

Commercial Laundries

Risk Management Note

Fires in commercial (and domestic) laundries are relatively common. Most of these are associated with the dryer. Dryers have all the right ingredients for a fire – heat, fuel and a good supply of air.

Lint accumulation in the dryer and extraction ducting, and reduced airflow, can create conditions that are ideal for combustion to occur.

Spontaneous combustion of oil-impregnated material has also been a cause of several major fires, commonly tea towels, serviettes, tablecloths, and the like.

Note: These precautions refer to existing installations – refer to QBE for advice if a new installation is proposed.

Lint filters

- Never operate the dryer without a lint filter being in place.
- Where practical, clean filters before and after each batch and remove any lint from around the dryer drum. Dispose of the lint well clear of the dryer. As an absolute minimum, filters should be cleaned daily.

Dryer vents

- In general terms, shorter and straighter is best to minimise potential for lint build up.
- Only fully-sealed metal vents should be used – do not use domestic type plastic or foil duct extenders. Spiral wound vents/ducting is especially bad for lint build up.
- The vent should be directed to the exterior of the building. Never into an attic or crawl space, into which a fire in the dryer could be transferred.
- The vent outlet should be directed away from any external combustible storage areas (eg waste bins), which could possibly be set alight.

Attendance

- Dryers should be never left to run unattended.
- Staff should know who is using the dryer and what its contents are.
- Where practicable, the electrical supply to the dryer should be isolated outside of working hours.

Preventative maintenance

Preventative maintenance should be undertaken for all dryers by a competent person (eg an agent of the supplier/installer) and should cover the following checks.

- (a) The temperature probe must be maintained clean and functioning properly. Some models of commercial clothes dryers have a temperature probe inside the drum or a box that controls the upper temperature cut-off switch. When the temperature probe is covered with lint, it acts as an insulator, preventing heat transfer. In this case, the dryer continues to supply heat to the load in the dryer, even to the point of ignition.
- (b) The thermostat control must be maintained, and staff should understand what loads require which heat setting, over what time period.
- (c) Staff should check daily, prior to using the dryers, that air is exhausted through the exhaust. If lint is accumulating on sprinkler heads, heat detectors, or anywhere else, this is an indication of a problem, which needs to be checked by a mechanical contractor. Lint should not be allowed to accumulate on the building exterior (roof, wall or ground).
- (d) Gas-fuelled dryers must have the proper amount of combustion air and this should be verified by a suitably qualified person as part of routine maintenance.
- (e) Maintenance should be fully documented and be undertaken at least annually.

Fuel shut-off valve

- Each gas or oil-fired dryer should be provided with a manually operated, readily accessible fuel shut-off valve, in addition to any automatic devices. Staff should be instructed on its location and operation.
- Ideally, the shut-off valves should be in a location away from the actual dryer so they can still be operated if the dryer itself is involved in a fire.

Operating guidelines

Dryers should only be used by knowledgeable staff who understand and adhere to the following safety measures. In public facilities, suitable signage/notices should be displayed.

- (a) Never dry rubberised material or material which may contain cleaning solvents, such as mop heads or rags (the most common cause of dryer fires).
- (b) Know what time and temperature setting is needed for different materials such as cotton, wool or synthetic, etc.
- (c) Know that preventative maintenance has been undertaken (ie have a posted log) and the equipment is safe. Report any problem to management for repair.
- (d) Know the manufacturer's safety precautions, which should be clearly posted on or immediately adjacent to the dryer.
- (e) When hot, dry material is removed from the dryer, place it in a bin and process it quickly, so heat does not build up in the bin. Do not fold hot garments but store loosely until cool.
- (f) Special care must be taken with items that may have been soiled by any form of oil. Any residual oil left in the item after cleaning can lead to spontaneous heating, combustion and fire. All such items should be stored separately and allowed to cool completely before being folded/packaged.
- (g) Know how to use laundry safety equipment, be aware of the fire plan and practise fire drills regularly.
- (h) Always set cool-down time for at least four (4) minutes.

General dryer area - housekeeping

- Ensure that the area above, below and to the rear of the dryer(s) is kept in a clean and tidy condition by regular vacuum cleaning and clearing of boxes, clothing and other combustibles.

First aid fire appliances

- Provide appropriate fire extinguishers, which should be installed and maintained in accordance with New Zealand Standard: - 4503:2005 - Hand Operated Fire Fighting Equipment.
- Provide staff with training in the scope and efficient use of the appliances provided.



Figure 1 - Gas fired washer and dryer units



Figure 2 - Gas fired dryer unit

Automatic fire detection/protection

- Consider the provision of an automatic heat/smoke detector system (installed and maintained to an appropriate standard ie NZS 4512:2010) or an automatic sprinkler system (installed and maintained to NZS 4541:2013).

Disclaimer

The purpose of this Risk Management Note is to assist you to minimise potential loss from exposures which need prompt consideration. The Note does not imply that all other exposures were under control at the time of inspection.

The options contained in this Note are not intended to be a substitute for appropriate professional advice in relation to any matter. In achieving compliance with these items, fire protection equipment and systems should be installed to comply with the requirements of the relevant local, and/or Government authority. Any equipment installed should also comply with the requirements of the relevant New Zealand Standards and Codes.

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