

LAUNDERETTES AND DRY CLEANING **(in coin-operated units)**

(See also: [Machinery Safety\(49\)](#); [Electrical Equipment\(24\)](#); [Risk Assessment\(68\)](#); [COSHH\(19\)](#))

LAUNDERETTES AND DRY CLEANING

INTRODUCTION

In **launderettes**, a high standard of safety is necessary for machines that are intended for use by the public. Serious accidents have occurred when interlocks on machines have failed and users have been able to open the door or lid, and gain access to the revolving cage whilst it has been running at high speed. Such interlock failures can be caused by normal wear and tear, machine abuse and vandalism. Guarding of all dangerous parts, electrical safety and training of employees are all important considerations.

In **coin-operated dry cleaning** units, the use of solvents is the main safety issue, in addition to those outlined above.

LAUNDERETTES

The National Association of the Launderette Industry (NALI) has produced a handbook/guide on safety in coin-operated washing and drying premises. It deals with the following matters:

- (i) structure and maintenance of premises;
- (ii) washing machinery;
- (iii) hydro extractors;
- (iv) tumbler dryers;
- (v) water heaters, boilers and steam generators;
- (vi) other ancillary equipment;
- (vii) safety policy and training.

Some of the particularly relevant points include:

- the need for good ventilation;
- the need for regular maintenance by a competent person;
- a high standard of electrical safety and protection (due to the potential for ingress of water or moisture) including efficient earthing of all equipment;
- adequate and suitable storage space and facilities;
- the need for a good standard of housekeeping/cleanliness.

The main safety issue however is one of machinery safety.

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Machinery Safety

The relevant standards for machinery are:

- (i) **Machine drives and other services:-** Belt and pulley drives and any other dangerous parts at the rear of machines to be protected by fully enclosing guards or panels on each machine. This should be in addition to any system (doors, panels etc.) to prevent public access to the rear of machines.
- (ii) **Hydro extractors:-** To have interlocked lids so that the machine cannot be started until the lid has been closed and the lid cannot be opened until the cage has come to rest.
- (iii) **Front loading washing machines:-** To have interlocked doors operating to same standard as hydro extractors above.
- (iv) **Top loading washing machines:-** To have interlocked lids so that it is not possible to pass the spin cycle unless the lid is shut, and the lid cannot then be opened until the spin motion has ceased and the cage is at rest.
- (v) **Tumbler dryers:-** To have doors interlocked with the motor and the source of heat so that these are cut off when the door is opened to a maximum of 7.5 cms (3") and cannot be energised until the door is shut. Doors to have magnetic or similar catches, which will allow them to be opened from inside or outside.
- (vi) **Interlocks:-**
 - Factors leading to interlock failure include the wet soap environment, rough usage and mistreatment. Precautionary steps should include clear instructions for users, supervision, frequent checks and good maintenance.
 - Safety devices should be subject to an appropriate testing routine by a responsible person and simple records kept. For 'public' machines, this should be daily, wherever practicable.
 - Machines which fail the safety test, and which cannot be rectified immediately, should be taken out of use until repaired and suitable advisory/warning notice(s) displayed.
- (vii) **Information and instructions:-** Clear instructions should be displayed on the safe use of all machines (including references to time delays in operation). Emergency contact details, where appropriate, should also be displayed.

COIN OPERATED DRY CLEANING

The NALI Code No. 2 : Coin operated and self-service dry cleaning installations is a useful document, covering the safety of such premises. It covers:

1. Use of machines
2. Machine design and installation
3. Solvent storage
4. General ventilation
5. Machine maintenance and repair

The following are key points taken from the extensive guidance provided:

Introduction

- Main hazards are related to the use of **solvents**, which have anaesthetic properties and can be harmful.
- Three associated general principles of safety apply:
 - (i) Proper design, installation and maintenance of machinery;
 - (ii) Minimisation of exposure to solvent vapour;
 - (iii) Machine usage and emergency instructions to be available.

As far as is reasonably practicable, an attendant should be provided.

Use of dry cleaning machines

NB Details on most of the following items are contained in the NALI Code No. 2

- Avoid spillages; avoid handling of garments containing solvents; cure leaks; ensure correct functioning of the machine at all times.
- Display notices regarding - precautions regarding solvents
- emergency procedures
- Fire fighting equipment to be provided.
- No naked flames or red hot surfaces.
- Daily machine check.
- Machine operation instructions.
- Procedures for closing down the machine.
- Routine servicing (including the still, button trap and dust/lint filters, cartridge filters, water separator, pressure relief system and refrigerated cooler).
- Procedure for adding solvent.
- Emergency procedures.

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Machine design and installation

- Main principles are to reduce the necessity for manual handling of solvent, minimise solvent losses and to provide sufficient ventilation to ensure the concentration of solvent vapour in any occupied area is well below any Occupational Exposure Limit.
- Design features may include interlocking doors, rotation sensing devices, solvent overflow devices, reversing mechanisms, drying control, service interlocks, machine compartment ventilation and a pressure relief device.

Solvent storage

- Guidance relates to tanks and drums used as storage vessels, tank fittings and associated equipment, solvent delivery and spillage procedures.

General ventilation

Sufficient ventilation is required to the following three areas:

- (i) the machine compartment;
- (ii) the area in the immediate vicinity of the machine loading position;
- (iii) the area around the garment hanging rail.

Machine maintenance and repair

This covers safety in service routines, cleaning, servicing, dismantling, isolation and restarting.

Routine leak detection checks should also be made whilst the machine is in use.

Dry Cleaning with Hydrocarbon Solvents

One of the CFC solvents (CFC113) which is being phased out under the Montreal Protocol is widely used in the dry cleaning industry under various trade names, including Arklone and Dowclene. Machines using flammable hydrocarbons are now being offered as an alternative by a number of suppliers.

A datasheet has been prepared by HSE (HSE Datasheet 571/6) giving advice to those who are contemplating the purchase of machines using hydrocarbon solvents. The datasheet is contained in the HELA Circular LAC 37/1 - Dry Cleaning with hydrocarbon solvents.

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CHECKLIST -
LAUNDERETTES AND DRY CLEANING
(in coin operated units)

**LAUNDERETTES
AND DRY
CLEANING**

- | | | | |
|----|---|-----|----|
| 1. | Are dangerous parts at the rear of machines guarded? | YES | NO |
| 2. | Is public access to the rear of machines prevented? | YES | NO |
| 3. | Are the lids or doors to machines suitably and efficiently interlocked? | YES | NO |
| 4. | Do you have a written machine safety testing routine, followed and recorded by a responsible person? | YES | NO |
| 5. | Do you provide clear information and instructions (including emergency procedures or defect reporting) for customers? | YES | NO |
| 6. | Have you carried out a risk assessment on the use of machinery? | YES | NO |
| 7. | Have you carried out a COSHH assessment on the use of solvents? | YES | NO |
| 8. | Are you aware of the HSE guidance/advice relating to (newer) flammable hydrocarbon solvents? | YES | NO |

REFERENCES/FURTHER DETAILS

- *1. NALI Guidelines Nos. 1 and 2 - Safety in launderettes and self-service dry cleaning establishments - National Association of the Launderette Industry Ltd, 146 Welling Way, Welling, Kent DA16 2RS Tel: 020 8856 9798, Fax: 020 8856 9394.
- *2. HELA - LAC 37/1 - Dry cleaning with hydrocarbon solvents. www.hse.gov.uk/lau/lacs/37-1.htm
- *3. HELA - LAC 43/1 - Safety in launderettes and establishments using similar equipment. www.hse.gov.uk/lau/lacs/43-1.htm
- *4. HELA - LAC 43/2 - Safety in the use of coin-operated dry cleaning machines. www.hse.gov.uk/lau/lacs/43-2.htm

* Available to view by prior arrangement at Nuneaton and Bedworth Borough Council, Environmental Health Services, Council House, Coton Road, Nuneaton. CV11 5AA

** Free copy available from Nuneaton and Bedworth Borough Council at the above address.

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