INTERNATIONAL ASSOCIATION OF YOUNG LAWYERS

Transport and Environment: Vessels, aircrafts, trains and lorries – Equal treatment before the law in view of their environmental impact?

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National Report of United Kingdom

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DESCRIPTION OF THE WORKSHOP

Vessels, aircrafts, trains and lorries – Equal treatment before the law in view of their environmental impact?

The aim of the workshop is to verify whether the four main means of transport, vessels, aircrafts, trains and lorries, are treated reasonably equally before the law in view, inter alia, of their shipping volumes in relation to their emissions, their impact on/danger for the environment by accidents/collisions, the transport of hazardous goods etc., or if there is – for whatever reasons – a regulatory overkill with regard to one or few of the means of transport.

QUESTIONNAIRE

Legislation for Means of Transport regarding Emissions

1. **By which national rules is the normal operation of vessels, aircrafts, trains and lorries with respect to emissions governed?**

Generally

The 2008 ambient air quality directive (2008/50/EC)[1] set legally binding limits for concentrations in outdoor air of major air pollutants that impact public health such as particulate matter (PM_{10} and $PM_{2.5}$) and nitrogen dioxide (NO_2).

The 2008 directive replaced nearly all the previous European Union (EU) air quality legislation and was made law in England through the Air Quality Standards Regulations 2010[2], which also incorporated the 4th air quality daughter directive (2004/107/EC)[3] that sets targets for levels in outdoor air of certain toxic heavy metals and polycyclic aromatic hydrocarbons. Equivalent regulations exist in Scotland, Wales and Northern Ireland.[4]

Part IV of the Environment Act 1995[5], which covers England, Scotland and Wales, and the Environment (Northern Ireland) Order 2002,[6] requires all local authorities in the UK to review and assess air quality in their area. If any standards are being exceeded or are unlikely to be met by the required date, then that area should be designated an Air Quality Management Area (AQMA) and the local authority must draw up and implement an action plan aimed at reducing levels of the pollutant. The Air Quality Strategy for England, Scotland, Wales and Northern Ireland sets out UK air quality standards and objectives for reducing levels of health-threatening pollutants. The National Air Quality Strategy was last updated in 2007.[7]

Local authorities are required to make copies of their reviews and assessments of local air quality available to the public, as well as any orders designating an AQMA, and to consult locally on the action plan. In many areas, transport is likely to be the main contributor to excessive levels of pollution.

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[1] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:152:0001:0044:EN:PDF
[2] http://www.legislation.gov.uk/uksi/2010/1001/contents/made
[3] http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32004L0107
[4] http://uk-air.defra.gov.uk/air-pollution/uk-eu-policy-context
[5] http://www.legislation.gov.uk/ukpga/1995/25/contents
[6] http://www.legislation.gov.uk/nisi/2002/3153/contents/made
[7] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69336/pb12654-air-quality-strategy-vol1-070712.pdf

Some local authorities have adopted specific by-laws to control sources of air pollution and nuisance. These numerous regimes are beyond the scope of this paper but one of the most high profile examples is the London Ultra Low Emissions Zone[8].

Lorries

The Road Vehicles (Construction and Use) Regulations 1988[9] govern the standards to which new motor vehicles must be manufactured, including standards for exhaust emissions.

Further to the above there are European emission regulations for new heavy-duty diesel engines which are commonly referred to as Euro I ... VI. The emission standards apply to all motor road vehicles with a "technically permissible maximum laden mass" over 3,500 kg, equipped with compression ignition engines or positive ignition natural gas (NG) or LPG engines.

Euro VI emission standards were introduced by Regulation 595/2009[10], with technical details specified in the 'comitology' Regulation 582/2011[11]. Regulations are addressed to all member states and are applied in full. They are directly applicable without the need for national legislation[12]. The new emission limits became effective from 2014. The Euro VI standards also introduced *particle number* (PN) emission limits and a number of new testing requirements—including off-cycle and in-use testing.[13] Regulation 595/2009 was then amended emissions by Regulation 582/2011.[14]

Sea Going Vessels

The United Kingdom is a signatory to the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 ("MARPOL"). MARPOL Annex VI sets limits on sulphur oxide (SOx) and nitrogen oxide (NOx) emissions from ship exhausts and prohibits deliberate emissions of ozone depleting substances. It also contains provisions allowing for special SOx Emission Control Areas (SECAs) to be established with more stringent controls on sulphur emissions.

[8] https://tfl.gov.uk/modes/driving/ultra-low-emission-zone
[9] http://www.legislation.gov.uk/uksi/1986/1078/contents/made
[10] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:188:0001:0013:EN:PDF
[11] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:167:0001:0168:en:PDF
[12] http://www.innertemplelibrary.org.uk/news/FAQeu/DifferencesDirectives.htm
[13] https://www.dieselnet.com/standards/eu/hd.php
[14] *"COMMISSION REGULATION (EU) No 582/2011 (Euro VI), date is for new registrations"*.

Since 2007 all of the North Sea (up to the latitude of Bergen, Norway), the Baltic Sea and the English Channel have been a SECA. In these SECAs, the sulphur content of ships is limited to only 1.5 %.[15]

MARPOL Annex VI, Chapter 4[16] also contains regulations on energy efficiency for ships. This Annex made the Energy Efficiency Design Index (EEDI) mandatory for new ships, and the Ship Energy Efficiency Management Plan (SEEMP) mandatory for all ships. The regulations apply to all ships of 400 GRT and above and entered into force on 1 January 2013[17].

The requirements of Annex VI are applicable internationally and thus, according to the UK Maritime and Coastguard Agency, as the UK is a party to these agreements, the UK Port State Control expects UK vessels to comply[18].

The United Kingdom's mode of compliance with MARPOL Annex VI is being driven in part by the requirement to comply with EU law. Directive 2012/33[19] provides the legal framework under which European national air pollution laws are to comply with MARPOL Annex VI.[20] This Directive was implemented into UK law by The Merchant Shipping (Prevention of Air Pollution from Ships) and Motor Fuel (Composition and Content) (Amendment) Regulations 2014[21].

On the 1st January 2010 the EU implemented[22] its requirement that ships burn fuel of 0.1 per cent sulphur content or less when they are within EU ports or within EU inland waterways.[23]

Aircraft

EU Member States are set air quality targets through European legislation (see above).[24] Some of these targets are reflected as UK-wide objectives whilst others are devolved objectives, which means there are separate targets for England, Scotland, Wales and Northern Ireland. A summary of objectives can be found on the UK Air website[25].

Defra (Department for Environment Food and Rural Affairs) is the UK Government department with responsibility for setting national policy on air quality to meet these

[15] http://www.hll-reederei.de/english/corporate/news/archiv/onBoard/artOnBoard1807-01.html
[16] http://www.imo.org/en/Publications/Documents/Supplements%20and%20CDs/English/QB664E_092015.pdf
[17] https://www.gov.uk/government/uploads/system/uploads/ attachment_data/file/282102/mgn462.pdf.
[18] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/441041/MGN_462.pdf
[19] http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32012L0033
[20] http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32012L0033
[21] http://www.legislation.gov.uk/uksi/2014/3076/introduction/made
[22] http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=URISERV%3Al21050
[23] http://www.ukpandi.com/knowledge/industry-developments/marpol-annex-vi-air-pollution/
[24] http://ec.europa.eu/environment/air/quality/legislation/existing_leg.htm
[25] http://uk-air.defra.gov.uk/

targets. At a local level, local authorities are required to assess air quality and if national air quality objectives are not being met then an air quality management area (AQMA) must be declared.

There are no specific air quality targets for the UK aviation industry. Instead, air quality at airports is measured as part of the local authority's duties around air quality, and any issues are then dealt with between the airport and the local authority.[26]

Aircraft engines generally combust fuel efficiently, and jet exhausts have very low smoke emissions. However, pollutant emissions from aircraft at ground level are increasing with aircraft movements. In addition, a large amount of air pollution around airports is also generated by surface traffic.

The main pollutant of concern around airports is nitrogen dioxide (NO2). NO2 is formed by nitrogen oxide (NOx) emissions from surface traffic, aircraft and airport operations. PM2.5 is also of concern since particulate emissions from jet exhausts are almost all in this fine fraction.

NOx in the lower atmosphere contributes to the production of ozone; ozone in the lower atmosphere is a pollutant, and contributes to global warming. Nitrogen oxides from high-altitude supersonic aircraft are thought to damage the stratospheric ozone layer, the protective layer that filters out harmful radiation from the sun.

The International Civil Aviation Organization (ICAO)[27] sets international standards for smoke and certain gaseous pollutants for newly-produced large jet engines; it also restricts the venting of raw fuels. The latest standards came into effect in 2013 and apply to engine types certified after this date. Reductions in emissions from aircraft engines have generally been lower in recent years than in other sectors, where technologies such as selective catalytic reduction and exhaust gas recirculation have been employed. There are also increasing numbers of larger aircraft movements, which have disproportionately higher emissions than smaller aircraft.[28]

As an EU member state, the UK is also covered by the EU Emissions Trading System ("EU ETS")[29]. From 1 January 2012, the EU ETS covers any aircraft operator, whether

[26] http://www.caa.co.uk/Environment/Environmental-information/Information-by-environmental-impact/Aviation-s-impact-on-air-quality/

[27] http://www.icao.int/environmental-protection/pages/aircraft-engine-emissions.aspx

[28] http://www.environmental-protection.org.uk/committees/air-quality/air-pollution-and-transport/aviation-pollution/

[29] http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02003L0087-20140430

EU or foreign-based operating international flights on routes to, from or between EU airports.

There are certain exemptions, including for light aircraft, military flights, flights for government business and test flights.

Various complaints were made by non-EU countries at the inclusion of flights to or from destinations outside the EU into the EU ETS. As a result the EU excluded such flights since 2012 from the EU ETS, pending discussions at international level over the future position of international aviation in the EU ETS. [30]Regulation (EU) No. 421/2014, which amends the scope of the EU ETS Directive for aviation came into force on 30 April 2014.[31]

Trains

Directive 96/68/EC sets out the limits on emissions on non-road mobile machinery (NRMM Directive[32]).

The NRMM Directive covers all moveable plant and machinery which does not operate on roads and uses spark ignition or compression ignition engines. This encompasses everything from construction machinery to canal boats. However, the Directive was not expanded to cover locomotives and railcars until it was amended by Directive 2004/26/EC[33]. In the UK the requirements are transposed into domestic law by way of the Non-Road Mobile Machinery (Emission of Gaseous and Particulate Pollutants) Regulations 1999 (Statutory Instrument No. 1999/1053) (as amended) (NRMM regs[34]). The NRMM Regulations do not apply to aircraft, certain specialist applications - military and recreational craft, road vehicles and ships for intended use at sea and/or Agricultural and tractor engines are excluded from NRMM regulations, as they are covered by separate regulations[35].

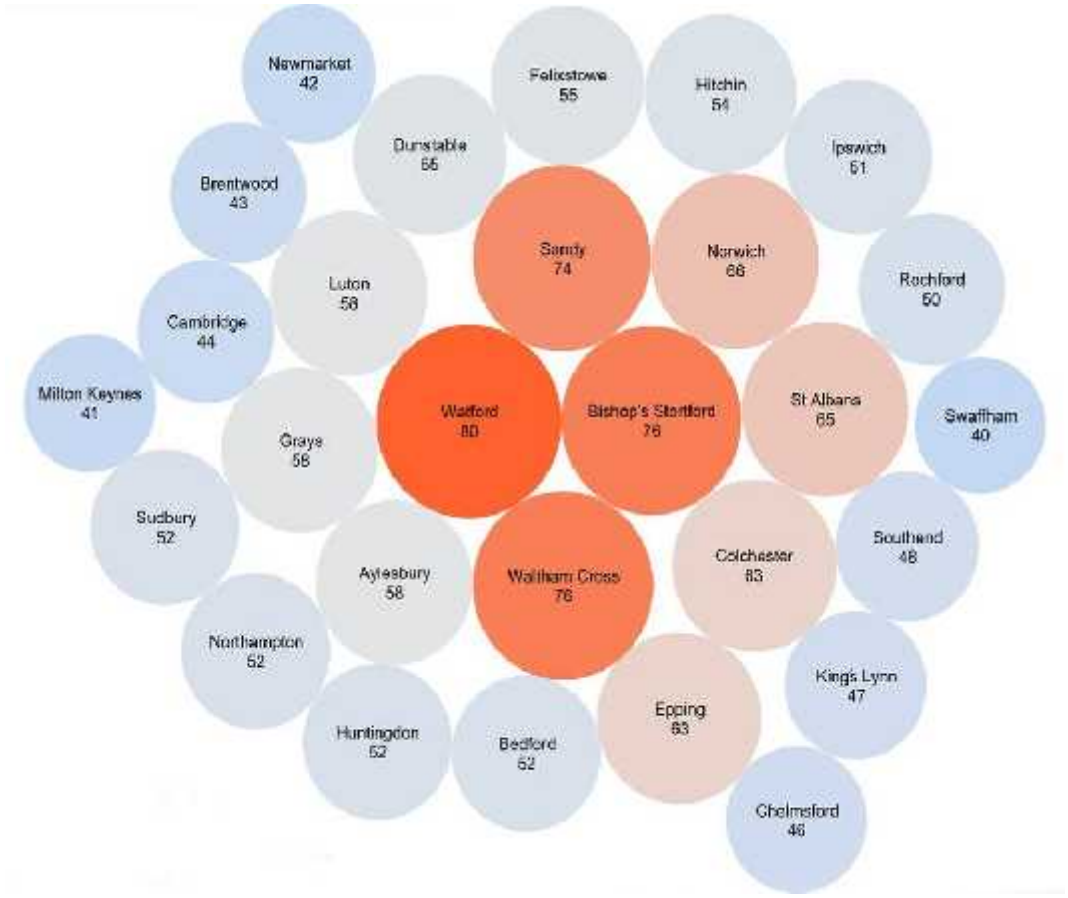
2. Are international and/or European rules (if applicable) fully implemented in your country?

Generally

[30] http://uk.practicallaw.com/6-503-1654?source=relatedcontent#
[31] https://www.gov.uk/guidance/eu-ets-operators-and-activities-affected
[32] **http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1997L0068:20130110:EN:PDF**
[33] OJ L 146, 30.4.2004
[34] **http://www.legislation.gov.uk/all?title=non-road%20mobile%20machinery**
[35] http://www.dft.gov.uk/vca/enforcement/non-road-mobile-mach.asp

UK law allows no more than 40 micrograms of nitrogen dioxide (NO2) per cubic metre of air (µg/m3).

Recently illegally-high levels of nitrogen dioxide were recorded at more than 250 sites in the east of England.



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Alan Andrews, a lawyer with Client Earth, said they had been fighting a legal battle with the government for five years because "levels of air pollution in towns and cities across the UK are above legal levels

He said ClientEarth was now planning High Court action against the government because its plans to deal with the problem were "just not good enough".

[36] http://www.bbc.co.uk/news/uk-england-beds-bucks-herts-35458600

"*Air pollution is one of the biggest public health issues we face as a society*," he said.

"*A plan which thinks it is okay for us to be breathing illegally high levels of pollution until 2020 to us isn't good enough and we're pretty confident judges looking at it will feel the same way."*

A spokeswoman for the Department for Food and Rural Affairs, responded: *"Our plans clearly set out how we will improve the UK's air quality through a new programme of Clean Air Zones, which alongside national action and continued investment in clean technologies will create cleaner, healthier air*[37]"

It is probable that other sites across the United Kingdom regularly exceed the statutory maximum levels for exhaust emissions. It was reported in the Guardian Newspaper that London breached its annual pollution level for 2016 within one week of 2016.[38]

Lorries

Vehicle exhaust testing has been included in the annual mandatory testing regime (commonly referred to as the "MOT test") since 1991. Vehicles which fail the MOT test cannot be used on the road.

The European Union Ambient Air Quality Directive sets maximum permissible levels for roadside concentrations of pollutants thought to be harmful to human health and the environment. The government has stated that it is committed to meeting those standards in as short as time as possible. Achieving the air quality standards for nitrogen dioxide and fine particles presents the greatest challenge, especially in urban areas.

The UK Government has stated that emissions of these air quality pollutants from road vehicles have been reduced by improving the quality of fuels and by setting increasingly stringent emission limits for new vehicles. As an example, it would take 50 new cars to produce the same quantity of air quality pollutant emissions per kilometre as a vehicle made in 1970. Over the last twenty years increasingly stringent emission limits have been set at a European level, starting with the "Euro1" limits in 1993. From September 2015 all new cars currently have to meet the Euro 6 standard. Since 1st January 2011 all models sold have had to meet the Euro 5 standard.[39]

Sea Going Vessels

[37] http://www.bbc.co.uk/news/uk-england-beds-bucks-herts-35458600
[38] http://www.theguardian.com/environment/2016/jan/08/london-takes-just-one-week-to-breach-annual-air-pollution-limits
[39] http://www.dft.gov.uk/vca/fcb/cars-and-air-pollution.asp

The UK is currently implementing Annex VI, Chapter 4, of the International Convention for the Prevention of Pollution from Ships. It has amended the Merchant Shipping Act to allow an Order in Council to be made to bring in regulations, but has not yet promulgated any.

Vessels which re-registered with the UK Ship's register and which are engaged in solely domestic voyages are not currently required to comply with the requirements of the EEDI or the SEEMP. The UK has yet to introduce a regime covering domestic vessels at this time.

Therefore total adherence to MARPOL Annex VI has yet to occur and some legislative framework needs to be brought in.

Aircraft

Further there is stringent noise pollution legislation and regulation which affects trains, roads and airports. This too is beyond the scope of this report but interested parties can follow the link to the UK Government website detailing noise pollution legislation and guidelines.[40]

Trains

The NRMM Directive[41] introduced emission limits in increasingly stringent phases. Upon being brought within the scope of the Directive, locomotives were made subject to Stage IIIA emission limits. Stage IIIB emission limits came into force on 1 January 2012 in place of Stage IIIA. The rail industry expressed concern that the Stage IIIB requirements were too much of a step up from Stage IIIA and presented technical difficulties which could not be solved in the timeframe. As the Association of the European Rail Industry (UNIFE) put it:-

> *At present, no proven solutions are available for stage IIIB. When answering call for tenders, engine manufacturers refuse to make any commitment on reliability or fuel consumption. When they do take the risk of quoting a price it can be twice as much as for a IIIA compliant diesel power package (i.e. about 15 to 20% of the whole locomotive cost). This increase is in itself an indication of the lack of maturity of the technology and may also deter possible locomotive orders.*

UNIFE, 'NRMM Directive – Introduction of Flexibility for Rail Applications' (July 2009)[42]

[40] https://www.gov.uk/noise-pollution-road-train-plane/aircraft-noise
[41] **http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1997L0068:20130110:EN:PDF**
[42] **http://www.unife.org/uploads/090708_UNIFE_on_NRMM_flexibility_-_final(1).pdf**

The rail industry and those governments whose rail sectors are heavily reliant on diesel traction, such as the UK, lobbied hard for the inclusion of flexibility requirements so as to extend the period in which Stage IIIA compliant locomotives could continue to be marketed. The EU Commission eventually agreed and a flexibility scheme was inserted into the NRMM Directive under Annex XIII (transposed into the UK in schedule 9, paras 9-13 of the NRMM regs SI 1999/1053). This enables a limited number of new locomotives to be placed on the market for a period of 3 years after the Stage IIIB requirements came into force; this period expired on 31 December 2014 and there was a rush to place orders for new diesel locomotives before this date.

The flexibility scheme only permits each manufacturer to place 16 new locomotives on the market in the timeframe. The UK managed to negotiate an additional 10 locomotives provided that they are for exclusive use on the UK rail system. Given that channel tunnel freight trains are operated by electric locomotives this presumably means that the operators are prohibited from lending or selling them to continental operators. This concession fell considerably short of what the UK freight sector originally desired. As the report of the European Parliamentary Scrutiny Committee shows, the freight sector argued that each manufacturer would need an allowance of 40 locomotives under the flexibility scheme in order to meet demand: see Parliamentary European Scrutiny Committee, 26th Report (27 April 2011), doc DFT31804 'Emissions from non-road mobile machinery'[43]

3. **Do national rules provide stricter or less strict requirements than international and/or European regulations (if applicable)?**

Across all sectors international legislation, be it IMO treaty or EU legislation, has been more stringent than original domestic legislation. The introduction into domestic UK law of these international obligations has been the driving force in reducing emissions levels from transport.

4. **What are possible consequences if the requirements set forth in the rules are not fulfilled?**

Generally

The UK's Supreme Court has ruled that the government must take immediate action to cut air pollution which was in breach of the levels permitted by law. In a unanimous ruling, a

[43] **http://www.publications.parliament.uk/pa/cm201012/cmselect/cmeuleg/428-xxiv/42813.htm**

panel of five judges, headed by the court's president Lord Neuberger,[44] ordered "that the Government must prepare and consult on new air quality plans for submission to the European Commission... no later than December 31 2015.[45] These plans have been submitted, however their impact and any further enforcement is a matter for the European Commission.

Lorries

Vehicle exhaust testing has been included in the annual mandatory testing regime (commonly referred to as the "MOT test") since 1991. Vehicles which fail the MOT test cannot be used on the road. The Driver and Vehicle Standards Agency (DVSA) carries out roadside tests on heavy goods vehicles and can ban further use of a smoking vehicle until it has been adjusted or repaired. However, only the police have the powers to stop a vehicle on the road if it is producing so much smoke as to be a hazard to other drivers.

Sea Going Vessels

In theory the Maritime and Coastguard Agency could detain sea going Vessels which call at UK Ports if they are in breach of Marpol Annex VI until such time as the non-compliance is rectified. However we have found no examples of such detention.

Aircraft

Other than the general position on air quality outlined above there is no UK wide penalty for air craft breaching emissions levels. However, airports do come under intense pressure to minimize the emissions from airplanes on the ground as well as other plant and machinery used at airports.[46]

Trains

Firstly it is worth noting that the Regulations do not cover locomotives that are already operating. As such older Diesel locomotives will continue to operate for the foreseeable future and there is no obligation to have these retro fitted to comply with the Regulations. There are however various offences under the current Regulations which include placing an engine on the market that does not satisfy the specific Regulation. The maximum penalty for supplying an engine that has not been approved is a fine not exceeding the statutory maximum which in England Wales and Northern Ireland is £5000 and In Scotland is £10,000.[47]

[44] http://www.bailii.org/uk/cases/UKSC/2015/28.html
[45] http://www.bbc.co.uk/news/science-environment-32512152
[46] http://www.heathrow.com/file_source/Company/Static/PDF/Communityandenvironment/air-quality-strategy_LHR.pdf
[47] http://www.burges-salmon.com/practices/environment/publications/engine_emissions_from_nonroad_mobile_machinery.pdf

5. **If you compare the existing rules for the different means of transport, would you say that there are particularly strict rules for certain means of transport?**

Lorries seem to be very heavily regulated (unsurprising given the sheer volume of traffic and the proximity of road transport routes to population).

Next, it appears that trains and sea going vessels are coming under increasing levels of scrutiny in terms of the emissions that they are permitted.

New diesel train locomotives appear to be increasingly heavily regulated. However, the vast majority of locomotives in the UK will not be caught by the current legislation as they were constructed prior to the NRMM Regulation's inception.

Aircraft seem to be a fairly light touch in respect to penalties. Aircraft engines generally combust fuel efficiently, and jet exhausts have very low smoke emissions. There are, however, regimes in place to monitor emissions from airports.

Legislation for Means of Transport regarding Accidents/Collisions (including Hazardous Goods)

1. **Which national rules apply to prevent accidents/collisions and in case an accident/collision happened to prevent and minimize their impact on the environment?**

Lorries

In the United Kingdom all drivers must: have the correct driving licence; be the minimum driving or riding age (different sized vehicles have different minimum ages); and, meet the minimum eyesight rules. There are higher medical and eyesight standards for driving larger vehicles[48] and drivers of such vehicles must pass a specific test. Furthermore, with regards heavy goods vehicle drivers there are stringent driving hours limits[49] contained within Regulation(EC) 561/2006[50] which were introduced on the 11th April 2007.

[48] https://www.gov.uk/legal-obligations-drivers-riders
[49] https://www.gov.uk/government/collections/drivers-hours-rules-and-guidance
[50] http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32006R0561

Essentially this is: Maximum 9 hours driving per day; twice a week this can be extended to a maximum of 10 hours per day; and, no more than 56 hours in one week[51]. There are further rest rules covering fortnight and ferry crossings.

All of these are aimed at keeping the roadways safe and minimize the likelihood of a collision.

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 [52](CDG Regs) and the European agreement ("Accord européen relatif au transport international des marchandises dangereuses par route", known as ADR)[53] which together regulate the carriage of dangerous goods by road are highly prescriptive. The regulations covering England, Wales and Scotland were substantially restructured for 2009 with direct referencing to ADR for the main duties. Amending regulations were made in 2011[54], mainly to reflect changes to the EU Transportable Pressure Equipment Directive. Northern Ireland has equivalent regulations.

Trains

The carriage of dangerous goods by rail is governed by Appendix C of the Convention Covering International Carriage by Rail - International Carriage of Dangerous Goods by Rail. The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (as amended) apply in Great Britain.[55]

Sea Going Vessels

The International Maritime Dangerous Goods (IMDG) code provides guidance on transporting dangerous goods by sea.[56]

The IMDG code is used by operators transporting dangerous goods on journeys involving a sea crossing. This includes ferry services. In the UK, the Merchant Shipping (Dangerous

[51] http://www.truck-driver.co.uk/drivers-hours/
[52] http://www.legislation.gov.uk/uksi/2009/1348/pdfs/uksi_20091348_en.pdf
[53] http://www.unece.org/fr/trans/danger/publi/adr/adr2013/13contentsf.html
[54] http://www.legislation.gov.uk/uksi/2011/1885/contents/made
[55] https://www.gov.uk/guidance/moving-dangerous-goods#regulations-for-transporting-dangerous-goods-by-air-sea-road-and-rail-transport
[56] International Maritime Organization (IMO) website.

Goods and Marine Pollutant) Regulations 1997[57] and the Dangerous Substances in Harbour Areas Regulations 1987 also apply and implement the IMDG code.[58]

Aircraft

The ICAO's Technical Instructions are an internationally agreed set of provisions governing the requirements for transporting dangerous goods by air. The International Air Transport Association (IATA) publishes the Dangerous Goods Regulations in accordance with the ICAO technical instructions[59] .

The Air Navigation Dangerous Goods Regulations 2002 govern the movement of dangerous goods by aircraft [60]

2. **Are international and/or European rules (if applicable) fully implemented in your country?**

Lorries

As a signatory to the European agreement concerning the International Carriage of Dangerous Goods by Road (ADR), and a member state of the EU, the UK is committed to harmonisation of national and international regulations, as far as possible. Therefore, in order to align with the ADR and RID Directives, governing the carriage of dangerous goods by road and rail respectively, a consolidating set of regulations came into force on 10 May 2004.

CDG Regulations now cross-refer almost totally to ADR, and it is ADR that contains the detailed requirements. The regulations do allow certain exemptions that arise from the way the EU Dangerous Goods Directive is worded, and the UK has a number of derogations from that directive.[61]

Aircraft

[57] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/440616/MGN_340.pdf
[58] Maritime and Coastguard Agency (MCA) website.

[59] Civil Aviation Authority (CAA) website.
[60] http://www.legislation.gov.uk/uksi/2002/2786/pdfs/uksi_20022786_en.pdf
[61] http://www.hse.gov.uk/cdg/manual/

The CAA is the agency responsible for matters related to compliance for goods offered to airlines for carriage by air. International codes are implemented by national legislation and there is a good level of compliance.

Sea Going Vessels

The MCA is active in enforcing the legislation and brings prosecutions for non compliance.

Trains

The Office of Rail and Road is the enforcement agency with regards carriage of dangerous goods by rail.[62]

3. **Do national rules provide stricter or less strict requirements than international and/or European regulations (if applicable)?**

Across all sectors international legislation, be it IMDG Code or EU legislation has been more stringent than original domestic legislation. The introduction into domestic UK law of these international obligations has been the driving force in improving safety standards in transporting dangerous goods.

4. **What are possible consequences if the requirements set forth in the rules are not fulfilled?**

Lorries

The HSE, the Office for Nuclear Regulation and the Department for Transport, in conjunction with the police and the DVSA, are the enforcement authorities in respect of compliance with the Carriage of Dangerous Goods and use of Transportable Pressure Equipment Regulations 2009 (as amended) covering road transport in Great Britain. If a carrier is found to be in breach of the relevant regulations then they can be served with a prohibition notice, preventing onward transit until breaches are rectified. Other less serious breaches may simply result in words of advice.[63] The HSE has the power to prosecute non-compliance and defendants may be fined for breaches

Aircraft

[62] http://orr.gov.uk/__data/assets/pdf_file/0014/2093/rgd-2004-07.pdf

[63] http://www.hse.gov.uk/cdg/manual/opstratenforce.htm#incidents

Failure to comply with the regulations may incur an investigation by the CAA which would have consequences for the operators

Sea Going Vessels

The MCA has the power to prosecute ship operators and passengers who contravene the Merchant Shipping (Dangerous Goods & marine Pollutants) Regulations 1997. Those convicted of a breach may be fined.

Trains

The Office of Rail and Road is the enforcement agency with regards carriage of dangerous goods by rail.[64]

5. **If you compare the existing rules for the different means of transport, would you say that there are particularly strict rules for certain means of transport?**

All spheres of transport appear to be heavily regulated. Road Transport appears to bear the brunt of it (given the large volume of traffic) however all types of transport have regimes and enforcement procedures in place.

[64] http://orr.gov.uk/__data/assets/pdf_file/0014/2093/rgd-2004-07.pdf