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Environmental Legislation in vehicle repair

Environment

Vehicle repair shops have introduced many changes into their working habits to bring them into line with the applicable environmental legislation. As a result their general image has improved. This progress is a reflection of the sector's obvious effort to adapt to a scattered range of legal requirements that are pooled together and analysed in this article.

Repair shops have to demonstrate their qualification by applying the best environmental techniques

By **RAQUEL ADANERO BEJERANO.**

What is the environmental impact of a vehicle repair shop? To carry out its repairs the workshop or garage concerned has to take from the environment – directly or indirectly – a series of resources that it then uses and transforms. Finally, the waste products that are no longer useful are discharged back into the environment. Analysing and understanding these activities and their environmental impact makes it easier in turn to understand the whys and wherefores of the legal requirements. (table 1)

Tabla 1. Repercusiones ambientales de la actividad de los talleres.

The environmental aspects are the necessary inputs and the outputs back into the environment. These are the main targets of the environmental legislation due to their interaction with the environment and the potential damage they might cause.

Environmental legislation applicable to the sector

The range of environmental legislation is so large and varied that it is sometimes difficult to decide which actions should be taken to comply with its requirements. The applicable legislation, broken down by the aspects it refers to, may be checked in the websites of the Ministry of Agriculture, Food and the Environment (*Ministerio de Agricultura, Alimentación y Medio Ambiente*) and the regional authorities (*comunidades autónomas*) as well as the requisites incumbent on the sector.

General Obligations. Environmental Permit

Several permits or licences have to be obtained from the local council for running a vehicle repair shop. One of them is the environmental permit. This lays down the compulsory environmental protection measures, depending on the type of activity and the particular firm's production capacity. These measures have to be complied with before going ahead with the activity and then adhered to throughout the whole licence period.

Waste generation and management

Vehicle repair generates a great amount of waste: scrap metal, tyres, paint, used oil, etc. Due to its sheer volume and hazardousness it needs to be dealt with properly.

The Contaminated Soil and Waste Act 22/2011 of 28 July (*Ley de residuos y suelos contaminados*) lays down the obligations to be met by the workshop as initial waste producer or possessor. The workshop can deal with this waste in three basic ways: firstly, in its own right, secondly, by hiring the services of a registered firm or thirdly by handing it over to a public or private waste collection entity. Whichever option is chosen, the workshop is bound to furnish the local environmental authority with proof of the correct management of the non-hazardous commercial waste or opt into any existing public waste management system. The local byelaw indicates how domestic waste is to be handed over.

Normally this involves hiring the services of waste managers and participating voluntarily in integrated management systems (IMS). Before hiring the services of authorised waste transporters and handlers in each *comunidad autónoma*, the workshop has to find out about each one and the waste they deal with. This information can be culled from the environment websites of the *comunidades autónomas*, section: environmental quality. The IMSs also require previous authorisation from the *comunidades autónomas* where they are set up. There are IMSs for handling used oil, end-of-life tyres, containers, batteries and accumulators, lamps, electrical and electronic equipment, etc. The workshop is bound to observe all the conditions and procedures laid down by these systems (table 2).

Table 2. Hazardous workshop waste

- Lamps containing mercury.
- Button fuel cells.
- Windscreen-cleaning fluid.
- Inactivated Airbags.
- Activated carbon of paint spray booths.
- Oil/water separator sludge.
- Aerosols.
- Used oil and vehicle oil filters.
- Batteries.
- Antifreeze.
- Brake fluid.
- Diesel and petrol filters.
- Part-cleaning solvents.
- Time-expired paint products.
- Paint equipment cleaning solvents.
- Air conditioning gas.
- Brake pads containing asbestos.
- Solvent recycling sludge.
- Remains of used paint.
- Paint-impregnated spray-booth filters.
- Paint-impregnated plastic and masking tape.
- Sanding dust.
- Absorbents impregnated with paint oil or other hazardous waste.
- Recipients that have contained waste or hazardous substances.

Administrative procedures of the waste producer

Before going ahead with its activities the workshop has to report its intention to the competent body of its *comunidad autónoma*. This requisite is applicable to all hazardous waste producers and also those producing over 1000 tons a year of non-hazardous waste. This communication will contain the information laid down in annex VIII of Ley 22/2011 and the workshop concerned will then be entered in the «Waste handling and production register» that each *comunidad autónoma* is bound to keep up to date.

Proper waste labelling

THE ENVIRONMENTAL PERMIT LAYS DOWN THE ENVIRONMENTAL PROTECTION MEASURES TO SUIT THE FIRM'S PARTICULAR ACTIVITY AND OUTPUT

Ley 22/2011 cancels the previous obligation of drawing up an annual report of waste generated by the producers of hazardous waste but maintains the obligation of a four-yearly waste-minimisation study, barring those workshops classed as small producers. A workshop is eligible for classification as a small producer of hazardous waste if the annual amount generated does not exceed 10,000 kg. The application for inclusion as such can be made in the «Register of small waste producers».

Management of hazardous waste

Hazardous waste is any residue that might affect human health, the environment or safety. It has to be dealt with according to RD (Royal Decree) 833/88 and RD 952/97, insofar as these royal decrees do not conflict with the provisions of *Ley 22/2011*.

As well as the necessary administrative procedures for hazardous waste producers – barring those classed as small producers – the workshop is bound to furnish a financial guarantee to cover liabilities that might arise from its waste-generating activities.

The owner is bound to separate, label and store the hazardous waste and also to keep all documents that vouch for its proper management.

Waste separation avoids mixtures that might increase their hazardousness or hinder subsequent management. The containers and seals therefore have to be in perfect condition, resistant to the particular contents and not liable to form dangerous combinations therewith. These containers will bear a visible label measuring at least 10 x 10 cm; this label will clearly, legibly and indelibly indicate all the following: the container contents, waste identification code, the nature of the risks posed (pictograms and/or R phrases, set risk phrases specifying the nature of the risks of the chemical substances and hazardous preparations), the packaging date and the name, address and telephone number of the waste owner.

A hazardous waste storage zone has to be set up, observing the maximum storage times. *Ley 22/2011* lays down the following times: six months for hazardous waste (the competent authority of the *comunidades autónomas* will be entitled to amend this time on justified grounds, guaranteeing the protection of human health and the environment); one year for non-hazardous waste that is to be eliminated and two years for non-hazardous waste that is to be reclaimed, i.e. converted into raw materials or energy.

LEY 22/2011 LAYS DOWN THE OBLIGATION OF PRESENTING A HAZARDOUS WASTE MINIMISATION STUDY EVERY FOUR YEARS

These deadlines run from the depositing of the waste in the storage facility. To guarantee environmental safety conditions, even though the legislation does not indicate specific obligations, the hazardous waste storage facility has to be sited outdoors (or, if indoors, in a well-ventilated site well away from any heat sources), with a waterproof floor, protection from rain and fitted with spill retention systems to deal with any accidental container breakage.

For the handling of hazardous waste there is a series of protocols laying down the proper internal control and management procedures; the corresponding documents must be kept for at least five years. These documents record acceptance of each item of hazardous waste, transfer notifications, control and monitoring documents (or hazardous waste delivery notes for small producers) and register of the waste handed over.

Particular legislation in relation to hazardous waste and substances

As well as the general waste law and the development regulations there is a whole range of legislation that might affect vehicle repair shops depending on the substances they handle and the type of waste they produce.

Prevention of air pollution

The vehicle repair activity generates mainly different types of air pollutants: combustion gases from heating boilers, paint spray booths, engines, etc., and emissions deriving from the painting of vehicles and the use of solvents in general, etc.

Ley 34/2007 is the basic law for the prevention of air pollution. It lays down the catalogue of potentially air-polluting activities (CAPCA in Spanish initials), since updated by RD 100/2011, which also establishes the basic provisions for applying the law.

The workshop is bound to check this catalogue to find out which group it belongs to in terms of its polluting potential. The most polluting sites belong to group A, with stricter requisites than for groups B or o C. Section 060102 comprises the activity «renewal of vehicle finishes», together with classification thresholds depending on their solvent consumption capacity (s.c.c). Another activity with s.c.c. is the cleaning of parts in mechanical workshops (table 3).

Table 3. Section of the catalogue of potentially air-polluting activities (RD 100/2011)

Renewal of vehicle finishes	Group	Code
s.c.c > 200 t/year or 150 kg/h	A	06 01 02 01
s.c.c ≤ 200 t/ year or 150 kg/h and > 0.5 t/year	---	06 01 02 03
s.c.c ≤ 0.5 t/year	---	06 01 02 04

Table 4. Section of the catalogue of potentially air-polluting activities (RD 100/2011)

Activity	Group	Code
Burners of RTI >= 300 MWt	A	03 01 01 00
a.s.a.. of RTI < 300 MWt and >= 50 MWt	A	03 01 02 00
a.s.a.. of RTI < 50 MWt and > 20 MWt	B	03 01 03 01
a.s.a.. of RTI <= 20 MWt and > 2.3 MWt(1)	B	03 01 03 02
a.s.a.. of RTI <= 2.3 MWt and >= 70 kWt (1)	C	03 01 03 03
a.s.a.. of RTI. < 70 kWt	-	03 01 03 04
Other furnaces without contact between combustion gases and heated material not specified elsewhere with RTI > 2.3 MWt	B	03 02 05 09
a.s.a.. of RTI <= 2.3 MWt and >70 kWtt	C(2)	03 02 05 10
Drying and granulation equipment or the like, or heating equipment with direct contact with combustion gases, not specified elsewhere, with a rated thermal input => 20 MWt	A	03 03 26 34
RTI => 2.3 MWt and < 20 MWt	B(2)	03 03 26 35
RTI => 70 kWt and < 2.3 MWt	C(2)	03 03 26 36
RTI < 70 kWt	-(2)	03 03 26 37

(2) If hazardous substances are being used or the activity is carried out at less than 500 m from any of the areas listed below, the activities belonging to group B will be considered to form part of group A; those belonging to group C will be considered to form part of group B and the activities without a group will form part of group C on the criterion of the competent body of the comunidad autónoma. The areas concerned are built-up areas; protected nature sites, including peripheral zones with some sort of protection; areas belonging to Red Natura 2000, and areas protected under international instruments. a.s.a: activities specified above

As regards combustion gases, the key criterion is the rated thermal input (RTI) of the burners of the painting booths. If the workshop has heating boilers and other boilers these also have their own coding (section 0301, combustion boilers, gas turbines, engines and others) (table 4).

The *comunidades autónomas* are entitled to establish criteria for potentially polluting activities, changing them to more restrictive groups, depending on the air-quality improvement plans they might put into place.

Obligations of the tenure holders of catalogued activities

The tenure holders of activities are in general bound to minimise emissions by applying available technical improvements.

A VEHICLE REPAIR SHOP IS ELIGIBLE FOR CLASSIFICATION AS A SMALL PRODUCER OF HAZARDOUS WASTE IF IT GENERATES LESS THAN 10,000 KILOGRAMS A YEAR

Workshops catalogued in groups A or B are subject to administrative authorisation by the comunidad autónoma; those of group C are bound to send notification up to the comunidad autónoma in such form and terms as might be laid down by the latter.

The authorisation granted to the facilities of groups A and B establishes the necessary controls and emission limits to be met under current legislation. These authorisations are granted for a maximum term of eight years. For those belonging to group C the competent regional authority might lay down post-notification control requisites to suit each particular case.

Workshop guide for environmental legislation compliance

Initial procedures and general obligations.

- Find out the state of the soil before starting the activity.
- Apply to the council for the environmental permit.
- Selection of the necessary waste handlers (web check) and application for the acceptance documents of each type of waste.
- Reporting the waste production to the environmental body of the *comunidad autonoma* before going ahead with the activity.
- Application for entry in the register of small producers if eligible.
- Furnishing of the financial guarantee covering such liabilities as might arise from its activities, except for those workshops classed as small producers.
- Select a separate place for storing waste, duly separating off the hazardous waste.
- Prepare the hazardous waste store (outdoors or a well-ventilated indoor site, protected from the rain with a spill retention system).
- Fit out the area for the reception and temporary storage of end-of-life vehicles. It will be fitted with impermeable flooring, spill collection facility, oil-water separation plant and water treatment equipment.
- Check the rated thermal input of the burners of paint spray booths.
- Calculate the plant's solvent consumption capacity.
- Check the catalogue of potentially air-polluting activities and ascertain which group the workshop belongs to.
- Apply for the administrative authorisation from the competent body of the *comunidad autonoma* (groups A and B) or make the notification thereto (Group C), according to the group it belongs to.
- Obtain the discharge authorisation from the competent local or regional authority, depending on which runs the collection system, or from the competent hydraulic authority if not discharged into a sludge collection system.
- Draw up a preliminary soil report and send it up to the competent body of the *comunidad autonoma*.

Periodical and Particular Obligations

Waste Management

- Separate waste into independent containers, according to type.
- Label the containers as indicated in the regulations.
- Abide by the waste storage deadlines.
- Hand over the waste to transporters and handlers authorised by the *comunidad autonoma*.
- Record waste deliveries in documents: prior notification of transfer, control and monitoring documents and recording of deliveries made.
- Keep waste management documents available (entry in the small producer register, acceptance documents, transfer notifications, control and monitoring documents, registry of withdrawals).
- Present the waste-minimisation study every four years, except for those classed as small producers.

Elimination and management of equipment containing pyralene

- Annual declaration of equipment included in the PCB phase-out inventory (content of polychlorinated biphenyl, PCB, polychlorinated terphenyls and appliances containing 1 dm3 or more of same.

- Labelling of equipment included in the PCB phase-out inventory and of the doors of the premises if the PCB volume is higher than 5 dm_3.
- Marking of equipment that has been decontaminated and of equipment whose concentration has been reduced by the changes made.
- Obligation of having chemical analyses of PCB-containing or -contaminating equipment conducted by certified bodies and reporting of the results to the competent bodies of the comunidades autonomas. Inclusion of the results in the annual possession document.
- Decontamination or elimination of equipment with a PCB content equal to or higher than 50 parts per million (ppm) and electricity transformers with concentrations higher than 500 ppm. Deadline: 1 January 2011.
- Decontaminate or eliminate, through an authorised handler, equipment containing less than 1 dm_3 of PCB at the end of its useful life.
- Equipment or appliances that might contain PCB and show fluid leaks have to be eliminated or decontaminated as soon as possible and the event reported to the *comunidad autonoma*.

Prevention of soil contamination

- Send up to the competent body of the *comunidad autonoma* such periodical reports as may be asked for.
- Carry out such soil-decontamination activities as may be required by the competent body of the *comunidad autonoma*.

Prevention of air pollution

- Control and monitor emissions as established by the competent body of the *comunidad autonoma* in the authorisation procedure, applicable legislation or air quality plans.
- Keep up to date the activity's air-emission register and maintain it for at least ten years.
- Report recorded information using such methods as may be established.

Handling of vehicle refrigerant gases

- Ensure that persons handling coolant systems with fluorinated refrigerants in vehicles have the necessary personal qualification for doing so.
- Reuse the refrigerant. Recover the R12 in specific bottles and hand it over to the hazardous waste handler; also the R134a as from 31/12/2012.
- Return the containers of these refrigerants to the distributor or hand them over to the authorised hazardous waste handler.
- Check for leaks and repair any that might be detected, before refilling the system with gas.
- As from 01/01/2011 not to top up vehicles with R134 or fit out old vehicles for using same.
- Not to purchase non-rechargeable containers unless manufactured before 04/07/2007.

Noise abatement and prevention of vibration

- Check the noise emission limits laid down in local byelaws.
- Have the required periodical measurements carried out by accredited control bodies.

Wastewater management

- Obtain discharge authorisation and abide by the stipulations laid down therein.
- Observe the requirements of the discharge authorisation and keep it up to date.
- Pay the established discharge fee.
- Comply with such prohibitions as may be established on the discharging of certain substances.
- Measure the quality of discharged water with the required frequency, doing so through a credited control body.

Workshops are therefore bound to conduct such controls as may be laid down in the authorisation or communication of the *comunidad autónoma* and in legislation as well as such requirements as may be phased in by air quality plans approved at the various government levels. RD 100/2011 brings in a new feature here: for facilities with environmental management systems certified externally, by EMAS or ISO 14001, the comunidades autónomas will be entitled to simplify the mechanisms for checking compliance with their obligations.

THE WORKSHOP HAS TO CHECK THE CAPCA TO FIND OUT WHICH

The facilities included in groups A, B and C are bound to keep an up-to-date registry recording the activity's emissions, including the data of each emitting

GROUP IT BELONGS TO IN TERMS OF ITS POLLUTING POTENTIAL

source and the functioning thereof. This information has to be kept for at least ten years and reported to the competent body of the *comunidad autonoma* following the established method for that purpose.

Fluorinated gases and ozone-depleting substances

The corresponding legislation is applicable to workshops and technical personnel that work with vehicle air-conditioning systems with fluorinated gas refrigerants such as R134a or ozone depleting substances like R12; this legislation lays down obligations for the certification of personnel that install, maintain or check these systems; including the control of leaks, recharging and recovery of fluorinated refrigerants and the handling of the gas containers of vehicle air-conditioning systems using fluorinated refrigerant gases.

As a general rule all attempts should be made to reuse the refrigerant unless it contains chlorofluorocarbons, CFCs, such as R12; all contaminated refrigerants that cannot be reused have to be handed over to a registered hazardous waste handler.

Prevention of noise, vibration and odour pollution

The main sources of noise and vibration are compressors, paint spray booths, running engines and working pneumatic tools and also bodywork repair operations. Odour emission stems from the products used.

Local byelaws flesh out the stipulations laid down by the *comunidad autónoma* on applicable noise limits. Applicable limits and monitoring frequency will depend on the location of the workshop and the time of day at which the activity is carried out. In terms of measurements the workshop is bound to hire the services of an accredited control body.

Elimination of wastewater

Water pollution, in a properly fitted-out and operating workshop, stems mainly from vehicle washing and cleansing of the plant and equipment; this produces a small run-off of oil and dirt in general, plus remnants of detergents, etc.

Water legislation is laid down in *Real Decreto* (Royal Decree) 1/2001 of 20 July, approving the revised text of the *Ley de Aguas* (Water Act). This establishes the need of possessing discharge authorisation, applying limits to substances that are hazardous to air quality and establishing the payment of a discharge control fee.

The discharge authorisation comprises discharge control information, information on how it is to be carried out, necessary treatment plant, operation control items, quantitative and qualitative limits on the composition of the discharge and the amount of the discharge control fee. The maximum term is five years, successively renewable thereafter if the quality standards and targets are met at each moment.

When the discharges affect the sewerage network or collection systems run by local or regional authorities (or delegated bodies), the authorisation is granted by the competent local or regional body; otherwise it is the competent hydraulic authority that grants the discharge authorisation.

A chamber needs to be set up for taking water samples. The applicable pollutant limits might be laid down in the discharge authorisation, but the normal reference is the applicable legislation, such as the local byelaws when discharge is made into the sewerage network.

Prevention of soil contamination

Workshop soil contamination might result from accidental spills of substances like oil and other pollutant vehicle fluids; this risk can be avoided by following good working practices.

The soil polluting potential of vehicle repair workshops is dealt with in annex I of Real Decreto 9/2005, dealing with potentially soil polluting activities; this royal decree imposes two main obligations on the activity tenure holders: reporting the state of the soil to the *comunidad autónoma* and decontaminating it if it is declared to be contaminated.

THE WORKSHOP HAS TO CHECK THE CAPCA TO FIND OUT WHICH GROUP IT BELONGS TO IN TERMS OF ITS POLLUTING POTENTIAL

RD 09/2005 establishes the deadline of February 2007 for reporting the preliminary soil condition to the *comunidad autónoma*. Once this initial report has been examined, the tenure holder might be asked for further details, analyses or additional reports to assess the degree of soil contamination. With the coming into force of Ley 22/2011, the tenure holder will be bound to send in periodically to the *comunidad autónoma* the reports containing the base information for the declaration of contaminated soil.

When the soil is declared to be contaminated there is then an obligation to carry out the necessary activities for its environmental recovery and cleansing, in such terms and deadlines as may be dictated by the competent body of the respective *comunidad autónoma*. This obligation falls on the polluters; if there are several, the following will be held

accountable on a several and subsidiary basis in this order: the owners of the contaminated soil and its possessors. The *Real Decreto* also establishes publicity procedures for the soil on which a potentially polluting activity has been carried out and, above all, soil that has actually been polluted. Any definitive closure of the plant or cessation of the activity triggers the soil-quality declaration procedure.

Liability for compliance with environmental legislation

BREACHING THE ENVIRONMENTAL LAW MIGHT LEAD TO CIVIL, PENAL AND ENVIRONMENTAL LIABILITIES

Apart from legal compliance consideration also has to be given to the liability the workshop might incur in if it does not observe the legal precepts. Much of the aforementioned legislation includes information on the established administrative penalties for any breach. The defaulting tenure holder's liability is not limited to these penalties; depending on the damage caused and its consequences, the breach might also give rise to civil, penal and environmental liabilities.

Table 5. Penalties (article 47 of *Ley 22/2011*).

Tipo de infracción	Fine	Other penalties
Slight	Non-hazardous: Up to €900	
	Hazardous: Up to €9000	
Serious	Non-hazardous: 901 to €45,000	Struck off for less than one year
	Hazardous: 9001 to €300,000	Revocation or suspension of the authorisation for up to one year
Very serious	Non-hazardous: €45,001 to 1,750,000	Hazardous: €300,001 to 1,750,000
	Struck off for between one and ten years.	Temporary or definitive closure, total or partial, of the facilities or plant for a maximum term of five years.

Legislation Annex

Waste management legislation

- **Ley 22/2011**, de 28 de julio, de residuos y suelos contaminados.
- **RD 833/88** Reglamento sobre la gestion de residuos peligrosos.
- **RD 952/97**, amending Reglamento 833/88.
- **Orden MAM 304/2002** Lista europea de residuos.

Additional National Waste Legislation

- **RD 679/2006**, de 2 de junio, que regula la gestion de los aceites usados.
- **RD 379/2001**, de 6 de abril, que aprueba el Reglamento de almacenamiento de productos quimicos y sus instrucciones tecnicas complementarias MIE APQ-1, MIE APQ-2, MIE APQ-3, MIE APQ-4, MIE APQ-5, MIE APQ-6 y MIE APQ-7.
- **RD 1383/2002**, de 20 de diciembre, sobre gestion de los vehiculos al final de su vida util.
- **RD 1378/1999**, de 27 de agosto, que establece medidas para la eliminacion y gestion de los policlorobifenilos, policloroterifenilos y los aparatos que los contengan. Modificado por RD 228/2006, de 24 de febrero, que establecen las medidas para su eliminacion y gestion.

Fluorinated gases and ozone-depleting substances

- Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer.
- Real Decreto 795/2010, de 16 de junio, por el que se regula la comercializacion y manipulacion de gases fluorados y equipos basados en los mismos, asi como la certificacion de los profesionales que los utilizan.
- Directive 2006/40/EC of the European Parliament and of the Council of 17 May 2006 relating to emissions from air conditioning systems in motor vehicles.

Legislation on the prevention of air pollution

- Ley 34/2007, de 15 de noviembre, sobre calidad del aire y proteccion de la atmosfera.

- RD 100/2011 Catalogo de actividades potencialmente contaminadoras de la atmosfera.

Noise Abatement Legislation

- Ley 37/2003, de 17 de noviembre, del ruido.
- RD 1513/2005 Evaluacion y gestion del ruido ambiental
- RD 1367/2007 Zonificacion acustica, objetivos de calidad y emisiones acusticas.

Legislation on the discharge of industrial wastewater

- **RDL 1/2001** Ley de aguas
  Discharge aspects: Basic water law.
- RD 849/1986 RDPH RDPH
  Discharge aspects: Develops the water law (old) in terms of discharges.
- **Orden MAM/1873/2004**
  Discharge aspects: Instructions and official forms for declaring discharges and applying for authorisation.

Legislation on the prevention of soil pollution

- **RD 09/2005**, de 14 de enero, por el que se establece la relacion de actividades potencialmente contaminantes del suelo y los criterios y estandares para la declaracion de suelos contaminados.
- **Ley 22/2011**, de 28 de julio, de residuos y suelos contaminados.