

ANGLAIS**- GROUPE 14 -**

	<i>Durée</i>	<i>Coefficient</i>
<i>BTS Chimiste</i>	<i>2 heures</i>	<i>1</i>
<i>BTS Techniques physiques pour l'industrie et le laboratoire</i>	<i>2 heures</i>	<i>2</i>

**DICTIONNAIRE BILINGUE AUTORISÉ.
L'USAGE DE LA CALCULATRICE EST INTERDIT.**

*Avant de composer, le candidat s'assurera que le sujet comporte bien
3 pages numérotées de 1/3 à 3/3.*

LVE 5

I - TRADUCTION EN FRANÇAIS

(8 points)

Traduisez de la ligne 1 « *A remote sensing device...* » à la ligne 11 « *... every 0.7 seconds* ».

II - RÉDACTION EN ANGLAIS

(12 points)

Rédigez en anglais la lettre suivante, destinée au « UK Vehicle Inspectorate ».

Vous venez de recevoir une amende pour contrôle anti-pollution positif :

- en vous aidant du texte, vous ferez part de votre indignation et vous donnerez les éléments qui, selon vous, sont à la base de l'erreur,

- vous formulerez enfin une requête auprès des autorités pour qu'elles reviennent sur leur décision.

(170 mots environ)

Sensor snaps polluting vehicles passing by

By Gaia Vince

A remote sensing device that detects excessive emissions from passing vehicles and photographs offenders' licence plates is being tested by the UK government.

However, motoring organisations say the device could lead to motorists being punished for others' dirty fumes.

5 The device consists of a 60-centimetre-square box which projects infrared and ultra-violet rays across the passing traffic at exhaust-pipe height. A mirror on the opposite side of the road then reflects the light back to the sensor.

10 Chemicals and airborne particles from a vehicle's exhaust fumes are detected because they absorb particular wavelengths of the light. The data received is analysed by a roadside computer and, if the emissions exceed limits, a camera is triggered to record the offender's number plate. A vehicle can be recorded every 0.7 seconds.

Currently, vehicles in the UK are checked for emission levels as part of a legally-required annual inspection (MOT). But this is inadequate because it takes place under unnatural conditions - inside a warm garage and with lorries unloaded.

15 Random tests are also performed at the roadside but since 80 per cent of traffic pollution is caused by just 10 per cent of vehicles, this can be an inefficient technique.

The new device will operate on roads with a slight incline, in order to test vehicles while their engines are not coasting. The pollutants identified include carbon-monoxide and dioxide, hydrocarbons and NO_x.

20 But there are problems. The RAC Foundation, which is broadly in favour of such testing, says that currently there is no way of a driver knowing whether or not they are producing excessive emissions, so a suggested £65 fine is unfair.

25 And Kevin Delaney, Road and Safety Manager at the Foundation points out that if two cars travel in opposite directions in front of the sensor, it will be impossible to tell which is responsible for the fumes using the device. Similar confusion might occur if a car is travelling behind a large truck.

30 Peter Stricker, at the University of Vienna, Austria, helped adapt the US-designed device for the European market, which uses more diesel fuel. He insists that problems of vehicle identification have been resolved, saying the device can be "adjusted" according to the type of vehicle passing by.

Stricker points out its success in Austria and other countries from Taiwan to the US. However, the device has faced opposition in the US, where automobile lobbyists have protested that cars are being unfairly blamed for problem caused by heavy goods vehicles.

35 Vehicle emissions are a pressing issue. On 21 November, a report issued by the British Thoracic Society found that air pollution was a key factor in the increased levels of lung disease.

However the deciding factor may be cost – the devices cost £150,000 each. The UK Vehicle Inspectorate has now conducted a month of testing and will decide soon on whether to implement the sensors.

From : New Scientist Online News, 26 November 01