicles not only produce zero tailpipe emissions but also eliminate the possibility of engine idling. The future will see more types of commercial EVs on the road as well as **autonomous** HGVs and vans. These vehicles will be designed to avoid congestion at all costs and do so in the most economical way.



Procuring technology

There are a wide range of options to suit all budgets and requirements and different technology may work better in some sectors than others. Many systems are modular so the more functionality you choose, the more expensive the product is – think carefully about what you need and whether you will use all the functionality and data.

There is a growing choice of technology available and the market place is very competitive. It is therefore important to choose the right solution for you and at the right price.

The flow chart opposite shows the key steps you should go through when procuring technology.

- Identify the need
- Select the right system for your operation
- Trial and implement across your fleet
- Monitor, feedback and improve systems and performance

Previous experience shows that technology is often most successful when supported by driver training, league tables and incentives.

You will want to ensure that any investment you make in technology is going to be worthwhile. Trialling equipment on some of your vehicles before rolling it out across the fleet can provide reassurance about its effectiveness and help identify any modifications required.

Make sure you fully brief the driver(s) before the equipment is fitted, outlining the expectations and documenting the feedback. Keep the drivers and other staff informed about the trial, feedback and lessons learnt.

Review your fleet requirements

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Create your business case including payback time

↓

Inform your drivers and workforce

↓

Arrange a trial

↓

Reveal trial performance and findings

↓

Agree schedule and arrange fitting

↓

Train drivers to use new equipment

↓

Monitor performance and feedback regularly

Improve your fleet efficiency, save money and help reduce your emissions: cut out idling when caught in congestion!

Developing an anti-idling campaign

Use the information available in this section to help ensure you follow the correct steps when implementing an anti-idling campaign.

Work your way through the checklist, keeping track of any comments or observations along the way. Once you have completed a task, tick it off and move on to the next.

Tracking tasks in a checklist can help to keep everyone up to date and in the loop, especially if you are asked to report your progress. It will also help you feel confident and in control of a campaign or procurement process, ensuring you cover all bases.

You may wish to add a few of your own tasks to the list, depending on your operation.

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Implementing a campaign

Know how much time your vehicles spend idling:

- If you don't have any telematics installed, then consider installing a telematics system on your fleet
- If you do have existing telematics, then speak to your provider and find out if idling can be added to your existing package
- Some vehicles are required to keep the engine running as part of the operation eg whilst pumping fuel or keeping a cement mixer running. A telematics system may help you distinguish between necessary and unnecessary idling time

Install or activate engine cut-out technology

- You can have this technology fitted by the manufacturer when you procure your vehicle or alternatively you can retro-fit these systems to your existing fleet
- If the majority of your idle time is spent in traffic, it is worth considering stop-start technology
- Use the 'Procuring anti-idling and fuel management technology' checklist to assist decision making

Install in-cab electric heaters to prevent drivers from keeping the engine running to maintain cab temperature during winter periods

Instruct drivers to switch engines off when loading, unloading and waiting in yards, warehouses and delivery points.

Use driver training, challenges and incentives to reduce idling time.

Inform drivers about how much they are idling and how this affects the company. You could do this through:

- Incorporating it into driver meetings/debriefs
- Putting up notices/league tables
- Making use of the driver toolbox talk which accompanies this toolkit

Put up posters in yards to remind drivers to switch their engine off. Make use of the posters included in this toolkit (at the end of this section) by displaying them around your premises.

Implementing a campaign continued

Set drivers tough but achievable challenges to reduce their percentage idling time. To reduce idling by five per cent over the course of a month, for example.

Use driver league tables, and link driver performance to rewards. Introducing healthy competition amongst the drivers can have a large impact:

- League tables can help boost morale but you may wish to consider keeping it anonymous or reporting only the top few achievers to avoid the opposite effect
- Challenge drivers to beat a driver trainer or transport manager

Review and increase targets to drive improvements up and avoid driver complacency.

When implementing your campaign...

- Make sure you appoint a Fuel and Emissions Champion and that their responsibilities include anti-idling. They will be responsible for driving the campaign and keeping track of the results achieved. They should have sufficient authority to ensure that the campaign is successfully implemented
- Brief your drivers and keep them informed. A toolbox talk is available to guide you through an in-depth driver briefing on fuel, emissions and air quality. No more than five minutes may be required and this provides an opportunity for valuable driver feedback and may help improve your existing plans
- Analyse 'before and after' data:
  - Ensure data has been collected prior to any training/briefings to help set a benchmark figure for improvement
  - Collect data for a defined period (eg two weeks) after training/briefing has been given to drivers
  - Analyse the 'before and after' data to determine improvements in fuel usage and the success of your campaign
- Communicate results as an ongoing process, report improvements made over a defined period of time. The Fuel and Emissions Champion should monitor progress and undertake periodic driver briefings to maximise long term benefit

Use the 'Implementing an anti-idling campaign' checklist overleaf to ensure a smooth running campaign

Implementing an anti-idling campaign checklist

	Action	Completed?	Comments
Plan your campaign	Have you got a system in place for measuring fuel use and vehicle mileage?		
	Have you arranged a trial period - measuring fuel consumption for at least two weeks before your campaign and two weeks after?		
	Have you got a system in place to record your data?		
	Have you set a benchmark miles per gallon (MPG) figure and realistic targets?		
Brief your drivers	Have you explained to your drivers what the anti-idling campaign is about?		
	Have you gathered driver feedback and considered the outcomes?		
	Do your drivers know what is expected of them?		
Run the campaign	Have you collected all the data for the trial period since training your drivers?		
	Have you analysed the 'before' and 'after' data to determine improvements in fuel usage and the success of your campaign?		
	Have you advertised the campaign with posters and driver material?		
Communicate the results	Have you presented the results of the campaign back to your drivers?		
	Have you considered rewarding the highest achieving drivers?		
Maintain momentum	Have you got a long-term monitoring system in place going forward?		
	Have you got a schedule of driver briefings?		

Anti-idling campaign poster examples

Anti-idling campaign poster examples continued

Anti-idling campaign poster examples continued

Introducing an anti-idling and congestion-cutting policy

To effectively initiate and maintain an anti-idling culture in the workplace and urge drivers to avoid congestion, you need to write and communicate your company policy on anti-idling and cutting congestion.

Make sure that the policy is supported by procedures and that it outlines the commitment to environmental performance, names the Fuel and Emissions Champion, and covers:

- Compliance to environmental regulations and standards
- Suitability of vehicles and fuel type
- Minimisation of engine idling and fuel spillages
- Collection and monitoring of data across the whole fleet by vehicle and fuel type

You will also need to ensure that it is kept up to date.

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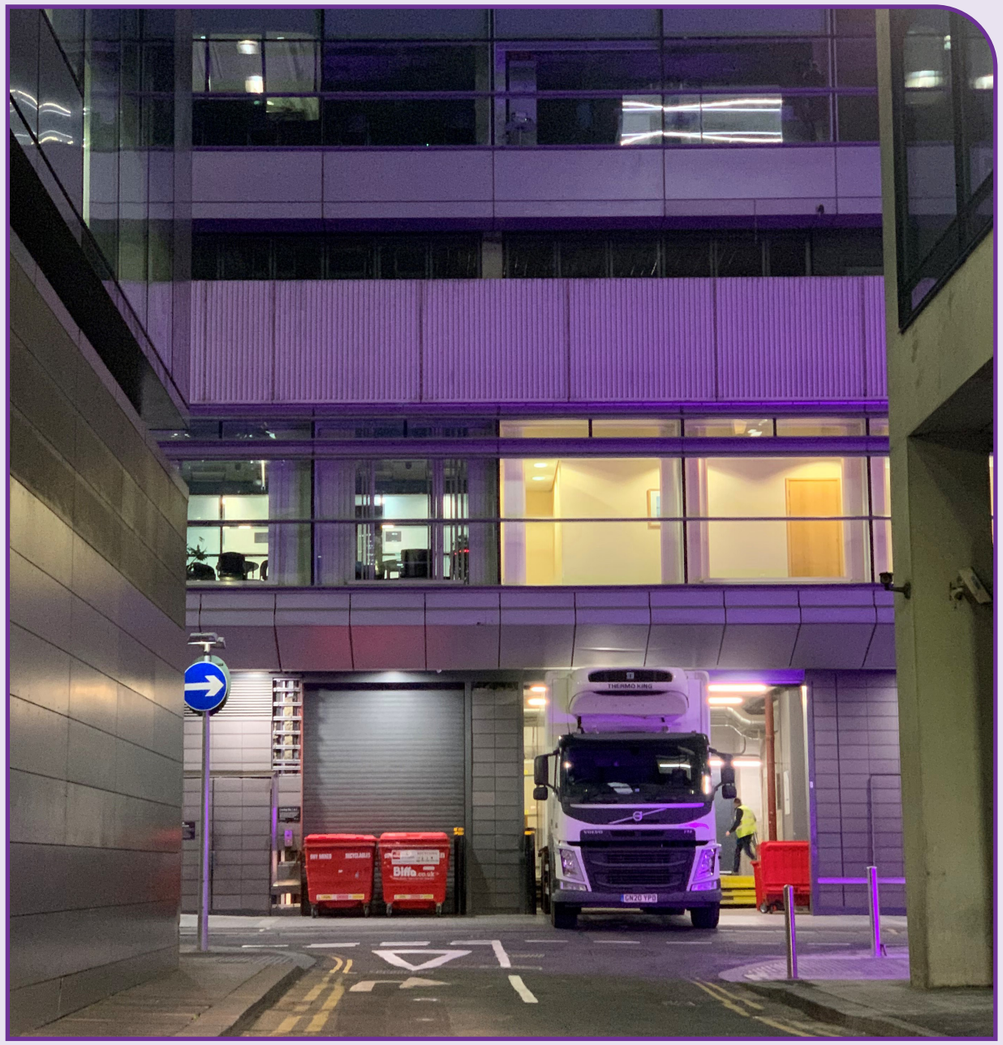
Introducing a policy

As a guide, we have provided examples of useful text you may wish to include in your anti-idling and congestion-cutting policy along with guidelines and points to consider when drafting your policy.

You can use this policy information as the basis for instructions on anti-idling and cutting congestion in your driver handbooks.

Attitudes towards these topics can vary amongst your drivers. Having a clear-cut policy in place and making sure it is communicated effectively makes it easy for your staff to understand your company's position on these issues.



Anti-idling policy

The following general statement is applicable to all and designed to be included in the wider company environmental policy/statement. Some of the points will not be relevant to your organisation or drivers – pick and choose the elements you require to make a policy appropriate to your operation:

In order to minimise vehicle emissions that negatively impact on the environment and health, [COMPANY NAME] is committed to reducing vehicle idling times at depots, in stationary traffic queues and at any other times unnecessary idling takes place. The company actively encourages drivers to reduce levels of idling.

Example driver information to be included in your Driver's Handbook

The following sample policy points are aimed at your drivers and should ideally be used in material such as a driver handbook. Not all points will be relevant to your operation, you may wish to alter or remove specific details:

Engine idling is the running of an engine which is not required for the examination or operation of machinery other than that used for driving the vehicle

Anti-idling measures have been implemented to:

- *Reduce unnecessary vehicle idling*
- *Improve air quality*
- *Protect health*
- *Reduce wasted fuel*
- *Reduce costs*

The Highway Code states that 'you must not leave a parked vehicle unattended with the engine running or leave a vehicle engine running unnecessarily while the vehicle is stationary on a public road'.

- *You are responsible for ensuring your vehicle does not idle unnecessarily*
- *You/your vehicle will be actively monitored and idling time reported by driver/ vehicle*
- *Driver league tables will be produced to report idling improvements and rewards will be given to the drivers making the biggest improvements*

Anti-idling policy continued

- *You are expected to follow these anti-idling rules:*
  - *Do not leave an unattended vehicle's engine running*
  - *Do not leave the engine running during loading and unloading (except where specific machinery requires it)*
  - *Do not leave the engine running in the depot*
  - *Do not leave the engine running when you are parked up, or when you are on a break*
  - *Do not leave the engine running during loading and unloading*
  - *Do not use the engine to warm the cab - use cab heaters provided for cold starts and defrosting*
  - *Turn off your engine if you anticipate being stationary for more than one minute*

- *Your vehicles are fitted with automatic engine cut-off equipment to ensure your idling time is kept to a minimum. Any problems with this equipment should be reported as soon as possible*

- *Any fines incurred for unnecessary idling will be paid by you*

- *Equipment type (eg lorry mounted cranes/pumps/other ancillary equipment) on your vehicle require the engine to be running. On-board equipment will distinguish between genuine and unnecessary idling time*

Additional inclusions for bus/coach only

- *Vehicles will be turned off at bus stands and not restarted until ready to depart*
- *Coaches dropping off/collecting passengers should switch off the engine as soon as the vehicle is parked and not restart the engine until the coach is ready to move off*
- *Turn off the engine during a layover*

Congestion-cutting policy

The sample policy points in this section will help to explain the work being done to reduce congestion. Most of them will be relevant to your operation, but you may wish to alter or remove specific details.

This policy will need to state what your company is doing to minimise congestion and should cover equipment, drivers, routing and communications.

A clear congestion-cutting policy – sample text

[COMPANY NAME] often experiences congestion, particularly at peak times. This can increase journey times, which then affects the ability to meet delivery deadlines, causes stress and leads to increased wear and tear on vehicles. It also has an adverse impact on fuel consumption.

[COMPANY NAME] has therefore invested in [LIST CONGESTION CUTTING EQUIPMENT AND TECHNOLOGY] in an effort to minimise congestion. Further to this, drivers have been trained to use this technology/equipment [DELETE AS APPLICABLE] to help them to avoid congestion where possible.

Routes are planned with congestion avoidance in mind and route planners continue to monitor the efficiency of these plans.

[COMPANY NAME] makes every effort to reduce its impact on congestion and continues to look at new technology and initiatives to support this aim.

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