

Technical Bulletin

July 2018 Issue 2 TB 59

Risk of Fire

Fire is probably the biggest risk to the launderer and cleaner and can be caused by a variety of factors or situations therefore prevention is of major importance. We highlight the risks with this extra technical bulletin this month because of the major fires which have affected businesses in our trade recently and can effectively close you down.

Why are we of a special risk?

The ignition of fluff which collects on pipe work, ledges and unused surfaces can result in the rapid spread of fire. Fluff, which is microscopic textile fibres, should be prevented from accumulating, and in addition to regular removal from the more accessible places, electric motors, heating coils and tumbler ducts, should be regularly cleaned to prevent any build up.

The minute textile fibres comprising such fluff or lint will be particularly prone to spontaneous ignition when impregnated with oil, wax or other greasy residues. In a Laundry the areas under calender/ironer beds and around the operating mechanisms of cabinet garment finishing machines in both laundry and dry cleaning are particular danger points. Pay special attention to good Housekeeping and plant Maintenance in your routines to keep this under control.

Spontaneous combustion is a major risk in our business

Spontaneous combustion, i.e. the condition where flaming occurs in the absence of an ignition source, is caused by the temperature of the textiles rising due to slow oxidation of the textile fabric within the load.

The risk is increased with hot work taken straight from a tumbler dryer or any finishing machine and tightly packed in or onto trolleys or trucks, and residues of oil, grease, wax, soap, rubber or similar materials on the fabric will further increase the danger.

Particular care must be taken with loads containing kitchen cloths, oven cloths, or greasy aprons, from which all the residues resulting from incomplete Saponification/emulsification and removal of the greasy soiling may not be complete.

This also occurs with workwear processing where oily/greasy residues can be liberated in tunnel finishers causing an oily/greasy film to condense onto adjacent surfaces providing, with lint and dust, a very good and widespread fuel source. Areas for attention would include those of Maintenance, plus staff Training and Education. Make all employees aware of the dangers. Wiping and cleaning cloths, by the very nature of their use, pose a major risk and should be treated accordingly.

When undertaking work for rest homes or from domestic laundry cotton underpants with elasticated waist bands, particularly when degraded due to wear, are especially prone to spontaneous combustion if overheated.

Tumbler dried work has been a major cause of fires

Tumbler dried work has been a major cause of fires due to spontaneous combustion and special attention should be paid to your operating procedures.

a) Work should not be over-dried in the tumbler. The drying cycle time should be adequate either to condition the particular classification of work to the required residual moisture content, or, in the case of fully dried work, to dry the load and no more, i.e. to avoid overheating the work – apart from which excessive drying will not only increase costs but will reduce fabric life considerably. Deficient areas here would be mainly Training with Housekeeping (lack of adequate procedure or system).

Particular care should be taken to reduce the drying cycle time commensurate with the size of the load if part loads are dried. Many fires have occurred in tumblers, (and storage following tumbler drying), when timers have been set for normal sized loads whilst drying a few articles only. Attention here Housekeeping systems and Training on the correct operating procedure.

b) Textiles should not be left in tumblers after the drying process is finished, but should always be unloaded immediately. Special attention here for Training and Supervision. Never leave work in a dryer overnight or when staff take their break.

Continued on page 2

c) Tumbler dried work should be separated and folded as soon as possible after removal from the tumbler. If this cannot be done, the work should be removed from the tumbler and spread out in such a way that the heat is lost quickly. Staff Training should cover this. If work is left in work barrows/trucks overnight and is warm or damp, or both, then spontaneous combustion can occur. Have operating procedures in place that ensure tumble dried work is not stored overnight in work barrows and in situations where this is unavoidable then train the employees to check the temperature within the stored load and spread them about so that there is no risk of spontaneous combustion.

d) Ideally, tumblers should be equipped with manual, or preferably automatic, means for cooling the load at the end of the drying cycle. Special attention with Training and Maintenance. Modern Tumble dryers will have moisture controllers which will turn down/off the heat source as the tumbled work is dried.

e) Have emergency procedures in place in case of electricity power cuts that cover removal of items from the tumble dryer because the loss of power supply may be for some considerable time. Make this part of staff training.

f) Supervision and staff must be clearly informed of the correct operational procedures when processing and handling tumbler dried work, and reminded from time to time regarding the necessary precautions. A Business fire could easily close down the operation and that may mean total business loss.

g) Consider the lighting within the building in cases of loss of electricity power. In this emergency employees will be required to empty the tumble dryer, or to fold work, or to spread out hot work to prevent spontaneous combustion. Do you need a level of emergency lighting for some areas sufficient to allow staff to carry out these very important tasks? Emergency lighting that comes on automatically in times of power loss are no longer expensive and with modern LED can be economic to fit and run.

Suitably worded notices attached to walls or stanchions in the tumbler drying and work storage areas are helpful to remind staff of procedures and this is something for Good Housekeeping and Staff Training.

Continual vigilance is necessary to prevent fires occurring. Managers and Supervisors should constantly monitor the situation to ensure that staff adhere at all times to the laid down procedures.



In the first two weeks of July a fire closed a laundry in Watford after this fire started over night, and ten days before photograph two shows one in Hythe, near Southampton, a fire which started at about 5.00am on July 3rd 2018