



NORTH CAROLINA DEPARTMENT OF LABOR

No. 72-1

OSH DIVISION

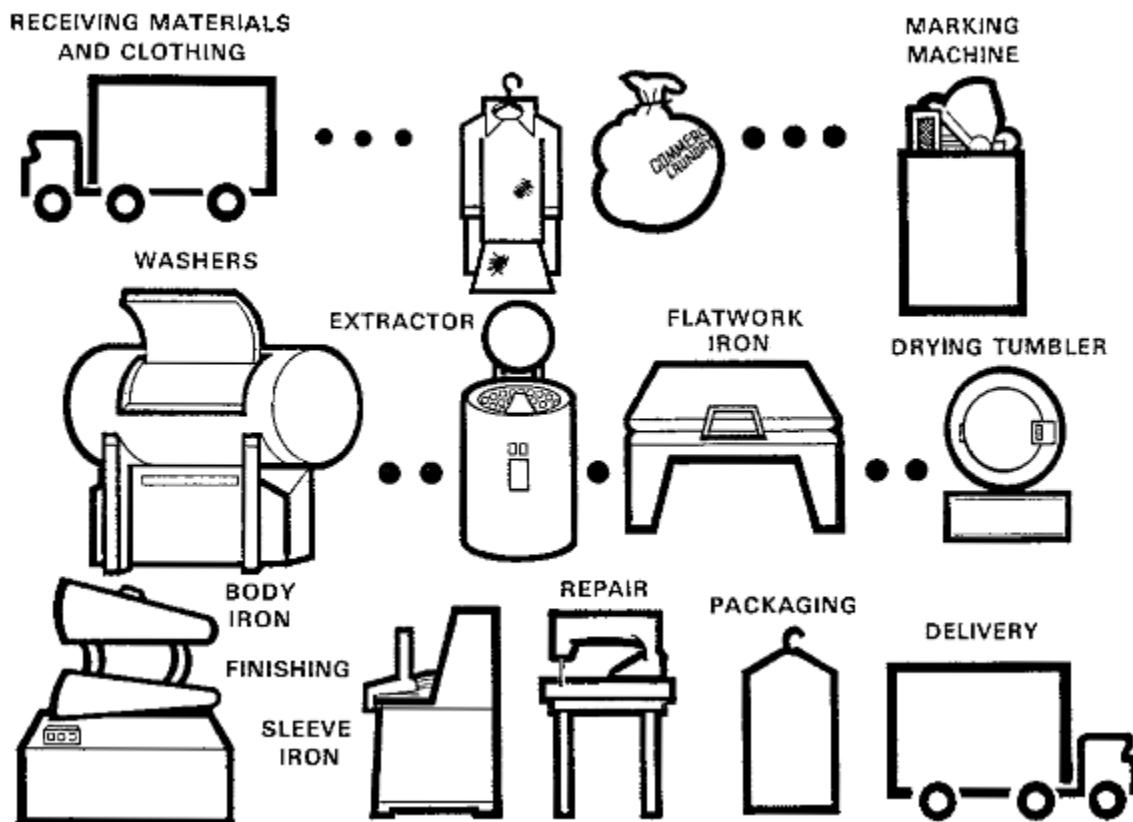
Date: 10/2009

OSHNC INDUSTRIAL DATA REPORT

Pages: 3

Industry: LaundrySub-Group: Laundry and Dry CleaningSIC: 7211 and 7216NAICS: 812320

PROCESS DESCRIPTION: In laundry operations the clothing is checked in and marked by machines. After marking, clothes are sorted according to color and type of materials. Then they are loaded into washers, transferred to extractors and sorted (wearing apparel, towels, and flatwork are separated). Flatwork goes to ironers, towels to drying tumblers and wearing apparel to finishing machines. After finishing materials are examined by checkers, sorted and packaged ready for delivery. The dry cleaning process follows a similar process except no water is used in dry cleaning baths. Methylene chloride may be used as the cleaning agent.

PROCESS FLOW:



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Hazards Analysis

Major Hazards			Other Hazards		
Location	Item	Hazard	Location	Item	Hazard
Wash room	Washers, extractors, lack of interlock, V-belt and gears	Crushed limbs	Finishing room	Wearing apparel processes	Burns, hands and fingers
	Caustics	Eye and body burns			
Finishing room	Flat work, ironers, safety bars on feeders, covers for pressure, rolls, gears, power	Hands, fingers and arms crushed, cut or lacerated	Throughout	Steam pipe Ventilation Electric motors, switches, wiring	Burns Heat stress, hot working conditions Shock; electrocution
Dry cleaning	Solvent vapors	Fire, explosions, methylene chloride	Finishing room	Sewing machines	Needle punctures
			Wash room	Wet floors	Slips and falls

Key OSHNC Standards

Reference	29 CFR 1910 — General Industry Standards
Subpart D	Walking and working surfaces
Subpart I	Personal protective equipment
Subpart O	Machinery and machine guarding
Subpart S	Electrical
1910.94	Ventilation
1910.147	Control of hazardous energy – (lock-out/tag-out)
1910.151	Eyewash and emergency showers
1910.264	Laundry equipment
1910.1000	Air contaminants
1910.1052	Methylene Chloride
1910.1200	Hazard Communication



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Inspection Analysis

The inspection should begin in the marking area by checking mechanical markers. In the washing room, check washers and extractors for interlocks. Note floor conditions in same area. In finishing area, check flatwork ironers for safety bars across feed rolls and during tumblers for interlocks. Always check all mechanical equipment for proper guarding and all electrical equipment for proper grounding. Steam and hot water pipes must be covered or guarded to seven feet above floor. Check guards on mechanical apparatus for size of opening. Note all walking surfaces, steps and platforms and check for housekeeping in entire plant. Determine adequacy of ventilation in conjunction with levels of solvent exposure.

Other Pertinent Comments: The use of methylene chloride in dry cleaning operations may pose a potential cancer risk to employees in dry cleaning operations. Other employee exposures include temperature extremes, particularly heat stress, chemical, wet conditions, electricity, rotating machinery and fire and explosion. Various type accidents and injuries occur from electrical shocks (combinations of wet conditions and ungrounded or defective electrical equipment) and broken limbs or amputations from unguarded power driven machinery.

The dry cleaning industry uses the washer-extractor type of machine in which clothing is put into the washer, washed and extracted and removed to the drying tumbler. Piping systems for the use and recycling of cleaning solvents are of the closed pipe type and are generally well maintained.