

Technical Bulletin

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Fire In Laundries

Fire is probably the biggest risk to the launderer and dry cleaner and can be caused by a variety of factors or situations. Prevention of fire in our business is therefore of major importance.

FIRE PREVENTION - LAUNDRIES

The ignition of fluff which collects in laundries can result in the rapid spread of fire. Fluff should be prevented from accumulating, and, in addition to regular removal from the more accessible places, electric motors, heating coils and tumble dryer ducts, should be regularly cleaned.

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. The areas under calender/ironer beds and around the operating mechanisms of cabinet garment finishing machines are particular danger points. Deficient areas here would be with the business [Housekeeping](#) and [Maintenance](#).

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 ironing machine/calender 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 and oven cloths 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 regular [Maintenance](#), [Training and Education](#).

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 due to spontaneous combustion and special attention should be paid to 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 staff [Training with poor 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. Look at [Housekeeping systems](#), and staff [Training](#).
- b) Textiles should not be left in tumblers after the drying process is finished, but should always be unloaded immediately. [This comes down to staff Training and Supervision](#).
- 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. Review staff [Training](#).
- d) Ideally, tumblers should be equipped with manual, or preferably automatic, means for cooling the load at the end of the drying cycle. Again review [Training and Maintenance](#).
- 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. Suitably worded notices attached to walls or stanchions in the tumbler drying and work storage areas are helpful. This again involves 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.

