

# Drycleaners

## Are you in control?



**Health and safety in drycleaning**

## Introduction

This leaflet highlights ways in which drycleaning businesses may affect people's health and safety and gives advice on how to reduce risks.

The information is useful to all those who work in the drycleaning industry – please make sure everyone gets to see a copy.

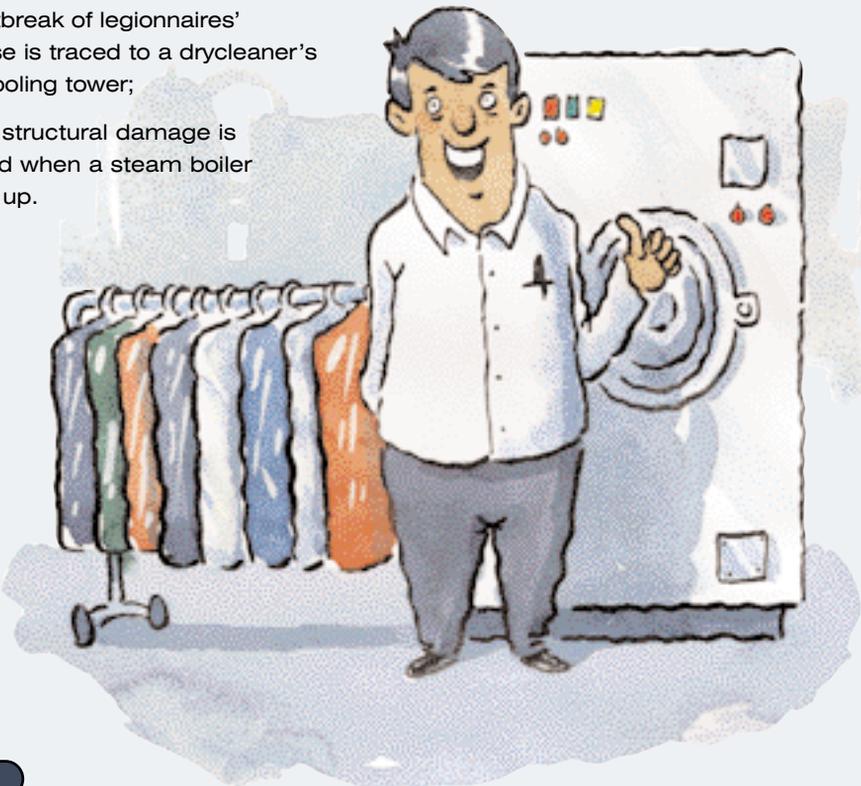
## Drycleaning – a risky business?

Most people don't consider drycleaning to be a dangerous industry. But just consider the following:

- a drycleaner is electrocuted because of faulty electrics;
- an employee is found unconscious having tried to mop up a spill of cleaning solvent;
- customers are hurt when a perchloroethylene (perc) machine explodes during distillation;
- an outbreak of legionnaires' disease is traced to a drycleaner's wet cooling tower;
- major structural damage is caused when a steam boiler blows up.

All nightmare scenarios for the drycleaning industry, and costly in many different ways. But none of them need happen – ***if the drycleaner is in control of health and safety.***

The checklist in this leaflet will help you decide whether health and safety in your workplace is under control or not. But first, let's take a closer look at some of the hazards.



## Hazards in drycleaning

Poor housekeeping leading to **slips, trips and falls** is a hazard common to all industries, but may be a particular problem for a high-street drycleaner who is short of space. Older premises may have **asbestos** in building materials or pipe lagging. **Electrical hazards** are not unique to drycleaners, but the risk may be greater if small businesses try to do electrical work beyond their abilities.

Many cleaners use **steam boilers and other pressure vessels**. In the past, it was quite common for such plant to blow up. Regular thorough examinations of pressure plant and prompt repair of any defects help to ensure that this is a rarity today – but if plant is not examined, the risk of explosion will remain. **Wet cooling towers** also need specialist attention to prevent the spread of bacteria that cause legionnaires' disease.

The most familiar hazard to health in drycleaning is **cleaning solvent**. Breathing in **perchloroethylene (perc)** vapours above set limits may cause headache, fatigue, light-headedness, nausea and other effects. The most important hazards associated with the use of **hydrocarbon solvents** are those of fire and explosion, however these are not covered in this guidance.<sup>1</sup> **Spotting reagents** may cause injury if splashed on the skin or in the eyes.

**Lifting heavy weights** is a common cause of injury. However, injuries to muscles and joints may also arise from **awkward or repetitive**

**movements** carried out over long periods. The work done by pregnant women needs special attention – they are at greater risk from manual handling injury, and they may be more tired during pregnancy.

In a recent study,<sup>2</sup> women who operated drycleaning machines were found to have an increased risk of **miscarriage** compared to women who worked in drycleaning, but not as machine operators, and compared with the general population. The research was not able to show why this might be. It is therefore sensible for drycleaners to control all possible risk to pregnant women, including excessive lifting, bending and standing, and to keep exposure to drycleaning solvents to a minimum.

**None** of these hazards need result in injury or ill health if simple preventive measures are taken.

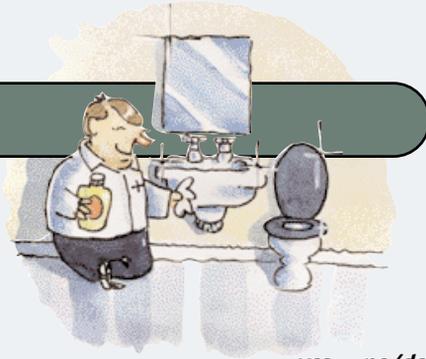
*So, is drycleaning a risky business?*

*It depends on whether the drycleaner is in control...*

Now turn to the checklist to find out more. Tick the appropriate box for all relevant questions.

## The workplace

Good housekeeping helps prevent injuries from slips and trips. Such injuries cost UK employers over £300 million a year in lost production and other costs.



Is the workplace well-organised, with appropriate storage facilities to prevent clutter?

yes no/don't know

Is it kept clean?

Are essential welfare facilities provided?

*Basic requirements for workplaces with employees include suitable, clean toilet facilities; hot or warm water for washing; a supply of drinking water; and first-aid provision.*

## Electricity

Every year about 50 people are killed at work by electric shock. Poor electrical standards also lead to many fires.



Are electrical cables in good condition (eg free from taped joints and damage to insulation) and plugs correctly fitted with a cable grip and appropriate fuse?

yes no/don't know

Has the permanent wiring in the premises been inspected by a qualified electrician within the last 5 years?

*The key to electrical safety is making sure electrical equipment is correctly installed in the first place, and then checking that it stays in a safe condition.*

## Pressure vessels

- Q** Are steam boilers, other pressure vessels and their protective devices thoroughly examined by a competent person periodically (in addition to routine maintenance)?
 
 yes  no/don't know

*The most common reason for HSE to serve an enforcement notice on drycleaners is their failure to produce an up-to-date report of an examination of pressure plant. Steam boiler examinations should be no more than 14 months apart. These may be arranged through your insurer or other competent bodies.*

- Q** Would someone on the premises know what to do if the steam boiler low-water alarm sounds?

*If not – find out!*

- Q** Are all steam and hot water pipes insulated so that people do not burn themselves?

- Q** If the boiler is gas-fired, does it have an adequate flue to prevent carbon monoxide building up in the shop or neighbouring properties?

*The early symptoms of carbon monoxide poisoning include tiredness, drowsiness, headache, pains in the chest and stomach pains.*

## Asbestos

**There is no cure for asbestos-related diseases. Drycleaners are at most risk from asbestos building materials or lagging which are in poor condition or are worked upon without people realising the danger. Find out where asbestos might be in your building.**

- Q** Have the pipe lagging, boiler insulation, ceiling tiles or wall boards in your workplace been checked to see if they contain asbestos?
 
 yes  no/don't know

*Do not dryclean clothes contaminated with asbestos.*

## Activities which may damage muscles and joints

- |   | yes                   | no/don't know         |
|---|-----------------------|-----------------------|
| <input type="radio"/> Have steps been taken to reduce the physical strain on people who have to lift and carry heavy loads (eg by wheeling rather than carrying loads)?                                       | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> Are work areas arranged to avoid people having to adopt awkward postures to do their job?   | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> Where employees are doing highly repetitive tasks, or standing in one position for a long time (eg at some pressing stations) are they allowed to take frequent breaks or rotate tasks? | <input type="radio"/> | <input type="radio"/> |

*The work patterns of employees who are pregnant will need to be reviewed, and may need to be varied at different stages in the pregnancy.*



## Cooling towers

**Between 100 and 200 cases of legionnaires' disease are reported each year in England and Wales. Unless properly treated, cooling towers can provide a breeding ground for the bacterium which causes the disease. Infection is spread by breathing in bacteria in the fine airborne mist from the towers.**

- |   | yes                   | no/don't know         |
|---|-----------------------|-----------------------|
| <input type="radio"/> If a wet-spray type cooling tower is in use, is it registered with the Environmental Health department of the local authority, as required?   | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> Cooling towers should be subject to a programme of water treatment, cleaning, disinfection and routine monitoring. Do you actively manage such a programme, and has it been drawn up by a competent person? | <input type="radio"/> | <input type="radio"/> |

## Solvents - basic rules

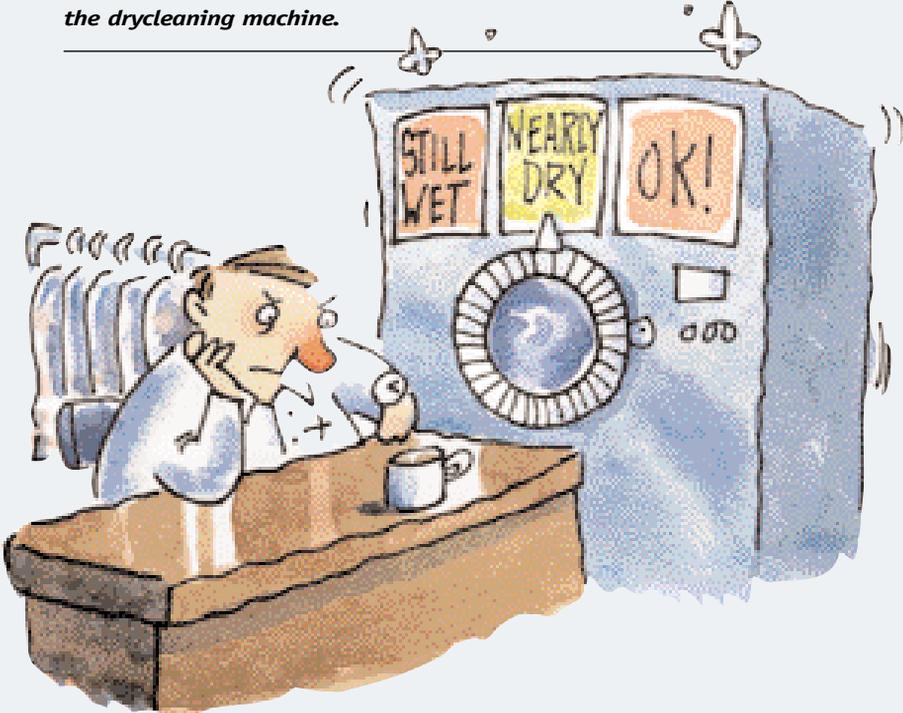
Since perchloroethylene is the major solvent used for drycleaning, the following questions relate to its use.<sup>1</sup>

- |   | yes                   | no/don't know         |
|---|-----------------------|-----------------------|
| <p> Limits are set on the amount of perc vapour anyone should be exposed to during their work. Is monitoring carried out to see whether these limits are exceeded?</p> <p><i>Basic monitoring for perc exposure can be done quite easily in-house. Sampling equipment is available from a variety of sources including some machinery and solvent suppliers. One method involves staff wearing a small sampler attached to their lapel while they carry out their normal work.</i></p> | <input type="radio"/> | <input type="radio"/> |
| <p> Do all staff fully understand the possible effects on their health of breathing in perc vapours at levels above these exposure limits?</p>   | <input type="radio"/> | <input type="radio"/> |
| <p> Are basic rules about solvent safety displayed where everyone can see them?</p> <p><i>'Solvent Precaution Notices' are available from suppliers of solvents or drycleaning machines. You could draw up your own notice using information from the hazard data sheet supplied with the solvent.</i></p>   | <input type="radio"/> | <input type="radio"/> |
| <p> Are the premises provided with adequate <b>mechanical</b> ventilation which takes perc vapours away from operator positions?</p>   | <input type="radio"/> | <input type="radio"/> |
| <p> Do you have a 'No smoking' policy in the working area?</p> <p><i>Smoking in an atmosphere containing solvent is especially harmful to your lungs.</i></p>  | <input type="radio"/> | <input type="radio"/> |
| <p> Is there an emergency procedure to deal with solvent spillage, and does everybody know what it is?</p> <p><i>You never know when a solvent spillage may occur in your premises. Don't wait for it to happen - prepare for it now.</i></p>  | <input type="radio"/> | <input type="radio"/> |
| <p> Are building partitions sound, and are ventilation outlets suitably placed, to stop solvent fumes entering neighbouring premises?</p>  | <input type="radio"/> | <input type="radio"/> |

## Solvents - machine operation and maintenance

- |  | yes                   | no/don't know         |
|--|-----------------------|-----------------------|
| <input type="radio"/> Have people who operate the drycleaning machine been trained in how it works and what to do if problems arise?   | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> Are routine maintenance activities (such as cleaning the button trap or still) done in a systematic way according to recognised safe working practices?    | <input type="radio"/> | <input type="radio"/> |
| <b><i>The machine operation manual should give full details of how to maintain the machine. Always use competent engineers for major repairs and servicing.</i></b>              |                       |                       |
| <input type="radio"/> If the person usually responsible for the operation and routine maintenance of the machine is unavailable, is there a second person trained to do the job? | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> Is the machine checked regularly for solvent leaks?  | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> Are drying cycles set so they are long enough to ensure articles are thoroughly dried?   | <input type="radio"/> | <input type="radio"/> |

***Articles still damp with solvent should not be removed from the drycleaning machine.***



## Spotting chemicals

- |   | yes                   | no/don't know         |
|---|-----------------------|-----------------------|
|  Are people working with spotting solvents trained in their hazards, and safe ways of working with them?                               | <input type="radio"/> | <input type="radio"/> |
|  Is appropriate protective equipment (eg gloves and eye protection) provided and worn?   | <input type="radio"/> | <input type="radio"/> |
|  Is there good general ventilation at the spotting table?  | <input type="radio"/> | <input type="radio"/> |
|  Do the proprietary rust removers you use contain the minimum effective concentration of hydrofluoric acid (at most 6%)?               | <input type="radio"/> | <input type="radio"/> |
| <p><b><i>Do not use concentrated hydrofluoric acid to make up your own reagent – it can cause serious injuries. A free information document on its hazards is available from HSE local offices.<sup>3</sup></i></b></p> |                       |                       |
|  Is the use of flammable spotting solvents strictly controlled?  | <input type="radio"/> | <input type="radio"/> |

***Flammable spotting agents have been implicated in fires and explosions in drycleaning machines. Never add flammable spotting chemicals directly to the machine. Vacuum out the solvent at the spotting table to prevent carry-over into the machine.***



## The law and you

**A lot of what health and safety is all about is common sense. But some specialised knowledge is needed to keep risks to a minimum – and to comply with the law.**

- |   | yes                   | no/don't know         |
|---|-----------------------|-----------------------|
|  Does the business have a reliable way of finding out what the law requires and what health and safety standards are set for your industry (eg through a trade association)?   | <input type="radio"/> | <input type="radio"/> |
|  Do you know the procedures for reporting some accidents and other incidents to the enforcing authority?<br><i>Any accident at work which prevents someone from doing their normal job for more than three days is reportable. The enforcing authority will usually be HSE. A leaflet giving further details of this, and other, rules is available free from HSE.<sup>4</sup></i> | <input type="radio"/> | <input type="radio"/> |
|  If people are employed, is a current certificate of Employers' Liability Insurance displayed, together with a Health and Safety Law Poster? <sup>5</sup>  | <input type="radio"/> | <input type="radio"/> |

## How did you do?

*Add up your scores for 'Yes' and 'No/Don't know'. Ignore questions which are not relevant to you.*

### **'Yes' to all the questions:**

a good indication that you have health and safety under control. But don't forget – this is not a complete checklist for your business. There will be other areas of risk which will need to be assessed and controlled.

### **'No' or 'Don't know' to any questions:**

You need to take further action, or find out more. Look at the 'Further information' section for more advice. If you have answered 'No' or 'Don't know' to several questions, this is an indication that health and safety may not be under control and more action is needed to control risk and meet legal obligations. You may need help to do this – the organisations listed opposite provide advice and training specific to drycleaners. Other organisations offer more general help and advice on health and safety matters.

**Don't wait till an inspector calls – take action now.**

## References

- 1** An Information Document 571/6 *The safe use of hydrocarbon solvents in drycleaning* is available free from HSE offices
- 2** Doyle, Roman and Beral (1997) HSE study to investigate the reproductive toxicity of perchloroethylene *Occupational Medicine Journal* 54, 848-853
- 3** An Information Document 571/8 (revised) *Spotting agents containing hydrofluoric acid* is available free from HSE offices
- 4** *RIDDOR explained: A short guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995* HSE31 (rev1) HSE Books 1999
- 5** *Health and safety law: What you should know* poster HSE Books 1999 ISBN 0 7176 2493 5

## Further information

### Industry Associations providing health and safety guidance

Fabric Care Research Association Ltd,  
Forest House Laboratories,  
Knaresborough Road, Harrogate,  
North Yorkshire HG2 7LZ  
Tel: 01423 885977  
Fax: 01423 880045

Textile Services Association Ltd,  
7 Churchill Court, 58 Station Road,  
North Harrow, Middlesex HA2 7SA  
Tel: 0208 863 7755  
Fax: 0208 861 2115

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**This leaflet contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.**

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