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GUILD OF CLEANERS AND LAUNDERERS

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SAFETY IN LAUNDERING

In recent years all industries in the European Union have become safer places in which to work and, in general, working conditions and environments have been progressively improved to reduce the risk of dangerous occurrences or accidents to individuals employed. These improvements have come about by developments in procedures, better and more efficient plant and equipment and greater individual awareness by management and staff of their individual and corporate responsibilities. Although many of the changes arising from the above would undoubtedly have occurred by natural development, the greatest impetus came from the introduction of legislation governing employees, employers and workplaces. Legislation governing work places has been in force for many years some of the best known being the 'Shops, Offices and Railway Premises Act', 1963. 'The Factories Act', 1961, and 'The Health and Safety at Work Act', 1974, and arising from this Act, COSHH Regulations and a range of related legisation, including Manual Handling Regulations, etc.

More recently, working practice and environmental based regulations have been introduced for industry both in the UK and Europe and will affect laundries.

Laundry operations and safety aspects are areas where considerable effort has been expanded to improve and make safer what could be a very dangerous or high risk environment for employees. Old attitudes regarding safety can no longer be accepted as reasonable or valid and these have largely been replaced by a new awareness that safety is an area which is crucial to the efficient operation within the laundry industry.

Regular examination of safety records, accident reports or incident books can often be a valuable method of pin-pointing areas of deficiency or problems to be addressed and it is considered that most accidents can be attributed to one or more of three main groupings. These are:- Housekeeping; Maintenance; and Training.

Housekeeping in its broadest sense, in addition to the normal cleaning and servicing, includes the development of systems, records and procedures for all aspects of the operation of the plant.

These, if applied correctly and sensibly, remove the risk of uncertainty or casual attitudes towards the operation of the laundry and a good example of this practice is where laundries have developed their operations to ISO 9002 standards.

Maintenance; Likewise maintenance covers all aspects of plant maintenance including planned maintenance procedures; timely response to machine failure and repair requirements; repairs carried out correctly and to machine specification; 'temporary' repairs or services carried to a safe standard. As with the housekeeping element, the adoption of ISO 9002 has for many Launderers improved the level and general standard of maintenance services.

Training and Education: These together with supervision, including good management awareness of the operation, will reduce the risk of poor or bad practice and careless behaviour. Ignorance of danger amongst the workforce has usually been recognised as a major contributing factor to accidents in the past.

Induction of new staff in a structured manner, on-going support and the development of an in-house training system, with individual progress records for all staff together with good general information and communication systems will go a long way to remove ignorance of the job or the risk areas and considerably heighten individual awareness of their own and their colleagues well-being. Many of these issues are also covered within ISO 9002 procedures now being implemented in many European Union laundries.

The above three elements are not necessarily exhaustive, but from experience, any examination of accident reports or records will indicate deficiencies in one or more of these areas and it is considered that if attention is given to these three elements of any operation - with or without any ISO 9002 involvement - then the risk of untoward incidents or events will be greatly reduced.

It is well worth to remember that - ***ACCIDENTS DON'T JUST HAPPEN*** - there is usually an identifiable cause although this may be outside your ability to directly control or influence.

Areas of Risk in Laundries

Laundry operations depend on several factors and requirements to carry out washing and finishing operations. These include the use of water, chemicals, electricity, gas, steam and oil, in combination or singly, the use of temperature, textiles, time, and potentially the most dangerous of all - **people**.

The main areas of risk are associated with heat and power, chemical use and handling, machinery use and working practice. Within these categories, fire, scalds, burns (including chemical burns), trapping, nips or crush injuries, falls, slips or strains are regularly seen in accident logs.

Fire is probably the biggest risk to the launderer and can be caused by a variety of factors or situations. Prevention of fire in a laundry 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 cleaning 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

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mechanisms of cabinet garment finishing machines are particular danger points. Deficient areas here would be ***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 oxidisation of the textile fabric within the load. The risk is increased with hot work taken straight from a tumbler dryer or 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 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 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. Housekeeping systems, Training.

b) Textiles should not be left in tumblers after the drying process is finished, but should always be unloaded immediately. 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. Training. d) Ideally, tumblers should be equipped with manual, or preferably automatic, means for cooling the load at the end of the drying cycle. 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. Housekeeping and 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.

CHEMICALS - HANDLING, STORAGE, SAFETY—Perhaps, in some ways, the word CHEMICAL conjures up in the mind a substance which is nasty and dangerous. Indeed in the heavy chemical industry there are materials which are very unpleasant and could be dangerous if not handled with care and responsibility. That is the important thing, HANDLED WITH CARE AND RESPONSIBILITY. The same is true for detergents and cleaning materials. They are not dangerous if the manufacturers' instructions are followed. They can only become dangerous, or a problem, if mishandled. It is true some products are more powerful than others because of the nature of the task they are designed to perform, but there is no reason to fear them if some basic rules are followed. Let us consider these under three main headings - HANDLING, STORAGE, SAFETY.

1. Handling

i) Treat with Respect: Do not take liberties with products. Always be aware of the nature of the product in the pack being handled. Packs should always be handled with respect and not thrown about or subjected to rough treatment. Remember, if a container is damaged and leaks someone has to clean it up! Use trolleys or hand trucks for moving larger and heavy containers. Do not roll them along the floor - tops can, and do, come off. Always use dispensing aids if a product has to be transferred from one container to another.

ii) Obey Instructions: Make sure any instructions on the pack are understood and followed. Instructions like "NOT FOR MANUAL USE" or "FOR AUTO DOSING ONLY" mean just that. Manually dosing of detergents designed to go through auto dosing equipment can lead to all kinds of problems.

iii) Note Precautions: Note if any instructions are given about the wearing of protective clothing. This does not mean that the product is highly dangerous, but just that it is a wise precaution to wear protective clothing.

iv) Use Taps and Dispensers: To assist in the handling of detergents use, wherever possible, dispensers and taps on containers. This not only avoids the lifting of heavy containers, but also prevents wastage.

v) Avoid Skin Contact: Accidental spillage of "neat product" onto the skin can happen and should never be ignored. Always, as the first immediate step, rinse well with water and if necessary seek medical attention.
Check what instructions are given on the pack with regard to skin contact.

vi) Clean up Spillage's: Spillage's on the floor should always be dealt with promptly in the interests of safety for the personnel and the surface on to which it has been spilt.
Failure to clean up can result in someone slipping and being injured, or, serious damage to the surface.

vii) Replace Tops: Always make sure tops are securely fastened. Moving of containers without tops can result in splashing. Similarly containers left without tops on can be knocked over or contaminated by other material or evaporate and become useless.

2. Storage

i) Cool and Dry: Try and store chemicals in a cool, dry place. Heat can lead to instability of some products with subsequent loss of performance, (e.g. Hypochlorite liquids).
Damp conditions affect powders, making them either sticky or in some cases, rock hard. Chlorine based powders will rapidly deteriorate in damp conditions.

ii) Properly Labelled: Make sure all products are correctly labelled. This ensures that the correct product is used for the job. It avoids potential damage to surfaces and textiles by being mistaken for another product.

Sufficient Room: Store rooms ideally should be large and roomy to allow easy access and collection of product. This is not always possible - but avoid over-crowding, otherwise accidents can occur by difficulty in collection of product, i.e. "right at the back, but I can get it if I climb over this lot".

iv) Raised from the Floor: If possible, store containers off the floor, as this allows passage of air and facilitates cleaning of the floor.

v) Drainage Facilities: It is advisable for store rooms to have drainage facilities, but it is appreciated that this is not always possible. Drainage enables spillage to be washed away more easily and also to help with cleaning.

vi) Separate Acids and Alkalis and bleaches: Acids and alkalis should always be separated in case of spillage and possible interaction. For example, acid and bleach, if mixed, will liberate chlorine gas.

vii) Correct Shelving: Depending on the products to be stored, choice of shelving could be important. Deep shelving can lead to things being pushed to the back and forgotten. Leakage can go undetected for some time until often it is too late and the shelving has been damaged, and other adjacent products contaminated.

viii) Stock Rotation: Often insufficient attention is given to correct stock rotation. Although most products have a fairly long shelf life, extended storage can lead to a deterioration in their efficiency.

3. Safety

i) Follow Instructions: Reputable suppliers all give very explicit application instructions which should be followed very carefully. These instructions are designed for the safety of the user as well as to ensure the full potential of the product. So note the recommended concentrations, method of application, any precautions such as protective clothing or surfaces upon which it is **NOT** to be used.

ii) Do Not Mix Chemicals: Chemicals should never be mixed together unless the manufacturers have stated that it is safe to do so. Mixing of chemicals can lead, in some cases, to violent reactions or liberation of, for example, Chlorine gas. If products are to be mixed, then do it in their respective dilution's, never "neat".

iii) Add to Water: It is safer to add chemicals to water and not the other way round. Any splashes, therefore, are of dilute material and not concentrated product. Additionally, some highly alkaline powders generate heat when added to water, and this will be minimised if this advice is followed.

iv) Colour Code: Where possible use products with a colour code system. This helps to ensure that the correct product is used and is also in the interests of the user. For example, Green - suitable for use manually; Red - Caution, powerful detergents, wear protective clothing; Blue - bactericidal product for sanitising.

v) Consider Soil/Surfaces: Protection of surfaces is just as important as that of the user. Always consider the soil, its type, age, level, as well as the substrate from which it is to be removed. Once aspects relating to the soil and surface to be cleaned have been identified, the choice of the product to be used will become clearer and should prevent damage to the surfaces.

vi) Never Horseplay: Finally "fooling around" with all chemicals can be extremely dangerous. Squirting of cleaning solutions at one another should be stopped at once.