



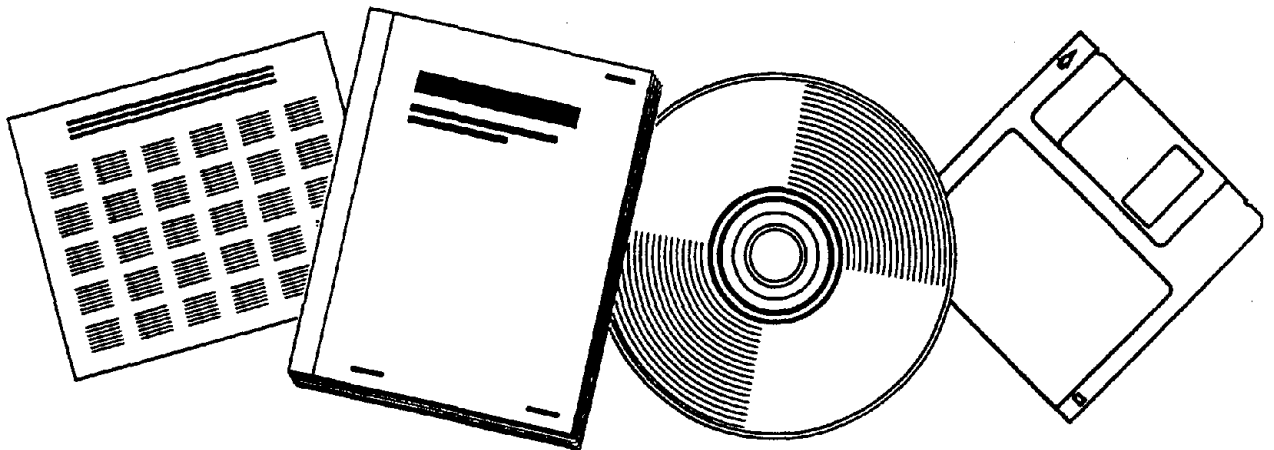
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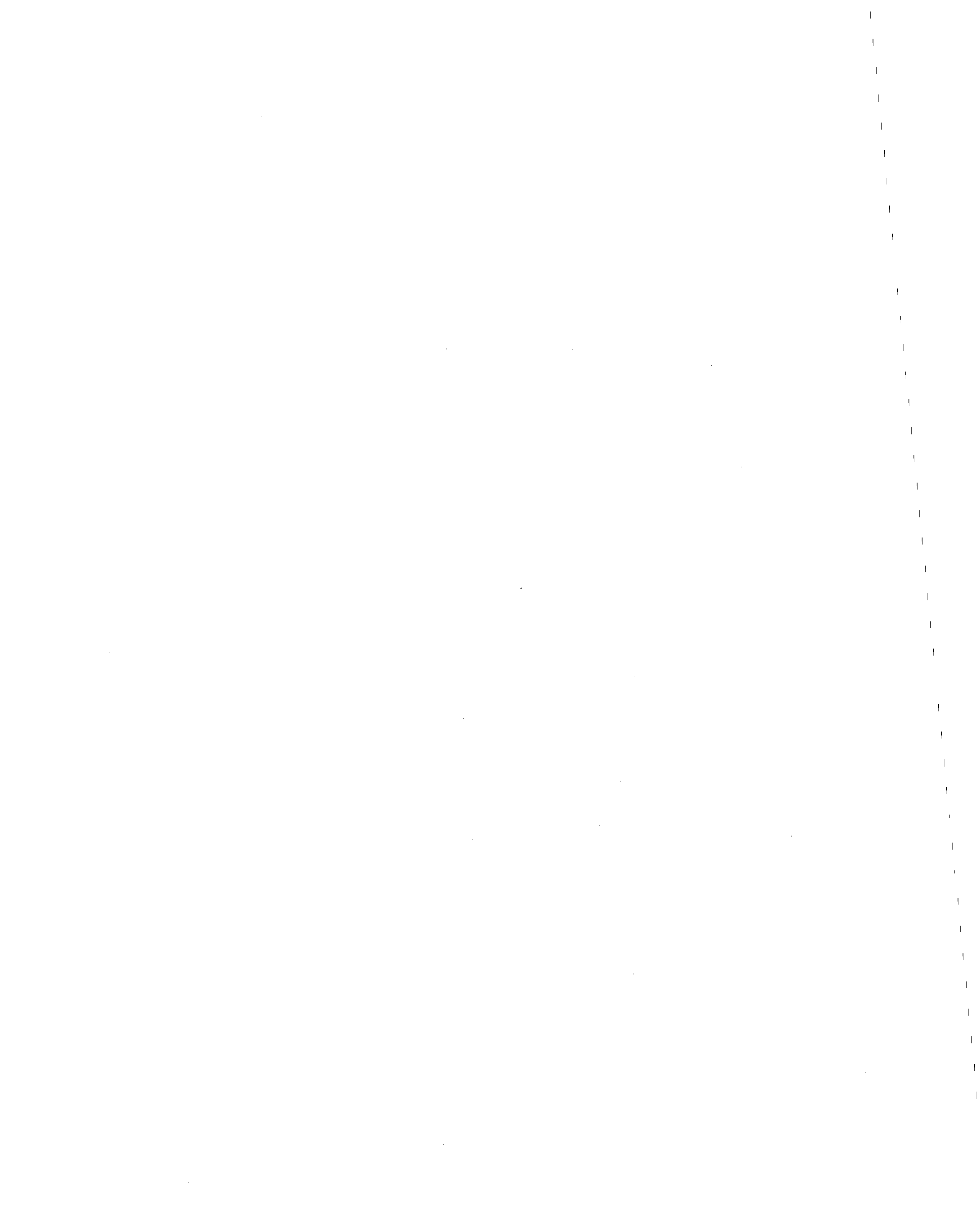
PLANT OBSERVATION REPORT AND EVALUATION MALDEN MILLS, INC

(U.S.) NATIONAL INST. FOR OCCUPATIONAL SAFETY AND HEALTH
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PLANT OBSERVATION
REPORT AND EVALUATION

MALDEN MILLS, INC.

February 27, 1981

210-79-0001

PLANT OBSERVATION REPORT AND EVALUATION
(may contain proprietary information)

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Lawrence, MA 01841

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Date of Visit: September 22-23, 1980



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16. Abstract (Limit: 200 words) Malden Mills, Inc., Lawrence, Massachusetts was the site of an occupational health and safety survey. The facility had four divisions: fur, flock, cloth, and woven. Operations included dyeing, finishing, blending, carding, and knitting. The Malden Mills facility produced about 1 million yards of finished piece goods per week, and employed 2,338 workers of whom 1,930 were hourly. Management had demonstrated support for a projected safety and health program at the site. The company has a sound level meter and appropriate calibrator and readings have been taken in the past, but not on a regular basis. When accidents occurred they were reviewed by a supervisor to prevent recurrence. All lost time accidents were reviewed. A general practitioner was available on a part time basis. Each employee received a preplacement physical examination, including urinalysis and pulmonary function tests. A survey of operations was carried out and specific observations were reported. These observations pertained to canopy hoods of the ventilation system, guarding of guillotine cutters, dust in the bagging area, sound levels, fluorocarbon vapors in the air, unguarded equipment, ammonia like odors, lack of personal protective equipment for those involved in weighing and transferring dye powders, and possible exposure to acid mists.			
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Background

Malden Mills was founded about 75 years ago. In 1955 the company acquired the Lawrence, MA, location, which had been founded in the 1870's by Arlington Mills. Malden greige mills are located in Vermont, New Hampshire, Maine, and Lawrence, MA. The Vermont plant is a weaving mill, parting and knitting are done at the New Hampshire and Lawrence sites, and two plants in Maine produce knit and short-pile goods.

The Lawrence plant consists of four divisions: fur, flock, cloth, and woven. In addition to performing the major dyeing and finishing operations, the plant also blends, cards, and knits furs. Only synthetic fibers or piece goods are received at the plant. Primarily acrylic and nylon fibers are processed in the fur and flock divisions, respectively.

About 1 million yards of finished piece goods are produced per week, with appropriate breakdown by type as follows: woven, 120,000 yards per week; knit, 355,000; flocked, 300,000; and fur, 255,000. Finished products are used for upholstery in home furnishings and automobiles, women's fur coats, and fur coat linings; approximately half of the finished goods are used for upholstery and half for apparel.

As of August 1980, the Lawrence plant employed 2,338 workers; 1,930 were hourly-wage employees and 408 were salaried. The number of hourly-wage employees by department and by sex is shown in Appendix A. All hourly-wage personnel belong to the International Ladies Garment Workers Union.

The plant operates three 8-hour shifts per day, 5 days per week, 50 weeks per year. It is closed the first 2 weeks in July, which is the usual practice for textile plants.

Safety and Health Program

(a) Management Involvement

At the time of the visit, the Corporate Director of Safety (CDS), who has total responsibility for expanding the plant's safety and health program (SHP), had been employed by Malden Mills for approximately 1 month. Therefore, parts of the SHP were either then being set up or in the planning stage.

Management has shown support for the projected SHP. For example, before the CDS was hired, management pledged support for more extensive sample monitoring and promised to purchase the necessary air-sampling equipment; in addition, management has committed itself to the CDS's long-term objective of having a safety specialist within each division. The CDS feels that management is concerned about the safety and health of employees and is committed to the development of an adequate SHP. Discussion of specific examples, such as those cited above, indicated this to be the case.

(b) Statement of Policy

A safety policy is set forth by the company president in the employee handbook. He states: "We consider it our responsibility to give you good and safe working conditions. Please rest assured that we are constantly working to improve these conditions." This handbook (see Appendix B) is given to each employee at time of hire. A safety policy is also stated in the Supervisor's Manual. Appendix C is a copy of Chapter III, "Safety"; the safety policy is stated in Section B, paragraph 1, p 18.

(c) Safety Committees

Safety committees are organized at both the division and the department levels; all meet monthly. Division safety committees are composed of department managers, supervisors, and hourly-wage employees selected by management on the basis of interest shown in the SHP. Members conduct monthly safety inspections and develop recommendations resulting from these inspections and accident investigations.

Each shift also holds departmental safety committee meetings. These meetings are chaired by supervisors, and all hourly-wage employees participate. Topics discussed include accident and injury prevention, machine safety, and safety inspection recommendations.

(d) Safety Inspections

As indicated above, written recommendations resulting from the division safety committee inspections are discussed at both division and department safety committee meetings. Supervisors are responsible for acting on these recommendations. In addition to safety committee inspections, the plant's self-insurance plan provides regular safety inspections by a consultant.

(e) Health Hazard Evaluations

Malden Mills has a sound level meter and appropriate calibrator. Sound level readings have been taken in the past, but not on a regular basis. The plant also has smoke tubes, and the CDS uses them to determine airflow direction resulting from general ventilation control systems. The CDS has ordered an audio dosimeter, low- and high-flow pumps, and a colorimetric tube tester kit. He will use this equipment to conduct sampling and evaluate sound levels to help detect health hazards. The CDS has had ample experience in sampling and analytical procedures.

Massachusetts industrial hygienists have provided consultation under the State Occupational Safety and Health Administration (OSHA) program, but reports could not be obtained. The Lawrence location has also been inspected by State OSHA compliance officers, including industrial hygienists. The plant was cited for excessive nuisance dust at a nylon fiber flocking operation; the citation has since been abated.

(f) Accident Investigations

Accidents are initially investigated by a supervisor to prevent recurrence. The supervisor fills out a supervisory accident investigation form (see Appendix D), and the plant nurse then uses this information to complete the State employer's first injury report. The CDS investigates all lost-time accidents to prevent recurrence and provides the information on a separate accident investigation form.

The supervisor is responsible for ameliorating or eliminating the cause of accidents. Recommendations resulting from accident investigations, including followup investigations, are discussed at the division safety committee meetings. Accident costs are charged to the appropriate department.

(g) Safety and Health Education and Training

The employee handbook contains a section entitled "Health and Safety" (Appendix B, pp 15-16). Also, the pamphlet "OSHA Safety and Health Standards Digest" is given to new hires (Appendix E). Employees are requested to read these, although there is no followup. The supervisor uses an orientation check list (Appendix F) in training new employees. The check list includes safety and health training (Section B, "Safety Orientation"); however, since safety procedures are included in on-the-job training, safety procedures specific to a particular job are not discussed. A safety newsletter (Appendix G) is published monthly,

providing another means of educating employees about safety and health issues.

(h) Medical Program

A general practitioner is available part time. In the future, the plant will use the services of three doctors at a nearby medical unit, a practice that the CDS feels will improve medical care for employees. Two registered nurses are employed full time during the first shift to provide first-aid treatment, give physical examinations and audiometric tests (the plant has an audiometric testing booth), maintain the OSHA accident log, complete employer's first injury reports, and maintain employee accident files. For the second and third shifts, first aid is provided by employees (primarily security guards) trained in first aid and certified in cardio-pulmonary resuscitation.

Each employee is given a preplacement physical examination, which includes a urinalysis and a pulmonary function test for those who will wear respirators. The examination form also provides some medical history information. Periodic physical examinations are not given. A return-to-work examination is given if an employee has been absent for 2 weeks or more. The nurses perform hearing evaluations only for employees who will be working in designated high-noise areas. If the audiogram indicates a hearing loss, the employee is sent to a specialist, who performs a second audiogram and reevaluates the results.

Survey of Operations

(a) Flock Division

(1) Dyeing

For flocking, 100% nylon fiber is used. Raw white fiber is received in tows (continuous strands of fiber) and dyed. In the first dyeing step, the tows are drawn through an enclosed dye bath and steam box. They then pass through several non-exhaust-ventilated water wash baths and a final non-exhaust-ventilated bath, where a lubricant is applied; the lubricant allows the tows to move smoothly through cutting machines.

Specific Observations--Canopy hoods were located over the entrance and exit from the dye bath-steam enclosure. The hoods were not capturing visible steam on either day the operation was observed, probably because an exhaust fan had broken down. Plant personnel said that the maintenance department was notified of the malfunction a couple of days before the visit, but had not yet repaired it. On the second day, the observation team smelled a strong, sweet odor indicating release of aromatic solvent vapors. Observations of escaping steam plus an aromatic solvent vapor smell indicated that employees working at this process may be exposed to toxic contaminants. The extent of the hazard is not known.

(2) Cutting

After dyeing, the tows are transferred in boxes to the cutting operation, where they are fed to small automatic guillotine cutters. The fiber flock is then transferred in bags to the fiber preparation area.

Specific Observations--The guillotine cutters were provided with point-of-operation guarding, which reduced the risk of physical injury. Any dust produced should be considered nontoxic since it would be nylon dust.

(3) Fiber Preparation

Fiber preparation involves slurry treatment to make the fiber more responsive to an electrostatic field. Fiber flock from bags is dumped through a hopper to a slurry tank. The slurry liquor, which consists of chelating agents, salt, and proprietary compounds, is pumped into the tank separately. The slurry (flock plus liquor) is pumped to an extractor, where the slurry liquor is removed by centrifugal force. Wet fiber is then pumped to a dryer, and the dried fibers are transferred pneumatically and by gravity to plastic bags. The bags are stored in the flock room.

Specific Observations--The bagging area was quite dusty because of inadequate seals between piping and bags and because of "puffing up" of flock into the air after the filled bags were removed from pipes and tied. The level of nuisance dust has never been determined, but exposure may be excessive, presenting a possible health hazard.

(4) Napping and Application of Adhesive

Cloth backing to be flocked is napped, and then an adhesive is applied to the napped side of the cloth. The adhesive is prepared in the adhesive mixing room, where a latex emulsion is transferred from bulk storage through enclosed lines to open mixing drums. The operator manually weighs out various chemicals (eg, clay used as filler) in an area without local exhaust ventilation, and the chemicals are added to the drums. In the same room, aqueous ammonia is transferred from a horizontal 55-gallon drum to a bucket. An exhaust canopy hood is located over the top of the drum, and captured air flows from the hood through a flexible duct to a stationary duct that ends immediately after exiting the outside wall. Ammonia in buckets is then transferred manually to the mixing drums and mixed without local exhaust ventilation.

After ammonia is added to the adhesive mix, the mixing drums are wheeled to the blade room. Here adhesive is applied to the cloth with a doctor blade in an area without local exhaust ventilation. The thickness of the adhesive is measured with a beta-thickness gage. Two other such gages are used at other plant operations; all three are registered. A radiation survey is conducted every 6 months, and wipe samples are taken. The radiation exposure presented by the three beta gages has never been in violation of State OSHA regulations.

Specific Observations--According to plant representatives, sound level readings indicated that the noise level at the nappers approximated the

8-hour permissible noise exposure ceiling of 90 decibels, A scale (dBA), measured at slow response. Thus, an excessive noise exposure could exist.

In the adhesive mixing room, windows were open in the wall next to the exhaust duct's point of exit; this could allow exhausted ammonia gas to recirculate into the room and cause an excessive ammonia gas exposure. In addition, employees could be exposed to airborne ammonia at the mixing drums. Plant representatives stated that Malden Mills will use bulk storage and transfer of ammonia in 1981. This practice should eliminate exposure to ammonia gas during transfer of the chemical from holding drum to bucket and from bucket to mixing drum. The mixing drums used in this area weighed about 1,000 lb, and operators who wheeled them from room to room could suffer sprains, strains, or back injury.

Some ammonia gas was smelled in the blade room. However, GTI does not feel that the exposure was excessive.

(5) Flocking and Curing

The adhesive-coated cloth goes to the flock room, where fiber flock is mixed with air and pumped onto the adhesive side of the cloth with the aid of an electrostatic field. Excess fiber is transferred through open chutes to hoppers.

Flocked cloth goes from the flock room to a curing oven that is isolated in a separate room. After curing, the cloth is mechanically brushed;

the excess flock is vacuumed off and reclaimed in flock filter bags in the curing oven room. Finally, the flock cloth is pressed and then processed through either the crusher line or the screen print department.

Specific Observations--Open transfer of excess fiber in the flock room created a very dusty environment. As stated previously, State OSHA compliance officers sampled for nuisance dust at this operation, and Malden Mills was found to be in violation of the Federal time-weighted average (TWA) standard for nuisance dust of 15 mg/m^3 . Although the citation has been abated, it appears that airborne fiber exposure could still exceed the standard. GTI was informed that Malden Mills does have a research and development flocking line that is being used to study methods for enclosing excess fiber transfer.

The curing oven room was extremely hot (139 C), and employees must remain in the room for approximately 15 minutes to remove flock filter bags. Since no personal protective equipment is worn, the hot environment could lead to heat stress or heat exhaustion.

GTI took sound level readings at brushing machines with a B&K type 2203 sound level meter. (The meter was calibrated before and after use with a B&K type 4230 sound level calibrator.) The results were as follows:

<u>Location</u>	<u>dBA (slow response)</u>
General area reading taken at sewing machine at front of two brushing machine lines closest to wall, about equidistant from both brushing machines	84-88
General area reading taken at work table located between two brushing machine lines	88-94

These readings indicated that the noise exposure at the brushing lines may be excessive.

(6) Washing

The material is washed and dried before crushing. For screen printing, it is washed and dried either before or after printing, depending on the type of print goods needed.

The washer line consists of the following operations in series: (1) non-exhaust-ventilated pad of a sodium carbonate solution (approximately 49 C), (2) non-exhaust-ventilated pad of a surfactant solution (49 C), (3) non-exhaust-ventilated pad of an antistaining solution (49 C), (4) three non-exhaust-ventilated water wash pads in series (49 C), (5) non-exhaust-ventilated fluorocarbon-water pad, and (6) pad squeeze roll. Between all of the pads are brushes, beater rolls, and squeeze rolls. After the last squeeze roll, the cloth passes through an exhaust-ventilated drying oven and is folded.

Specific Observations--Fluorocarbon vapor could be smelled at the saturator pad, thus presenting a possibly hazardous exposure. Beater rolls were exposed, presenting the potential for hand injury. Malden Mills explained that this hazard was brought up at a safety committee meeting and that the possibility of guarding the beater rolls was being studied.

Results of sound level readings taken at washer line 1 with the B&K type 2203 sound level meter were as follows:

<u>Location</u>	<u>dBA (slow response)</u>
Operator's control panel at beginning of line	
(a) With line running and all steam on	92
(b) With line running and most steam shut off	85
General area readings taken along entire length of line, about 3 feet from line	
(a) With line running and all steam on	89-92
(b) With line running and most steam shut off	85-88

These readings indicated that steam was a major source of the noise exposure. The exposure could be reduced by reducing the steam pressure, if feasible, installing steam noise mufflers, or acoustically lagging steam lines.

(7) Crusher Line

Cloth that goes to the crusher line passes through crusher rolls and steam setting to obtain a crushed face. The cloth is then stretched and dried on a tenter frame.

Specific Observations--Unguarded rollers under the machine table presented an exposed nip point and potential cause of hand injury.

(8) Screen Print Department

Most of the cloth processed in the screen print department is flocked. This department consists of one manual screen print line for samples, one rotary screen print line, and four automatic screen print lines.

Print pastes used for manual screen printing are mixed in the small color shop; here powders are weighed and manually transferred to buckets for mixing with water, a thickener, and a leveler. The paste is applied by two employees who manually dump print paste onto a screen over a sample and force it through the screen with a squeegee.

Print pastes for the five production lines are made in the production color shop. In this area, ceiling exhaust fans provide dilution ventilation. Man-cooling pedestal fans are used in warmer weather. To make print pastes for all fabrics except knits, powders are manually weighed and mixed with a thickener and leveler in an aqueous solution. Print pastes used for knits contain the organic solvent Varsol. This chemical is transferred from a bulk storage tank on the roof through a line to a bucket in the color shop. After the bucket is manually filled, the contents are transferred and mixed without the use of local exhaust ventilation. Since knit fabrics are processed only about once per month, Varsol is not used extensively.

For the rotary screen line, print pastes are pumped out of uncovered drums to the rotary screens. For the screen print lines, the pastes are manually dipped out of uncovered drums to the screens. The printed cloth then goes through exhaust-ventilated ovens.

Knit printed cloth in rolls is processed through a pressure cooker (104 C) to permanently bond the print to the cloth. All other printed cloth is processed through continuous steam agers in an area with three wall exhaust fans that provide dilution ventilation.

Specific Observations--A strong ammonia-like odor was observed at the manual screen print operation. (Ammonia is sometimes used as a thinner for print pastes.) Several windows in the room were open, providing natural dilution ventilation. During colder weather the room is closed, and dilution ventilation is provided by two wall exhaust fans. This could create a negative pressure within the room and an even greater ammonia exposure hazard.

The visiting team noticed print pastes in open buckets. These buckets should be covered when not in use to reduce airborne contaminant exposure through evaporation.

Varsol could be smelled in the production color shop, since a print paste for knit fabric was being prepared. An excessive Varsol vapor exposure could be present. Very little Varsol was smelled in the production area at the screen print line where it was being used.

Much smoke was seen escaping from between the two ovens used for the screen print lines. This smoke could present a toxic exposure, although the exact composition of the smoke is not known. Plant representatives pointed out that the positive pressure within the ovens was primarily due to incomplete installation of a new scrubber.

The production area was very hot and humid, especially between the ovens. This environment could cause heat stress or heat exhaustion in unacclimated employees. Malden Mills gives extra breaks and unlimited lemonade to employees working in very hot areas.

Use of the steam agers or pressure cooker did not seem to create a hot environment. GTI was informed that ager steam line leaks are checked for and repaired weekly. This would reduce the potential for an excessive noise exposure as well as reduce the risk of a hot environment. An ager is shut down if a large leak is found.

(9) Final Processes

After printing, the fabric is returned to the flock division for a final washing and drying. It is then either brushed or tigered (a process in which a wire roll pulls up and straightens the fibers), and, finally, inspected.

(b) Fur Division

(1) Dyeing

(A) Dye Preparation

Dye liquors used for the fur and cloth divisions are prepared in the same drug room. The room is provided with conditioned air. Dye powders stored in drums are manually weighed on non-exhaust-ventilated scales in one room within the drum room. In a connecting room, the dye liquors are prepared in six mixing tanks that are grouped in pairs. Liquid carriers are usually hand dipped from supply drums to buckets, hand carried to the mixing tank, and dumped into the tank. Acetic acid in bulk storage is added to mixing tanks through enclosed lines. Mixed dye liquors are

dropped through the bottom of these mixing tanks to 30-gallon buckets in the dyeing area. These buckets are wheeled to the dye kettles and pressure becks for dye liquor transfer.

Specific Observations--Employees weighing and transferring dye powders, transferring carriers, and working at the mixing tanks were not required to wear any personal protective equipment. As a result, these employees could have skin or eye contact with toxic materials, leading to dermatitis, sensitization, or skin absorption and consequent internal injury. One dye weigher was wearing a paper bag over the hand holding the scoop he used to transfer dye powders out of drums, thus protecting his hand from contact with the dye powder.

Each pair of mixing tanks was provided with local exhaust ventilation control, which should reduce employee exposure to toxic airborne contaminants. Two tanks were located entirely within each exhaust booth.

The drug room was equipped with an emergency shower and eyewash. Employees not working in the drug room were taking breaks there, probably to cool off; these workers were unnecessarily exposing themselves to possible toxic contaminants.

(B) Dyeing Operations

Predominantly acrylic fiber is dyed in the stock dye department in either six atmospheric kettles or nine pressure jet dye becks. Both types are loaded manually.

Employees push rolling carts to an atmospheric kettle, and fiber is loaded into the kettle's horizontal perforated drum. The dye liquor is added to the kettle from a 30-gallon bucket by vacuum with the use of flexible tubing. The drum then rotates through the steam-heated dye liquor. After the fiber is dried, the dye liquor is pumped out of the kettle through a hose to a drain in the floor. The fiber is then rinsed in the kettle with water, the water is pumped out of the kettle, and the wet fiber is manually raked out of the drums into rolling tubs. The tubs are then manually pulled away.

The dye liquor is automatically pumped into pressure becks, and the fiber is automatically rinsed. Spent dye liquor and rinse water are transported below the floor in open troughs. Here fiber is filtered out of the effluent dye liquor and rinse water, transported above the floor on an inclined conveyor, and properly disposed of.

Specific Observations--Kettles in the atmospheric dyeing area had unguarded drive mechanisms and shafts, which presented a source of potential hand injury. Guards had been removed from drive mechanisms and not replaced.

Steam was seen escaping from the open doors of the atmospheric dye kettles. No local exhaust ventilation was provided to capture the escaping steam. Escaping steam indicated that other air contaminants may be escaping. Organic solvent vapors, possibly including acetic acid mist, could be smelled. The industrial hygienist experienced some eye burning. Employees could be exposed to excessive concentrations of toxic air

contaminants. The escaping steam was exhausted from the building by roof exhaust fans. The wall at the end of the stock dye department was louvered so that outside makeup air could be provided as needed. This type of ventilation control could allow contaminated air to recirculate into the building through the louvered wall, thus defeating the purpose of a dilution ventilation control system and increasing the possibility of excess exposure to toxic airborne contaminants.

Employees unloading dyed fiber into tubs were not required to wear gloves, even though their hands did come in contact with wet dye on the fiber. Contact could lead to dermatitis or skin absorption of a toxic dye. Areas of the floor at the atmospheric dye becks were very wet with water and dye liquor, presenting a slip or fall hazard. Since spent dye liquor was pumped through a hose to a drain in the floor, partial flooding occurred. Employees are given safety footwear twice a year, but these shoes do not have slip-resistant soles.

Employees who pulled away the heavy tubs of dyed fiber from the becks could develop strains or sprains of the back or other injuries. Such injuries could also result when workers used rakes to remove dyed fiber from becks. If longer rakes were used, workers would not have to bend as far, and thus the risk of injury would be reduced.

Weight capacities were not listed on hoists. One hoist wire rope was frayed, which could cause the rope to break under a load.

The visiting team saw one employee standing inside a pressure dye beck to clean it. The employee wore no personal protective equipment to safeguard against skin or eye contact with the spent dye liquor.

(C) Dye Extraction and Blending

Excess moisture from recently dyed fiber is removed by two automatic extractors. After extraction, the fiber goes through a dryer that removes any remaining moisture. At the blending operation, which compares with the opening operation in yarn manufacturing, various types and colors of fibers are combined. Blended fiber is carded in a process that somewhat aligns the fibers into a continuous strand called a sliver. The slivers are then knitted on tubular knitting machines with blended fiber that is concurrently blown into the slivers to form a furlike cloth.

Specific Observations--One of the extractors did not appear to be balanced, and its top was not secure. As a result, it appeared that operation of the extractor could lead to an excessive noise exposure.

(2) Finishing

The dyed knitted tubes of cloth are continuously slit open with a knife to form a flat piece that is backcoated to add stability. The latex emulsion used for backcoating is prepared in the chemical makeup room located on the second floor. Latex emulsion and other finishes are prepared in this room for fabric processed in the cloth and woven divisions.

Chemicals used to prepare finishes in the chemical makeup room are transferred to four non-exhaust-ventilated, uncovered mixing tanks either from bulk storage tanks or manually from drums. Mixed finishes are transferred by pressure from the mixing tanks through enclosed piping to enclosed holding tanks within the room, and from the holding tanks by gravity through piping for use on the first floor.

For backcoating, an exhaust-ventilated pad is used to apply the latex emulsion (composition unknown) to the back of the cloth. The cloth then goes through an exhaust-ventilated oven to a tenter frame. The fur face of the cloth is mechanically finished by passing it through a series of operations: shearing (a rotating, multiblade cylinder cuts the face pile), tigering, and ironing (a rotating heated cylinder applies heat to the face fibers to impart luster and train the fibers in the right direction). In addition, either water or a water-silicone mixture is sprayed on the face pile before ironing in order to facilitate ironing. After finishing, the cloth is inspected and packaged for shipment.

Specific Observations--Aqueous ammonia was transferred to open mixing tanks in the chemical makeup room without the use of local exhaust ventilation. When the ammonia was dumped from a drum to a mixing tank, the employee turned on two wall exhaust fans and positioned himself so that the drum and mixing tank were between him and the fan. Thus, the exposure was minimized, since ammonia gas should be drawn away from the employee's breathing zone. Should the employee forget to turn on the fans or position himself in the path of ammonia gas, an excessive exposure may result.

Employees working in the chemical makeup room were not required to wear specific personal protective equipment to guard against skin or eye contact with toxic materials. The room was equipped with an emergency eyewash and shower.

(c) Cloth Division

(1) Dyeing

Knit, tufted, and woven piece goods are dyed in the piece dye department. Operations involved in dye preparation and specific observations are as discussed above for the fur division. Dyeing is done with the use of 11 locally exhaust-ventilated rope atmospheric dye becks and 9 pressure jet dye becks.

Specific Observations--Virtually no steam was seen escaping from any of the 11 locally exhaust-ventilated atmospheric dye becks, in contrast to the steam observed escaping at the 6 non-exhaust-ventilated atmospheric dye kettles in the fur division. The exhaust control eliminated acetic acid mist and solvent vapor odor, whereas odors were noticed at the atmospheric dye becks which had no local exhaust ventilation control. The local exhaust ventilation systems were capable of controlling the solvent vapor and acid mist exposure.

Some of the front doors on the atmospheric becks were open during operation. Closing the doors would increase exhaust control of air contaminants and reduce splashing of dye liquors on employees and on the

floor. The floor around the becks was wet with splashed dye and water, and workers could easily slip or fall.

Since the nine pressure jet becks were enclosed during dyeing, there was less risk that employees could be exposed to airborne contaminants. No contaminants were smelled in the area around these becks.

For repairs, maintenance personnel occasionally must enter the pressure jet vessel through an approximately 4-foot circular opening. Malden Mills has no specific procedure for entering confined spaces. Although the beck should always be cleaned before entry, a maintenance worker could be exposed to residual chemicals if cleaning is not done properly, or another employee could accidentally fill the beck while the maintenance worker is inside, thus causing injury.

Drums of chemicals needed for dye preparation were stored in the piece dye department. Some of the drums were uncovered. All should be kept covered to reduce potential exposure to airborne contaminants. GTI was informed that chemical materials are transferred to drums in this area and not properly labeled. Chemicals should be kept in their original drums to facilitate proper handling and usage.

(2) Finishing

After cloth is dyed, an extractor removes excess moisture. For knit cloth, the tube is slit. All cloth to be napped passes through a non-exhaust-ventilated bath of a finish solution to facilitate napping.

At the end of this line, the cloth is folded into a cart. Most cloth is then processed through an exhaust-ventilated drying oven. Some cloth is run through steam-heated cylinders (steam cans), which condition and improve the appearance of the cloth, and then through an exhaust-ventilated dryer oven. The next step is napping, shearing, or tucking.

Most fabric is then processed on tenter frames through exhaust-ventilated ovens for heat setting. The back fibers of the fabric are locked into place by exposure to heat from coils in the oven. After heat setting, the cloth may be processed through open, non-exhaust-ventilated pads containing fire-retardant solutions (composition not made available).

Some cloth is backcoated in a process identical to that described for the fur division. After this step, it is placed on a tenter frame and sent through an exhaust-ventilated drying/curing oven. In addition, cloth may be mechanically finished. This operation includes ironing, shearing, brushing, and tigering. The cloth is then inspected, packaged, and sent to the warehouse.

Specific Observations--Stains around access doors or panels of most of the drying and curing ovens indicated that smoke could be escaping due to inadequate exhaust control. However, this suspicion could not be confirmed because most of the ovens observed were bought used and may have been stained when purchased. No smoke was observed escaping the ovens.

Sound level readings were taken around the napping lines on the first floor, at the south end of the room, with a B&K type 2203 sound level meter. The results were as follows:

<u>Location</u>	<u>dBA (slow response)</u>
General area reading taken at hearing zone height at operator's control panel	91
General area readings taken at hearing zone height along entire length of line approximately 3 feet from line	89-92
Source readings under exhaust fan for nappers located only about 9 feet above floor	87-89

These readings indicated that employees working at the napping lines may be exposed to excessive noise over an 8-hour shift. Sources of noise were the napping operation itself as well as the exhaust fans. These fans were placed rather close to the floor, presenting a greater exposure to fan noise for employees working in the area.

Some of the napping and shearing rolls were provided with slot-type local exhaust ventilation. Exposure to nuisance dust generated from airborne fiber and lint from mechanical finishing did not appear excessive.

The visiting team observed a packaging operation, in which cloth was automatically wound up on a cardboard tube fitted with box ends on both sides. Winding was activated by a foot pedal so that if injury occurred, the operator could take his foot off the pedal to stop rotation of the cloth. To bypass this safety procedure, the foot pedal was wedged in an area of the machine such that operation would be continuous. The CDS

immediately pointed this out to the supervisor, who was then to take corrective action. In addition, rotation of the box ends presented a cutting hazard. Guarding of these box ends should be considered.

(d) Woven Division

The woven division is located in a newer building and has much better incandescent lighting than do the other three divisions. Equipment used here is also newer.

(1) Dyeing

Dye liquors are prepared in a dye room on the second floor. Dye powders are scooped out of drums and weighed on non-exhaust-ventilated scales. A canopy hood provides local exhaust control for 2 uncovered mixing tanks; 10 additional mixing tanks have no such control. The prepared dye liquors are transferred directly to pads in the first-floor production area by gravity through enclosed piping.

Greige woven piece goods are received in rolls and unwound. They are processed first through an open, non-exhaust-ventilated dye pad on a continuous dye range and then through steam cans, a series of non-exhaust-ventilated water wash pads, and an exhaust-ventilated dyeing oven. After these operations, the cloth is wound up.

Some cloth is backcoated with latex foam. The latex emulsion is mixed in 55-gallon drums in the dye room on the second floor, and the drums are

transported to the backcoating operation. The latex emulsion is pumped to a foamer at the line and aerated. The resulting foam is pumped to an applicator head, which transfers it to an open trough over the cloth. The foam is then applied to the moving cloth with a doctor blade. The back-coated cloth is processed through an exhaust-ventilated oven and wound up. No cloth was being backcoated on the day of the visit.

Cloth may then pass through a wet finishing line, where a softener, crush resistance resin, or fluorocarbon soil resistance finish is applied by open, non-exhaust-ventilated pads. GTI has requested but has not received the chemical composition of these finishes. After the finish is applied, the cloth is processed through an exhaust-ventilated predrying oven, through mechanical finishing, and through an exhaust-ventilated dryer oven. Mechanical finishing includes shearing, brushing, and tigering. Fully finished cloth is inspected, packaged, stored, and then shipped to customers.

Specific Observations--The employee weighing dye powders in the dye room was wearing a surgical glove on the hand being used to scoop and transfer powders. This precaution should reduce the possibility of skin contact with toxic dye powders.

Although canopy hood exhaust ventilation was provided for two of the mixing tanks, airborne contaminants could still be drawn through the breathing zone of an employee standing under the hood. Lateral slot-type exhaust around the perimeter of each tank would offer better control.

There was little odor in the dye liquor mixing area. Exposure to air contaminants could be greater in cold weather, when the dock door at the end of the room is closed. Good dilution ventilation could then be provided by the use of mechanical makeup air and a wall exhaust fan at the end of the group of 10 additional mixing tanks.

In contrast to the other three divisions, the production area in the woven division was provided with mechanical makeup air, which should promote better dilution ventilation.

The visiting team noticed two pieces of equipment that presented mechanical hazards: an unguarded drive gear next to an elevated work platform and an inadequately guarded automatic stitcher. These hazards could cause hand injury.

A sound level reading taken approximately 2 feet from an unguarded beater on a mechanical finish line showed a noise level of 89 dBA (slow response). Although this reading does not indicate that employees working in the area are exposed to excessive noise over an 8-hour shift, it does suggest an unnecessary source of noise. If the beater were guarded, the noise exposure would probably be reduced; as an additional benefit, guarding would reduce the nip point exposure, reducing potential hand injury.

APPENDIX A
HOURLY-WAGE EMPLOYEES

DEPARTMENT	SHIFT			TOTAL	SEX	
	1st	2nd	3rd		M	F
PART TIME CLEANERS	108	2	0	200	164	25
RETAIL	1	0	0	1	0	0
PERMANENTS 1151	34	0	0	34	34	0
O.T.C.	7	0	0	7	7	0
FABRIC SORTERS	101	0	0	101	1	27
FLOCK	2	0	0	2	2	0
FLOCK QUALITY CONT.	3	0	0	3	3	0
FLOCK PROCESSING	26	26	25	77	73	5
FLOCK FINISHING	25	21	16	62	56	8
FIBER PREPARATION	13	12	11	36	35	0
FLOCK MAINTENANCE	11	0	0	11	11	0
FLOCK SAMPLE ROOM	2	0	0	2	2	0
FLOCK NAPPING	2	1	1	4	3	0
FLOCK RE-INSPECTION	13	13	13	39	18	21
TOW DYE	2	3	1	6	6	0
CLOTH ELEVATORS	1	0	0	1	1	0
CLOTH FINISH	22	22	24	68	57	12
WET FINISH	23	24	21	71	57	21
CLOTH INSPECTION	21	25	22	68	41	27
CLOTH MAINTENANCE 42	17	0	0	22	22	0
MECHANICS	4	1	1	6	6	0
CLOTH PREPARATION	12	0	0	12	11	0
PIECE DYE 2410	20	20	1	41	37	0
FUR ELEVATORS	1	0	0	1	1	0
FUR MAINT.-4170	6	2	2	10	10	0
FUR CARD-4110	6	2	5	13	13	0
LOOMWEAVE CARD-4119	13	13	13	39	39	0
FUR FINIT-4120	21	13	1	35	35	0
LOOMWEAVE FINIT-4129	10	10	10	30	28	12
FUR FINISH	1	1	1	3	121	28
FUR INSPECTION-4110	25	25	25	75	50	25
FUR REINSPECT	0	6	0	15	14	1
BLENDING	12	12	11	35	35	0
STOCK DYE	0	0	10	30	30	0
EXTRACTING & DRYING	5	11	1	17	11	0
SPECIAL EFFECTS	6	5	2	13	12	2
FUR SAMPLE	1	0	0	1	1	0
FUR MAINTENANCE	17	3	3	23	23	0
DYE HOUSE	11	3	5	19	12	0
SCREEN PRINT-08202	30	18	22	70	64	6
CHEMICAL CMPD.	1	1	0	11	11	0
JANITORIAL	8	5	0	13	13	0
SECURITY	10	0	0	10	10	0
ENGINEERING	50	0	2	61	61	0
WASTE HANDLING	0	2	5	17	15	0
VELVET CONNECTION	13	0	0	13	13	0
APPAREL SAMPLE ROOM	13	1	0	14	13	1
SLIPPING (CLOTH)	20	12	3	35	34	0
RECEIVING	18	5	5	28	27	1
SHIPPING	10	22	1	33	33	0
TRANSPORTATION	5	0	0	5	5	0
INVENTORY	8	0	0	8	8	0
HOURLY	1087	111	307			

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APPENDIX B
EMPLOYEE HANDBOOK



WELCOME TO:

Malden Mills, Inc.

AN EQUAL OPPORTUNITY EMPLOYER

46 STAFFORD STREET
LAWRENCE, MASS. 01841

HOURLY EMPLOYEE HANDBOOK

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TO: *All Malden Mills Employees*
 FROM: *Aaron Feuerstein*

Dear Fellow Employees;

It is a pleasure to welcome you to Malden Mills and to wish you success in your future with our company.

We will try our best to help you succeed by doing our share. First of all, we carefully selected you for your new job. We have planned on-the-job training for you together with timely pay increases and promotions. We are determined to continue with our policy of being one of the highest paying textile mills in the country and we are further determined to continue with our company policy of offering steady year-round work. We really want you to come to the decision that Malden Mills is the best place to work in the Greater Lawrence Area.

Our company has grown because of the excellence and quality-conscious attitude of our employees. They have given us a competitive edge by making our products the best quality and value in the industry. We know that you will want to help us to continue in this direction.

We consider it our responsibility to give you good and safe working conditions. Please rest assured that we are constantly working to improve these conditions.

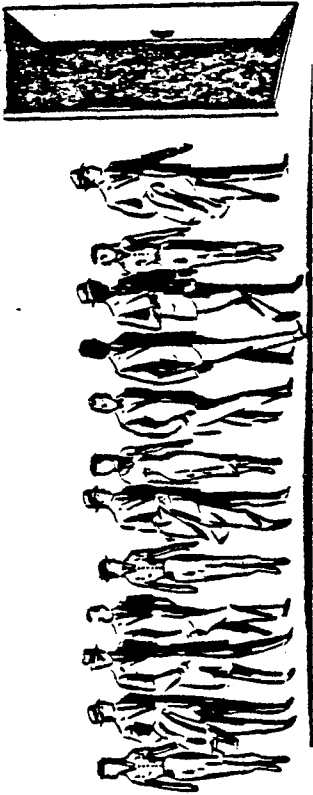
We have prepared this handbook to give you an understanding of your new company and to help you to get off to a good start in your new job.

Our sincerest wish is that you will become a lifetime employee of Malden Mills.

Sincerely,



Aaron Feuerstein
 President



EQUAL EMPLOYMENT OPPORTUNITY

Malden Mills has always been an equal opportunity employer and endorses the objectives of the President's Committee on Equal Employment Opportunity.

The Company would like to take this opportunity to reaffirm our policy to provide equal employment opportunities without regard to race, color, creed, sex, age, or national origin. This policy applies to hiring, placement, promotion, transfer, compensation and training.

The Company believes that equal opportunity is not a legal problem but is a moral concern to each one of us. To provide this climate where each person can grow to the limits of his or her talents requires the cooperation and understanding of each one of us.

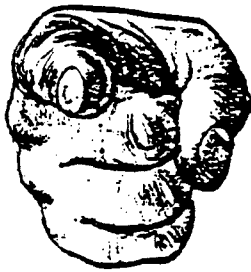
A BRIEF HISTORY OF OUR COMPANY

Malden Mills has a history of over 75 years growth and progress in the field of textiles. The original company was founded in Malden, Massachusetts, and was known as the Malden Knitting Mills. The parent company produced sweaters and bathing suits which were marketed in retail stores under various brand names.

Malden Spinning & Dyeing Company was formed in Malden, Mass., in 1923. After 32 years of development and expansion, the company found that it did not have adequate space in Malden to meet its production requirements. In May, 1956, the company moved to Lawrence, where there was adequate plant space and a pool of capable textile workers available. Starting in Lawrence with about 100 employees, the company has grown tremendously

addition to our Lawrence operation we now have plants located in New Hampshire, Maine, and Vermont.

Malden Mills has achieved a prominent position in the competitive field of pile fabrics because of its technical competence, efficient production, and its ability to keep pace with the ever-changing-world of fashion trends. By continuing to pursue a vigorous program of leadership in its field, we look to the future with confidence and fully expect that the coming years will result in continued growth and progress.



ABOUT YOU

Up to now, we have been discussing the Company. From now on we'll be talking about you and your relationship with the Company.

Before you were employed by Malden Mills, you were carefully interviewed by a member of the Personnel Department and by a supervisor in your new department. You were selected because your ability, skill, training, character, experience, and physical fitness seemed right for the job.

Now that you are on the job, you will find it helpful to know what you can expect of the company and what the company expects of you.



YOUR PAY

Malden Mills' pay structure is equal to or higher than that of our competition in our own industry, and other companies in this area. The Company strives to insure that you will be paid in proportion to your ability, your efforts, and your contribution to the success of the business.

Job Evaluation & Pay Ranges

Job evaluations, pay ranges, and performance evaluation are the tools used to determine a fair rate of pay for the job you are doing. The rate of pay for your job depends on how it compares to other jobs in the plant and to similar jobs in other companies.

For each job there is a range of pay. Where you fit in the range will depend on your performance on the job as determined during regular employee performance evaluations conducted throughout the entire company.

Overtime

You will be paid time and one half for any hours worked over forty per week as well as for any work performed on Saturday or Sunday. In addition, after you have completed your probationary period as a union member, you will be paid time and one half for all work over eight hours in one day. During busy periods, it may be necessary to work overtime to meet production requirements. You will be given as much advance notice of overtime requirements as is possible, so that you may plan accordingly.

Shift Premium

If you work on the second or third shift, you will receive a premium above your normal rate for the job. This premium is twenty (20) cents per hour for the second shift and thirty-five (35) cents per hour for the third shift.

Department Bonus

Most production departments also have a bonus, which can vary in amount depending on your department's production at the time. It is computed per hour in addition to your normal rate.

Attendance Bonus

Attendance bonuses are calculated on a half year basis, from December through May, and June through November. Each employee having perfect attendance during the six month period will receive \$75. For one day missed you receive \$50, for two days \$25, and no bonus for over two days absent. A person is counted present if he/she is there for one half of the scheduled shift.

Absences not counted against the bonus include layoff, bereavement, jury duty, military duty, vacation, injury on the job, hospitalization, or a leave of absence approved by the Personnel Department. Extended illness, and leaves of absence longer than a week will be prorated. All other absences, including illness with or without a doctor's note count against the bonus. Employees hired during a six month period are eligible for a bonus on a prorated basis. Any questions or eligibility should be directed to

Payroll Deductions

There's a difference, as you know, between what you earn and what you take home. By law, federal and state income taxes as well as social security taxes must be deducted. At your request, other amounts may be allotted for such items as Blue Cross-Blue Shield, Union Dues, United Fund, Savings Bonds or Credit Union.

The amount and purpose of each deduction is shown on the statement which accompanies your pay each week.

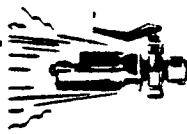
Whenever there is a change in the number of your tax exemptions, contact the Personnel Department, where you will be required to fill out a new withholding statement (W-4 Form).

Pay Day

The pay week at Malden Mills ends on Sunday night. A check for wages earned from Monday through Sunday of the preceding week will be given to you by your supervisor on your shift on Thursday.

All undistributed checks will be held in the Personnel Department on Stafford Street, and can be picked up there on Fridays after 8:30 A.M.

If you are absent and send someone in for your pay, be sure the person has a note in your own handwriting that gives the Company permission to release your check. It is also helpful to send your i.d. card as further identification.



Hours of Work

The normal work week in the company is forty hours. Most manufacturing departments operate on a three-shift basis. These departments generally operate the first shift from 7 a.m. until 3 p.m., the second shift from 3 p.m. until 11 p.m. and the third shift from 11 p.m. until 7 a.m. The work week starts with the first shift on Monday morning.

If you are absent for any reason, you must call the Guard Office at the Main Gate. If possible, call 1 hour before the start of your shift. The number is 685-6341. Your call will insure that your department will be notified of your absence.

Storm Number

In the case of a severe winter snowstorm, you can find out what work is scheduled by calling the special storm number: 685-6316.

Time Card

Your time card is a record of your hours at work. It must be punched by you and no one else. On arrival at the main gate, remove your card from the rack and punch it at the Gate Pass Clock. Carry your card with you to your department and punch it on the Department Clock. At the end of your shift reverse the procedure leaving your card in the time card rack in the Guard House.

If you fail to punch or make an incorrect punch, ask your supervisor to make the correct entry and initial your card for you.

Punching someone else's time card will be cause for immediate discharge for both parties involved.

Identification Cards

When you are hired, you are issued a card identifying you by picture, name and payroll number. This card must be carried at all times while you are on company property. If you are absent on payday you must present this card at the Personnel Office in order to obtain your check. Should you lose this card, please notify Personnel.



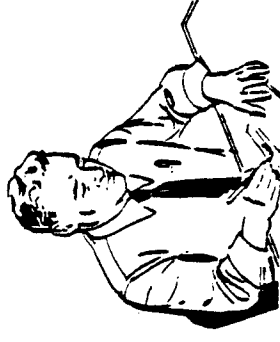
GETTING AHEAD

Whenever possible, Malden Mills follows a policy of promoting from within the company. This policy gives employees the opportunity to advance to the highest level job of which they are capable. Whether or not you profit from this policy depends mainly on your attitude and performance on your present job, your desire for future advancement, and your willingness to assume the responsibility involved.

Promotion

When an opening occurs in your department, it is filled, if at all possible, by someone from your own group. The most qualified candidate is selected for the job. If there are two potential candidates whose qualifications are equal, the one with the most seniority will get the job.

Many job opportunities in groups other than your own are also open to you. Careful consideration is given by the Personnel Department to all employees throughout the company for any openings which may arise from time to time. Based on your performance record, which is on file in the Personnel Department, candidates are selected for consideration for the position. When there is a fully qualified candidate from among our own employees, we will promote that person. In the event we do not have any fully qualified candidates, we will hire a person from outside the company. By encouraging good work on the part of each and every employee, and rewarding good performance through a policy of promotion from within, the company fosters long-term employment and growth on the part of each employee. In such a climate everybody benefits; the employees, through stable employment and personal advancement; and the company, through an efficient work force operating at a high level of performance.



Performance Review

Periodically, all employees are reviewed by their supervisors on their job performance during the past review period. The factors taken into consideration are quality and quantity of work, dependability, attendance, ability to get along with others, and advancement potential. Your rating as determined by your supervisor, is reviewed and discussed with other members of management who are familiar with your work to insure impartiality and fairness. To a large extent your promotions are dependent on the rating you attain on your performance review.

LEAVES OF ABSENCE

Jury Duty

If you are called to serve on jury duty and you are forced to be absent from work, and if you return to work upon the next work-day following the completion of your jury duty, you will be paid a sum equal to 50% of the difference between your regular week's pay (straight time for 40 hours) and the amount you were

Maternity Leave

Women who are disabled because of pregnancy receive benefits under our sickness and disability plans: for 13 weeks for union employees and 26 weeks for non-union hourly employees. Employees must return to work when the doctor certifies they are able. Requests for additional time off before or after pregnancy will be considered as other leaves of absence.

Extended Illness

If you are absent due to illness or injury for a period longer than 5 work days, you will be placed on Extended Illness Leave of Absence. This procedure will protect your seniority rights and benefits until such time as you are physically qualified to resume work.

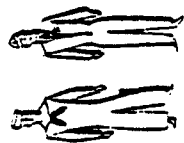
When you have recovered from your illness you must present a certificate from your Doctor to the Personnel Department stating that you are physically qualified to resume work and perform your regular duties.



Death In Family

An employee can receive *up to* three days off with pay in the event of the death of a father, mother, father and mother-in-law, brother, sister, wife, husband, child, grand-parent or step-parent. You will receive pay at your straight time rate for any work days falling within any three consecutive calendar days, provided one of such days is the day on which the funeral is held, and that you return to work upon the first work day following the leave of absence.

The term work-day excludes Saturdays, Sundays, holidays, and vacations. If a holiday occurs during the leave of absence, you will receive normal holiday pay only.



Military Service

If, as a member of a Military Reserve Unit or the National Guard, you are called upon to serve your annual tour of duty, you will receive the difference between your military pay for this period and your average straight time earnings, computed on a

Special Leaves of Absence

For special reasons, a leave of absence, without pay may be granted to an employee. If you want to request a leave of absence, talk to your supervisor who will then forward your request to the Division Manager and the Industrial Relations Department.

Whether or not your leave request is granted will depend on such factors as the reason for the request, the time period of the requested leave, the length of service with the company, your previous record and the needs of the department.

If you are granted a leave of absence, it will be for a fixed period of time. You are expected to return to work upon the expiration of your leave. Failure to do so will result in your automatic termination.



THE PERSONNEL DEPARTMENT

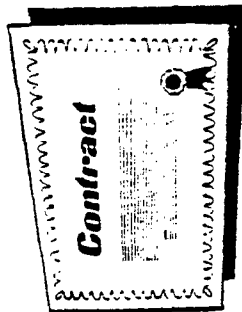
The Personnel Department has been established to offer a variety of services to each individual at Malden and to aid management in its efforts to make this a better company for which to work.

Probably the first person you met at Malden was the member of the Personnel Department who interviewed you for your job. It is his or her job to make sure that the company gets top-notch people.

All employee records are maintained by the Personnel Department. In order to insure that your records are up to date, it is important that you notify the Personnel Department at once of any changes in your address, telephone number, marital status or dependents.

The Personnel Department keeps close tabs on what other companies are doing in terms of wages and benefits. This is done to insure that pay ranges and benefits are competitive with rates for similar jobs in the area as well as to insure that you are paid fairly in relation to other jobs in the company.

The Personnel Department and the Director of Industrial Relations are ready to offer you their services whenever they are



THE UNION

For many years, Malden Mills has enjoyed a cordial and mutually beneficial relationship with the Union which represents many of our employees. It is our intention to maintain this relationship based on trust and mutual respect. The Union at the Lawrence plant is Local 311 of the International Ladies' Garment Workers' Union. This Union covers all nonsupervisory production, packing and shipping workers in the company. Those covered are required to join the Union upon the completion of their probationary period. When an eligible employee successfully completes the probationary period, he or she automatically becomes a member of the Union and the initiation fee of ten dollars is deducted from your next pay check. Monthly Union dues will also be deducted from your pay check.

Your immediate contact with the Union will be through your department union steward. He or she can fill you in on all of the information with respect to Union benefit programs, dues, etc.

The Union-Management Contract, under which we operate, sets up certain procedures for handling any problems which may arise between the employee and the company. If you have a problem which cannot be resolved to your satisfaction by your immediate superior, you should contact your Union Steward who will represent you and help in achieving a solution to the problem. Should your Steward be unable to arrive at a satisfactory solution, there are additional steps which have been provided under the Union-Management Contract to aid in arriving at the solution of the grievance. By following this established procedure, you can be sure that your problems will be settled fairly and swiftly.

UNITED FUND

Malden Mills is active in all civic programs. One of our major areas of participation is the Merrimack Valley United Fund. The company has only one fund raising drive during the year, and it is for the United Fund which has been established to help the poor and needy in the Merrimack Valley.

1. The United Fund is a charitable organization which aids not one, but seventy-three separate agencies located in the Greater Lawrence Area. Each individual agency benefits from the proceeds collected by the United Fund.
2. The United Fund is YOU —your neighbors—who volunteer their services so that less fortunate may benefit.

In other words, instead of being asked to give seventy-three times a year, we are being asked to give *once* to a fund organized and supported by your neighbors. When you were hired, you were asked to donate your "Fair Share" on a payroll deduction basis. Should you for some reason or other have been overlooked in this program, we urge you to return to the Personnel Department to enroll in the United Fund.

AT YOUR SERVICE

In line with the company's aim of making this a better place to work, emphasis is placed on providing you with good working conditions. In addition, other conveniences and services are available to you.

Cafeteria

The cafeteria is located on the second floor of the Process Building next to the Accounting Office. This cafeteria has been set up and is operated by the Seilers Company. There are hot meals prepared daily as well as a number of vending machines serving a wide variety of sandwiches, soups, salads, hot and cold drinks and desserts. There are tables and chairs provided where you may eat your lunch. Naturally, your cooperation is requested in keeping the cafeteria clean and presentable.



Vending Machines

During rest periods, vending machines come in handy. Placed at central locations throughout the plant, they dispense a variety of beverages and snacks.



Parking Lots

Parking facilities are provided by the company. If you plan to drive to work, notify the Personnel Office and you will be issued a parking sticker for your car. This sticker *is to be placed on the left side of your front bumper*. The Security Department will show you the proper lot in which to park your car.

Lockers

In some departments, locker facilities are provided at no charge to store your personal effects. In order to prevent any needless loss, it is recommended that you do not bring any valuables to work. For further information on lockers you should see your supervisor.

Company Products (Remnants)

Periodically a wide variety of fabrics made here are offered for sale to all employees at reduced rates. Such sales are called Remnants Sales and they are handled by our Retail Division. Watch the Bulletin Boards for the time and place of these sales.

Bulletin Boards

Bulletin Boards are located throughout the plant. Read them every day because they are a means of keeping up with what is going on at Malden Mills. No notices may be placed on Bulletin Boards without the approval of Management.

Sports

Your company sponsors many recreational activities for both men and women, including Bowling, Golf, Basketball and Softball Teams in the local leagues comprising teams from the Greater Lawrence Area. We encourage all those interested in playing on these teams to watch for notices on the Bulletin Boards and to sign up to play with these teams.

YOUR FRINGE BENEFITS

Working together, your company and union provide you with an excellent fringe benefit package. It is our intention to provide you with benefits equal to or better than those of other companies in this area.

Blue Cross - Blue Shield

Blue Cross & Blue Shield benefits are available at group costs to our employees. You must apply at the Personnel Department

within sixty days from the date of hire or be forced to wait until Blue Cross announces that applications may be accepted into the group. This announcement comes but once a year, so in order to insure proper coverage, we urge you to apply within sixty days.

Union Health and Welfare Fund

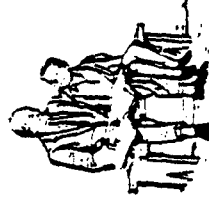
The company pays a percentage of your gross earnings into the Union Health and Welfare Fund. From this fund the Union provides certain health fund benefits for eligible union employees. These benefits include sick benefits, hospital benefits, surgical benefits, etc. The Union has established certain rules governing eligibility for and limitations of the benefits. It is suggested that you contact your Union Steward to obtain current information with respect to these benefits.

Life Insurance

The company provides life insurance coverage at no cost to you. Union employees receive a \$2,000.00 policy, and non-union hourly employees receive a \$3,000.00 policy. It goes into effect 60 days after your date of hire.

Disability Benefits

Employees who are disabled due to illness or accident may receive compensation for time missed under the company's disability plan. Union employees receive \$45.00 per week for a maximum of 13 weeks. Non-union hourly employees may receive \$90.00 per week for a maximum of 26 weeks. In the event of illness there is a waiting period of 7 days. No waiting period is required in the event of an accident. Any questions pertaining to illness or accident claims should be directed to the Personnel Office.



Retirement

The company pays a percentage of your gross earnings into the union retirement fund. From this fund the union has established a retirement program designed to provide retired workers with an income to supplement social security benefits. For complete details governing this fund, it is suggested that you contact your Union Steward.

Workmen's Compensation

While you are employed...

that you will be paid for time lost, as defined by law, caused by injuries received while you are on the job. If you receive an injury on the job, even a slight one, be sure to report it immediately to your foreman.



Vacations

During the first two weeks of July, the company closes down its operations to enable our employees to take their annual vacation. All employees, except for a minimum skeleton crew required for maintenance and repair of equipment, are expected to take their vacation during the plant shutdown.

If you are a member of the Union, the company contributes a percentage of your gross earnings to the Union Health and Welfare Fund. From the money in this fund, the Union distributes vacation checks to eligible Union employees *prior* to the plant shutdown.

Vacation benefits amount to 4% of gross earnings of the previous year for employees with more than a month of service but less than five years service in the company. For employees with between five years and ten years of service, the vacation benefits are 5% of the previous year's gross earnings. For those employees with ten or more years service, vacation benefits are 6% of the previous year's gross earnings.

Eligible employees not covered by the Union Contract will receive the same vacation benefits directly from the company immediately *prior* to the plant shutdown.



Holidays

The Company observes nine paid holidays per year. These include New Year's Day, the third Monday in February, Good Friday, Memorial Day, Labor Day, Veteran's Day, Thanksgiving Day, Christmas Day, and a *Floating Holiday* (an additional day designated by the Company). In order to qualify for holiday pay, you must have completed your probationary period and you must work the scheduled work days *before and after* the holiday, unless such absence is for justifiable cause.



Tuition Reimbursement

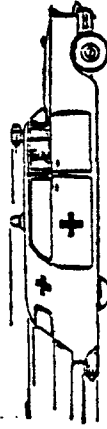
The Company has a tuition reimbursement plan that is open to

all full-time, permanent employees. The plan provides for 100% reimbursement of tuition expenses for job-related courses that are taken by the employee.

Please contact the Training Department for detailed information concerning this plan.

HEALTH AND SAFETY

As part of the company's personnel policy of the right person for the right job, a pre-employment physical examination is required. This determines your physical fitness for the job you were hired to do and is a precaution against any possibility of your job injuring your health. Taking a continued interest in you, the company provides a year-round safety program and a dispensary to serve you.



Safety

Statistics show that you are safer at work than when you are at home, but everyone must guard against accidents in an industrial plant. Management tries to make this plant a safe place for you to work. You can do your part by observing these common sense safety rules:

1. Never operate a machine or device without authorization.
2. Do not wear loose, or baggy clothing, neckties or rings around moving machinery.
3. Do not oil, clean or repair machinery in motion.
4. Leave electrical repairs to the electrical crews.
5. Never remove a guard without permission.
6. Keep aisles and passages clear.
7. Report any oil or wet spots on the floor so that it may be cleaned up and prevent accidents.
8. Walk, don't run.
9. An air hose can be a useful tool or a dangerous weapon. Use it wisely.
10. Smoke only in authorized areas.
11. Avoid horseplay, dangerous both to you and your fellow worker.

12. Keep your area clean. Do not spit on floor or carelessly dispose of lunch wrapping, bottles, or paper cups. Use receptacles provided.
13. Don't carry an open knife in your clothing.
14. If you use hand tools, keep them in good repair.
15. When lifting, use your leg muscles and not your back.
16. Do not stand on boxes or moving cans. Use ladders provided.
17. Do not start up any machine until you are certain there is no one working on it.
18. Report *all* accidents to your supervisor.

Safety Shoes

In order to prevent injury to the feet, it is recommended that employees wear safety shoes while at work. The Security Department has available a wide variety of safety shoes which may be ordered at cost. To make it easier to purchase these shoes, arrangements can be made for payment through payroll deductions. To order safety shoes, visit the Security Department between 8:30 a.m. and 2:30 p.m. The Company pays the full cost of safety shoes for employees who are required to wear them. No sneakers may be worn in production areas.



Safety Committee

Safety Committees have been established in each department. Their function is to act as watchdogs and to report any unsafe conditions or practices. The Committee meets periodically (at least once a month) to report and discuss unsafe conditions. We encourage all employees to support these committees and to serve on them, if the occasion arises.

Accidents

If you suffer an accident no matter how slight, report it *at once* to your supervisor who will take the necessary action to have the injury treated, and will take steps to see that any conditions which may have caused the accident are corrected.

YOUR SECURITY

You will find that the company works to strengthen your financial security. Every effort is made to provide steady year-round employment. A firm seniority policy has been put into effect. Your ability to absorb hospital and medical bills is strengthened by Blue Cross & Blue Shield as well as by Union Health Fund and company paid benefits.

Seniority

The company's policy of seniority is administered in the interests of all employees. It is geared to give consideration to your length of service in a given department and your job classification.

After you have completed your probationary period, you are given seniority status, computed on the basis of your continuous service in the department from the date you were hired. Any unpaid absences of thirty days or more, for reasons other than illness, are deducted from your length of service rating.

In the event of layoffs, or recalls from layoffs, selection of employees to be affected will be made on the basis of departmental seniority and job classification.

You will not lose your seniority unless you resign, are discharged, fail to return from a leave of absence when it expires, fail to respond to a layoff recall within three working days or are laid off for a period over one year.

IN CONCLUSION

On the foregoing pages we have outlined some of the responsibilities and benefits which are yours as a new member of the Malden Mills Team. We feel that a well-informed employee is a happy and successful one.

To the people with whom you come in contact, either on or off the job, you are Malden Mills. It is hoped that your attitude and actions will reflect favorably on your Company.

You can see that we have a stake in you as a well informed, conscientious Malden employee. The more you know about us, how we operate, and what we expect from you, the more successful will be our association together. Through a happy Employee-Company partnership, an efficient business team is formed. We at Malden Mills have a good team. You are now a member of it. Good luck and best wishes for the success that we

COMPANY RULES

Impartial and reasonable rules are essential to the successful operation of any organization. The rules established by Malden Mills are for the benefit of the company and its employees. Violations of certain rules will result in warning slips whereas others will result in immediate suspension and/or discharge.

GROUP I

WARNING SLIPS:

An employee will be subject to discharge if he/she receives three (3) warning notices within any period of twelve (12) consecutive months within one of the following four categories. A warning notice will be removed from an employee's file after a period of twelve (12) months. Violation of the following company rules results in a warning slip:

A. **AMOUNT OF WORK.** Each employee is expected to do his/her share of work. Examples of violations of this rule include:

1. Repeated failure to be at work station ready to begin work at starting time.
2. Stopping work before the time specified.
3. Loitering or loafing during working hours.
4. Leaving own department or plant during working hours without permission of supervisor.
5. Repeated absence and/or tardiness.
6. Reporting for work under influence of liquor and alcoholic beverages or illegal drugs.
7. Taking an excessive amount of time for lunch breaks or coffee breaks.

B. **QUALITY OF WORK.** Each employee is expected to do his/her share to ensure that high quality standards are maintained. Examples of violations of this rule include:

1. Neglect and mishandling of a machine or other equipment.
2. Damage to materials or fabric due to carelessness.
3. Failure to turn in reports whenever required.
4. Off quality resulting from failure to follow a quality procedure.

C. **SAFETY AND HOUSEKEEPING.** Each employee is expected to do his/her share to maintain safe and pleasant working conditions. Examples of violations of this rule include:

1. Creating or contributing to unsanitary conditions.
2. Violation of safety rules or company safety practices.
3. Horseplay or throwing things.

D. **UNAUTHORIZED ACTIVITIES.** Other company rules are necessary for good working conditions. Examples of violations include:

1. Posting or removal of notices or signs.
2. Writing in any form on bulletin boards or company property.
3. Obscene, abusive language and/or malicious gossip.
4. Threatening, intimidating, coercing any employee on the premises, at any time for any purpose.
5. Gambling, certain kinds of lotteries and other games of chance on company property at any time.
6. Organizational activities (including soliciting contributions) for any purpose on company time without the permission of management.

DISCIPLINE PROCEDURES FOR GROUP I:

1st offense: written warning 2nd offense: written warning
3rd offense: suspension and/or termination

NOTE: Any 3 warnings for Category A, Amount of Work, within a twelve (12) month period can result in termination. Likewise any 3 violations in Categories B, C, or D can result in termination. Violations from different categories are not added together. Any person who disagrees with a warning can contest it through their Union Steward or the Industrial Relations Department.

GROUP II

IMMEDIATE SUSPENSION AND/OR DISCHARGE:

The following offenses shall be subject to immediate suspension and/or discharge and are not subject to the above warning notice procedure:

1. Fighting on company property.
2. Bringing in or drinking alcoholic beverages on company property.
3. Bringing in or taking illegal drugs on company property.
4. Sleeping during working hours.
5. Punching someone else's time card.
6. Willful destruction of company property.
7. Stealing.
8. Falsification of application for employment.
9. Smoking in unauthorized areas.
10. Insubordination.
11. Deliberate restriction of output.
12. Possession of weapons on company property.
13. Participation in unlawful strike.
14. Willfully causing safety guards or security devices to be inoperative.
15. Falsification of production records.

DISCIPLINE PROCEDURES FOR GROUP II:

1st offense: immediate suspension and/or termination

APPENDIX C
SUPERVISOR'S MANUAL, CHAPTER III

A. SAFETY AND ACCIDENT REPORTING

1. Accidents

All accident (as required by law) must be reported to Personnel using form #767 x 7730 (Malden Mills Accident Report) of which a sample is included on page 62A. Good, prompt documentation and action to prevent similar occurrences in the future is essential. The dispensary is open and staffed by a nurse from 8:30 a.m. to 4:30 p.m. Any person who is injured should be sent to the dispensary for treatment. If the injury is serious, the employee will be taken to our plant doctor or a local hospital for treatment.

Plant security personnel (guards) have been trained in the use of first aid. Should an accident occur between the hours of 4:30 p.m. and 8:30 a.m., call the guard house at the main gate. The guard on duty will treat the injury or send the employee to the hospital for treatment, if in his judgement the injury is serious. DO NOT attempt to treat the injury yourself unless it is definitely minor in nature. The guard will complete a report which is given to the nurse in the morning.

2. Safety Committees

Safety Committees, chaired by the supervisor, have been established in each department. Their function is to act as watchdogs and to report any unsafe conditions or practices. They meet periodically (at least once a month) to report and discuss any such situations. Their recommendations are to be taken seriously and followed up diligently.

IMPORTANT: Each department has a trained first aid man, know him.

B. GENERAL SAFETY INSTRUCTIONS FOR EMPLOYEES

It is the policy of Malden Mills to provide an environment where all of its employees enjoy safe and healthful working conditions. Safety is the responsibility of both employer and employees. The company has the responsibility to maintain the safety and health standards established by federal and state law. Each employee has the duty of complying with these safety and health standards and all rules and regulations which relate to his/her own conduct.

The following sections enumerate general safety rules of the whole company as well as specific rules relating to certain departments.

B. GENERAL SAFETY INSTRUCTIONS

1. In General

- a. Learn the right way to do your job. That will be the safe way. If you are not sure you thoroughly understand the job, ask your supervisor for further instruction.
- b. Report all injuries promptly for treatment. Cuts or scratches can become infected unless properly cared for.
- c. Jumping from an elevation such as a table, bench or platform is liable to result in serious injury. Don't do it!
- d. Obey warnings on tags and signs. They are posted to point out hazards. Tagged machinery must be cleared with your foreman before operating.
- e. Practical jokes and horseplay lead to accidents; such actions are forbidden in the plant.
- f. All employees are urged to make suggestions which will assist in safe performance of work, and to bring to the supervisor's attention any unsafe condition found in the plant.
- g. Use safety glasses or goggles where applicable; wear your safety shoes.

2. Machines

- a. Unless you have been taught how to operate a machine, stay away from it.
- b. Stop machines before oiling or cleaning; never attempt to make adjustments or clear a jam while the machine is running. Use the safety switch provided to prevent accidental starts. Tag this switch indicating you are working on it.
- c. After making repairs or adjustments to machine, replace guards before machine is started.
- d. When you find it necessary to leave the machine to which you are assigned, shut it down; if machine is in-operable shut off the safety switch.

- e. Before starting to work on a machine which has a dangerous point of operation, make sure the guard is in place and properly adjusted. Make sure safety switches are in the off position before starting work on equipment. Tag the machine!
- f. Guards are installed for your protection; use them.
- g. If an abrasive wheel is provided with a glass shield, see that the shield is clean and in proper position before you do any grinding. Where there is no glass shield, use your goggles.
- h. When an abrasive wheel vibrates or wobbles, shut it down and report its condition to your supervisor.
- i. Remove chuck wrenches from chucks immediately after wrench is used.
- j. Remove chips from around moving machine parts with a brush, not with your hand.

3. Small Tools

- a. Use only tools that are in good condition.
- b. Burred or mushroomed heads on old chisels, star drills hammers, etc., must be dressed off before using.
- c. Replace splintered, broken, rough or loose tool handles before using tools.
- d. Equip files with handles before using them.
- e. Wrenches with sprung or spread jaws must not be used.
- f. Be sure jaws of Stillson and monkey wrenches are adjusted to fit tightly the nut, bolt, or pipe before strain is put on the wrench. Use only correct size end or box wrenches.
- g. A hardened hammer must not be used to strike a hardened tool or machine part. Use a hammer made of soft metal, rawhide or similar material to prevent steel particles from flying.
- h. Keep the points of screwdrivers square and even; do not use screwdrivers with broken or rounded points.
- i. When using a screwdriver, place work on bench or some solid object; never hold it in palm of hand.

- j. Always use the proper tool for a job; for example, don't use a wrench as a hammer or a screwdriver as a chisel.
- k. Sharp edge tools should be stored in a safe place. When such tools must be carried about, cover points or sharp edges with shields; never carry unshielded tools in your pockets.
- l. Always use a holder when holding a chisel or drill for sledging.

4. Ladders and Scaffolds

- a. Ladders with broken, split or otherwise defective rungs or siderails must not be used; report them to your supervisor.
- b. Be sure a ladder is firmly set before you climb it; if necessary, block it at bottom and lash it at top. The foot should be set one-fourth of the ladder length away from wall against which ladder is leaning.
- c. Leaning sideways or over-reaching, while working from a ladder, may cause the ladder to slip or you to lose your balance.
- d. Always open or spread step-ladders and A-type ladders fully; also be sure spreaders are in place before you attempt to work from the ladder.
- e. Do not place tools on top of step ladders
- f. Step ladders or scaffold planks should not be painted as defects may be covered by paint. Use good grade of spar varnish or a mixture of linseed oil and turpentine to preserve the wood.
- g. Step ladders must not be used as straight ladders; they are not designed for this purpose
- h. Planks and all other material used in building scaffolds must be sound and free from knots; be sure a scaffold is strong enough to support the load it is supposed to bear before using it.
- i. When going up a ladder, always look up to make sure you will not bump your head.
- j. When working in immediate area beneath ladders, wear hard hats (helmets) provided by the company.

5. Order and Cleanliness

- a. Keep aisles and work places clear; keep tools or materials neatly and securely piled and so located that people passing will not be injured.
- b. Store waste, oily rags and other flammable material in receptacles provided for that purpose. A bad fire may put you, and others, out of work.
- c. Keep exits clear at all times. Fire doors should never be blocked or made inoperative.
- d. Keep stairways and landings clear and free from material or dirt.
- e. Scrap from machines must not be allowed to accumulate on the floor. Clean it up regularly.

6. Lifting

- a. Be sure you have good footing; then lift S-L-O-W-L-Y.
- b. When lifting a heavy object, shift the load or your body until you are in position to make a straight lift. Never lift while in an awkward position.
- c. When making a lift from the floor, keep your arms, and back as straight as practicable, bend your knees, then lift with the powerful muscles in your legs.
- d. When it is necessary to lift from an elevation, such as a bench, table or shelf, bring the object as close to your body as possible, hug it to you, keep your back straight and lift with your legs. Ask for help when, excessive weight, bulk or shape is to be moved, the load can't be handled safely by one person.

7. Eye Protection and Respirators

- a. Your eyes and health are priceless. Exposing yourself to the loss of either is needless and foolish.
- b. Proper type eye protection must be worn when grinding, where the wheel is not equipped with a spark shield, and when chipping, handling acids or caustics; or when entering areas where there is danger of flying particles entering the eyes such as when using compressed air to clean chips from machines.

- c. Shields should be used, where necessary, to protect other persons from flying chips.
- d. Oxy-acetylene or electric arc operators must wear welding goggles or face shields when engaged in welding or cutting operations. Protective shields should be used to stop harmful rays when this work is performed near other employees.

8. Safe Clothing

- a. When working near a machine, wear short sleeves.
- b. When working on or near machinery don't wear torn or loose clothing or gloves; keep outer garments buttoned or otherwise fastened. Keep dangling wiping rags and waste out of pockets.
- c. Remove a flowing necktie before starting to work on a machine.
- d. Remove finger rings and wrist watches before starting work. They may look good but wearing them while you work is dangerous.
- e. Protect your feet by keeping your shoes, especially the soles, in good repair. Don't wear soft soled shoes sandals or sneakers in work places. Wear shoes with metal inserts in the toe caps, and provided with non-skid soles (safety shoes) where there is danger of foot injuries or slips.
- f. Wear gloves or hand pads when handling rough material.
- g. Avoid wearing oil soaked clothing that may catch fire. Avoid carrying oily waste in pockets.
- h. Do not wear flare-bottomed trousers near moving machinery.

9. Elevators

- a. Wait until the car has stopped and is level with landing before entering or leaving.
- b. Move loads on or off the elevator only after car is stopped and level with floor.
- c. Make sure gates are in place.

10. Electricity

- a. Unless it is part of your regular work, do not attempt to repair or adjust any electrical equipment.
- b. Treat all electric wires as live wires. Do not touch dangling wires; report them immediately to your foreman.
- c. Ground wires leading from electrical apparatus must not be disconnected or broken.
- d. When working with electric portable tools be sure the tools are properly grounded. Check the cords for broken insulation. As an added precaution, use rubber overshoes in damp or wet locations.
- e. Before using an extension cord make sure there are no breaks in the insulation and the plug, socket and lampguard are in good condition and a ground prod is provided.
- f. Do not attempt to repair electrical equipment unless you are an electrician. Kill any circuit before attempting to work on it. Voltages even lower than 110 will cause death under certain conditions.

11. Hand Trucks

- a. Report hand trucks with broken wheels, splintered handles or other defects, to your supervisor.
- b. Watch where you are going when pushing or pulling hand truck and slow down at corners.
- c. Load the truck so you can see over and around the load.
- d. Allow clearance for your hands when moving through doorways or past other objects. Use the truck handles.
- e. Always park trucks at a spot where people will not stumble over them; leave handles in a vertical position.
- f. Hand truck operators should wear hard toe safety shoes.

REMEMBER: "Carelessness has no alibi"

C. OSHA Requirements for Forklift Trucks and Drivers

General Requirements

1. Modifications and additions which affect capacity and safe operation cannot be performed without manufacturers prior written approval. Capacity and instruction plates must be changed.
2. All nameplates and markings are to be maintained in a legible condition.
3. High lift rider trucks shall be fitted with an overhead guard unless operating conditions do not permit.
4. Controlled lighting of adequate intensity should be provided in operating areas.
5. Replace parts with parts of equivalent safety features.
6. Any changes in truck must be done by and authorized by the manufacturer.
7. Keep truck in clean condition, free from lint, excess oil and grease. Use noncombustible agents for cleaning trucks.
8. Use airhose with special attachment for blowing lint from around radiator. Blow from inside of motor facing out.
9. When antifreeze is used, use only glycol base.

Fork Truck Rules

1. No untrained operators operating truck.
2. No unauthorized operator operating truck.
3. Allow no one to stand or pass under elevated truck.
4. No riding on truck if safe space is not provided.
5. No arms or legs between uprights.
6. No arms or legs outside running lines of truck.
7. Follow regulations concerning unattended trucks.
8. Block truck wheels if parked on an incline.
9. Maintain safe distance from edges of platforms, ramps, etc.
10. Check chocks on trucks, trailers, and freight cars.

11. Don't open or close freight doors with trucks.
12. Check truck, plant, trailer, and freight car floors before driving onto.
13. Allow sufficient headroom under overhead installations, lights, pipes, sprinkler systems, and the like.
14. Use overhead guard on truck.
15. Use a load backrest extension on truck.
16. Observe all plant traffic regulations.
17. Maintain 3 truck length limit behind other trucks.
18. Keep truck in control at all times.
19. Yield right of way to all emergency vehicles.
20. Don't pass other trucks traveling in the same direction, at intersections or blindspots.
21. Slow down and sound horn at all blindspots.
22. If load obstructs forward view - travel in reverse.
23. Look in direction of travel.
24. Keep a clear view of path of travel.
25. Ascend or descend grades slowly.
26. If grade on excess of 10%, travel with load upgrade.
27. Unloaded trucks travel with forks downgrade.
28. On all grades, travel with forks raised to clear road, and tilted back.
29. Travel at a safe speed for existing conditions.
30. No stunt driving or horseplay.
31. Slow down for wet or slippery roads.
32. Secure dockboards or bridgeplates before driving onto them.
33. Never exceed rate of capacity of dockboards or bridgeplates.
34. Drive slowly over dockboards or bridgeplates.
35. Enter elevators slowly and squarely.

36. On elevators, neutralize controls, shut off power, and set brakes.
37. Motorized hand trucks enter elevators load end forward.
38. Motorized hand trucks enter all confined areas with load end forward.
39. Motorized hand trucks steer with operator on floor, not on truck in confined areas.
40. Avoid running over loose objects on floor.
41. Use smooth sweeping motion on steering when making turns.
42. Always turn steering at moderate rate.
43. Only handle safely arranged, stable loads.
44. If cannot center an off-center load, use caution.
45. Only handle loads within rated capacity of truck.
46. Be careful with load stability when adjusting high loads.
47. Use particular care when handling loads using attachments.
48. Put forks under load as far as possible and tilt to stabilize load.
49. Use extreme care when tilting a load during high tiering.
50. All operators shall complete a maintenance check list daily before using truck.
51. Don't tilt a load forward when elevated except to pick up.
52. Elevated loads shouldn't be tilted forward except when load in deposit position over rack of stack.
53. When stacking or tiering, use only enough backward tilt to stabilize the load.
54. Don't operate or repair a defective truck.
55. Don't fill fuel tanks with engine running.
56. Wipe up spilled gas or oil.
57. Don't operate truck with leak in fuel system.
58. Don't use flames around gas or batteries.
59. Show respect for all materials handled by driving with care.

60. Show respect for all pedestrians by driving with care.
61. Show respect for all buildings, pallets, machinery, equipment, trucks and other property by driving with care.
62. Don't use trucks as personnel elevator.
63. Don't ram into elevators, stacked goods, walls, etc.
64. Don't nudge stacked goods with forks or rear of trucks.
65. Don't turn on an incline.
66. Don't use reverse as a brake.
67. Report all unsafe, defective trucks to supervisor.
68. Don't drive with wet or greasy hands.
69. Don't push any material with forks.
70. Give pedestrians the right of way.

D. Clothing and Safety

1. No shirt tails are to hang out.
2. No flowing neckties are allowed near moving machinery.
3. Sneakers and open-toed sandals, etc. are not permitted at the mill. Supervisors are to send employees home who are not wearing appropriate footwear to obtain proper footwear before beginning work.

E. SAFETY GLASS POLICY

I. Purpose:

In order to protect the employees eyes while working in high risk operations for eye injuries, Malden Mills will provide safety glasses as per this policy. This policy supercedes all other policies, agreements, and/or understandings.

II. Who Must Wear Safety Glasses:

All employees working at high risk for eye injury operations, (as defined by Malden Mills) must wear safety glasses as a condition of employment. This list is posted within the department involved, personnel and the main gate.

III. Adherence to Policy:

Those employees who work at defined operations and do not wear safety glasses provided them, will be disciplined:

First Offense - Verbal warning, given glasses to wear

Second Offense - Written warning and/or suspension

Third Offense - Termination

Note: One time offenses that do not recur in 12 months, will be removed from Personnel records.

IV. Distribution of Safety Glasses:

All employees who work in high risk operations will have their eyes examined by the nurse. If their eyesight is 20/20 or better, the employee will be fitted for a pair of free safety glasses by the nurse. If the person's eyesight is less than 20/20, the employee will be sent to an optometrist for a complete eye examination, with correction to 20/20 and fitting of prescription safety glasses.

V. Costs

A. Non-Prescription Glasses

The first pair of non-prescription safety glasses will be provided free of charge. If the pair of safety glasses is lost, the cost of the lost glasses will be deducted from the next week's pay, and a replacement pair provided. When the lens is scratched, pitted, and/or no longer serviceable a replacement pair will be provided. If the glasses are broken on the job, the broken safety glasses must be returned to the nurse, and another pair will be provided free of charge.

B. Prescription Safety Glasses

The initial eye exam given by the nurse is free of charge, but the cost of the eye examination at the optometrist is borne by the employee. The cost of the safety glasses with a standard frame, will be paid for by Malden Mills. Bifocals, tinted lenses, fancy frames, etc. will not be included, and will be paid for by the employee. If the glasses are broken on the job, the broken safety glasses must be turned in to the Director of Personnel to see if another pair should be provided free of charge. If new glasses are needed, an authorization slip should be obtained from the nurse and signed by the supervisor.

VI. Other Employees

Employees who do not work in high risk operations, will be provided safety glasses per the above policy if they desire them.

VII. Record Keeping:

- A. The nurse will maintain health records for each employee including the date of exams, size of frames, prescription, etc.
- B. The cost of safety glasses will be charged back to the employees home department.

VIII. Additional Eye Protection:

- A. Safety Goggles (company provided) will be worn in place of safety glasses while grinding, sanding, chipping, or using air hoses for cleaning.
- B. Chemical Safety Goggles (company provided) will be worn in addition to safety glasses while pouring, mixing, or handling liquids, powders, etc.

Note: Shatter proof glasses are not a substitute for safety glasses.

F. SAFETY SHOE POLICY

The following is the policy for supplying safety shoes and rubber boots to employees in all departments of Malden Mills.

1. For employees working in normally wet areas, the basic rubber steel-toed boot will be issued at no cost to the employee. The company will supply a maximum of two pair per year. If an employee cannot wear rubber boots, leather boots will be issued, cost of which will be divided equally by the employee and the company. Heavy duty rubbers to go over these shoes will be provided at no charge to the employee.
2. For employees working in all other "eligible" areas, the basic steel-toed leather safety boot (Knapp K.40) will be issued, with the company dividing the cost equally with the employee. At this time, the cost of this shoe is \$30.50. These boots will be issued at a maximum of twice a year, with the old pair being returned.
3. Before shoes can be ordered, a signed authorization slip must be submitted. (Sample Attached) These slips must be approved by an authorized manager which each Division should designate.
4. Eligible areas are to be determined by each Division Manager.

Each department is responsible for maintaining its own records.

24J

S A F E T Y S H O E S

NAME _____ DATE _____

DEPARTMENT _____ CLOCK NUMBER _____ SHIFT _____

TYPE OF SAFETY SHOE:

PLEASE CHECK ONE: LEATHER BOOT _____ RUBBER BOOT _____ RUBBERS _____

SIZE _____ WIDTH _____

FIRST PAIR: PLEASE CHECK ONE: YES _____ NO _____

APPROVED BY _____

AUTHORIZED SIGNATURE

APPENDIX D
SUPERVISORY ACCIDENT INVESTIGATION FORM

MALDEN MILLS
ACCIDENT REPORT

62A

Name of injured worker: _____ Dept. _____

Address: _____

Date of Injury: _____ 19____ Hour of day _____ A.M. _____ P.M. _____

Occupation of Injured at time of Accident: _____

How and where accident occurred: _____

Name of Physician: _____

Name of Hospital: _____

Time Lost: _____

Name of persons who witnessed accident:

1. _____ 2. _____ 3. _____

Describe Injury _____

What unguarded, defective or otherwise unsafe machine, tool, or other
object material or condition caused or contributed to the accident? _____

What unsafe act, if any, was committed? _____

What has been done to prevent such accidents? _____

What do you recommend to prevent similar accidents? _____

APPENDIX E
OSHA SAFETY AND HEALTH STANDARDS DIGEST

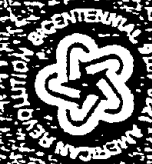
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General Industry



OSHA Safety and
Health Standards Digest

U.S. Department of Labor
Occupational Safety and
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(Revised) June 1976

OSHA 2201

ABOUT THE DIGEST

The digest of General Industry safety and health standards contained in this booklet was compiled to aid employers, supervisors, and safety personnel in their efforts toward achieving voluntary compliance with OSHA standards at the workplace.

Although the digest does not contain all the General Industry safety and health standards, those selected cover approximately 90 percent of the basic applicable standards and are expressed in simple terms.

In addition, in the back of this booklet, a *Standards Source* section is included, keyed to the numerical designations for each of the standards listed in the digest.

Remember . . . This booklet is only a digest of basic applicable standards. The digest should in no way be considered as a complete substitute for any provisions of the Occupational Safety and Health Act of 1970, or for any standards promulgated under the Act.

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1. ABRASIVE BLASTING

- a. Blast cleaning nozzles shall be equipped with an operating valve which must be held open manually (deadman control). A support shall be provided on which the nozzle may be mounted when not in use.
- b. The concentration of respirable dust or fume in the breathing zone of the abrasive-blasting operator or any other worker shall be below the levels specified in 1910.93.
- c. Blast-cleaning enclosures shall be exhaust ventilated in such a way that a continuous inward flow of air will be maintained at all openings in the enclosure during the blasting operation.
- d. The air for abrasive-blasting respirators shall be free of harmful quantities of contaminants.

2. ABRASIVE GRINDING

- a. Abrasive wheels shall be used only on machines provided with safety guards with the following exceptions:
 - Wheels used for internal work while within the work being ground;
 - Mounted wheels, used in portable operations, 2 inches and smaller in diameter; and
 - Type 16, 17, 18, 18R, and 19 cones, plugs, and threaded hole pot balls where the work offers protection.

6. AISLES AND PASSAGEWAYS

- a. Where mechanical handling equipment is used, sufficient safe clearance shall be allowed for aisles at loading docks, through doorways, and whenever turns or passage must be made.
- b. Aisles and passageways shall be kept clear and in good repair with no obstructions across or in aisles that could create hazards.
- c. Permanent aisles and passageways shall be appropriately marked.

7. BELT SANDING MACHINES

- a. Belt sanding machines shall be provided with guards at each nip point where the sanding belt runs onto a pulley.
- b. The unused run of the sanding belt shall be guarded against accidental contact.

8. BOILERS

Boilers are not covered by present OSHA standards. These are good practice procedures and might be incorporated into future OSHA standards.

- a. Boiler inspection and approval, on an annual basis, by a recognized boiler inspection service is satisfactory evidence of acceptable installation and maintenance.
- b. A valid boiler inspection certificate, bearing the signature of the authorized inspector and the date

of the last inspection, shall be conspicuously posted.

- c. All boilers shall be equipped with approved-type water column, gauge glass, and try cocks. Gauge glasses and water columns shall be guarded to prevent breakage.

9. CALENDERS, MILLS AND ROLLS

- a. A safety trip-type bar, rod, or cable to activate an emergency stop switch shall be installed on calenders, rolls, or mills to prevent persons or parts of the body from being caught between the rolls.
- b. A fixed guard across the front and one across the back of the mill, approximately 40 inches vertically above the working level and 20 inches horizontally from the crown face of the roll, should be used where applicable.

10. CHAINS, CABLES, ROPES, HOOKS, ETC.

- a. Chains, cables, ropes, slings, etc., shall be inspected daily, and defective gear shall be removed and repaired or replaced.
- b. Hoist chains and hoist ropes shall be free from kinks or twists and shall not be wrapped around the load.
- c. All U-bolt wire rope clips or hoist ropes shall be installed so that the U-bolt is in contact with the dead end (short or nonload carrying end) of the rope. Clips shall be installed in accordance with

the clip manufacturer's recommendation. All nuts or newly installed clips shall be retightened after 1 hour of use.

11. CHIP GUARDS

Protective shields and barriers shall be provided, in operations involving cleaning with compressed air, to protect personnel against flying chips or other such hazards.

12. CHLORINATED HYDROCARBONS

a. Carbon tetrachloride or other chlorinated (halogenated) hydrocarbons shall not be used where the airborne concentration exceeds the Threshold Limit Value (T.L.V.) listed.

b. Degreasing or other cleaning operations involving chlorinated hydrocarbons shall be so located that vapors from these operations will not reach or be drawn into the atmosphere surrounding any welding operations.

13. COMPRESSED AIR, USE OF

Compressed air used for cleaning purposes shall not exceed 30 psi when the nozzle end is obstructed or dead-ended, and then only with effective chip guarding and personal protective equipment.

14. CONVEYORS

a. Conveyors installed within 7 feet of the floor or walkway shall be provided with cross-overs at aisles or other passageways.

- b. Where conveyors 7 feet or more above the floor pass over working areas, aisles, or thoroughfares, suitable guards shall be provided to protect personnel from the hazard of falling materials.
- c. Open hoppers and chutes shall be guarded by standard railings and toeboards or by some other comparable safety device.

15. CRANES AND HOISTS (Overhead and Gantry)

a. All functional operating mechanisms, air and hydraulic systems, chains, rope slings, hooks, and other lifting equipment shall be visually inspected daily.

b. Complete inspection of the crane shall be performed at intervals depending on its activity, severity of service, and environment.

c. Overhead cranes shall have stops at the limit of travel of the trolley. Bridge and trolley bumpers or equivalent automatic devices shall be provided. Bridge trucks shall have rail sweeps.

d. The rated load of the crane shall be plainly marked on each side of the crane, and if the crane has more than one hoisting unit, each hoist shall have its rated load marked on it or its load block, and this marking shall be clearly legible from the ground or floor.

16. CYLINDERS, COMPRESSED GAS, USED IN WELDING

- a. Compressed gas cylinders shall be kept away from excessive heat, shall not be stored where they might be damaged or knocked over by passing or falling objects, and shall be stored at least 20 feet away from highly combustible materials.
- b. Where a cylinder is designed to accept a valve protection cap, caps shall be in place except when the cylinder is in use or is connected for use.
- c. Acetylene cylinders shall be stored and used in a vertical, valve-end-up position only.
- d. Oxygen cylinders in storage shall be separated from fuel-gas cylinders or combustible materials (especially oil or grease) a minimum distance of 20 feet or by a noncombustible barrier at least 5 feet high having a fire-resistance rating of at least $\frac{1}{2}$ hour.

17. DIP TANKS CONTAINING FLAMMABLE OR COMBUSTIBLE LIQUID

- a. Dip tanks of over 150 gallons capacity, or 10 square feet in liquid surface area, shall be equipped with a properly trapped overflow pipe leading to a safe location outside the buildings.
- b. There shall be no open flames, spark producing devices, or heated surfaces having a temperature sufficient to ignite vapors in or within 20 feet of any vapor area.

- c. All dip tanks, except hardening and tempering tanks, exceeding 150 gallons liquid capacity or having a liquid surface area exceeding 4 square feet shall be protected with at least one of the following automatic extinguishing facilities: water spray system, foam system, carbon dioxide system, dry chemical system, or automatic dip tank cover. This provision shall apply to hardening and tempering tanks having a liquid surface area of 25 square feet or more or a capacity of 500 gallons or more.

18. DOCKBOARDS

- a. Dockboards shall be strong enough to carry the load imposed on them.
- b. Portable dockboards shall be anchored or equipped with devices which will prevent their slipping. They shall have handholds or other effective means to allow safe handling.
- c. Positive means shall be provided to prevent railroad cars from being moved while dockboards are in position.

19. DRAINS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS

- a. Emergency drainage systems shall be provided to direct flammable liquid leakage and fire protection water to a safe location.
- b. Emergency drainage systems for flammable liquids, if connected to public sewers or discharged

into public waterways, shall be equipped with traps or separators.

20. DRILL PRESSES

The V-belt drive of all drill presses, including the usual front and rear pulleys, shall be guarded to protect the operator from contact or breakage.

21. DRINKING WATER

- a. Potable water shall be provided in all places of employment.
- b. The nozzle of a drinking fountain shall be set at such an angle that the jet of water will not splash back down on the nozzle, and the end of the nozzle shall be protected by a guard to prevent a person's mouth or nose from coming in contact with the nozzle.
- c. Portable drinking water dispensers shall be designed and serviced to ensure sanitary conditions, shall be capable of being closed, and shall have a tap. Unused disposable cups shall be kept in a sanitary container, and a receptacle shall be provided for used cups. The common drinking cup is prohibited.

22. DRIVE BELTS (See *Power Transmission, Mechanical, No. 57*)

23. ELEVATORS

Elevators are not covered by present OSHA stan-

dards. These are good practice procedures and might be incorporated into future OSHA standards.

- a. All elevators shall be inspected annually by a competent inspection service or inspector.
- b. All hoistway openings shall be protected by doors or gates that are interlocked with the controls, so that the car cannot be started until all gates or doors are closed, and so that gates or doors cannot be opened when the car is not at the landing.

24. ELECTRICAL INSTALLATIONS

- a. Every new electrical installation and all new equipment installed, replaced, modified, repaired, or rehabilitated after March 15, 1972, shall comply with the provisions of the 1971 National Electrical Code, NFPA 70-1971; ANSI C1 — 1971 (Rev. of 1968).
- b. Electrical installations not covered by the preceding paragraph shall comply with the articles and sections of the 1971 National Electrical Code that are set forth in 1910.309(a).

25. EMERGENCY FLUSHING, EYES AND BODY

Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.

26. EXITS

- a. Every building designed for human occupancy shall be provided with exits sufficient to permit the prompt escape of occupants in case of emergency.
- b. In hazardous areas, or where employees may be endangered by the blocking of any single means of egress due to fire or smoke, there shall be at least two means of egress remote from each other.
- c. Exits and the way of approach and travel from exits shall be maintained so that they are unobstructed and are accessible at all times.
- d. All exits shall discharge directly to the street or other open space that gives safe access to a public way.
- e. Exit doors serving more than 50 people, or at high hazard areas, shall swing in the direction of travel.
- f. Exits shall be marked by readily visible, suitably illuminated exit signs. Exit signs shall be distinctive in color and provide contrast with surroundings. The word "EXIT" shall be of plainly legible letters, not less than 6 inches high.

27. EXPLOSIVES AND BLASTING AGENTS

- a. All explosives shall be kept in approved magazines.
- b. Stored packages of explosives shall be laid flat with top side up. Black powder, when stored in

magazines with other explosives, shall be stored separately.

- c. Smoking, matches, open flames, spark-producing devices, and firearms (except firearms carried by guards) shall not be permitted inside of or within 50 feet of magazines. The land surrounding a magazine shall be kept clear of all combustible materials for a distance of at least 25 feet. Combustible materials shall not be stored within 50 feet of magazines.

- d. 26 CFR 181, "Commerce in Explosives"; administered by the Department of the Treasury, Internal Revenue Service, Alcohol, Tobacco, and Firearms Division; also sets forth rules for explosive storage.

28. EYE AND FACE PROTECTION

- a. Protective eye and face equipment shall be required where there is a reasonable probability of injury that can be prevented by such equipment.
- b. Eye and face protection equipment shall be in compliance with ANSI Z87.1 — 1968, "Practice for Occupational & Educational Eye & Face Protection."

29. FAN BLADES

When the periphery of the blades of a fan is less than 7 feet above the floor or working level, the blades shall be guarded. The guard shall have openings no

larger than 1/2 inch in their least dimension. The use of fabric nets with 1/2-inch maximum openings to modify existing substandard guards is acceptable.

30. FIRE DOORS

Fire doors are not completely covered by present OSHA standards. These are good practice procedures and might be incorporated into future OSHA standards.

- a. Fire doors shall not be blocked or tied in an open position.
- b. Fusible links for fire doors shall be located so as to properly function in case of fire and shall not be painted.
- c. Three 3-inch diameter vent holes, cut through the metal only, are required for tin-clad fire doors up to 9 feet in height. (An additional vent hole is required for doors from 9 feet to 12 feet 4 inches in height). The metal covering around the opening shall be secured with small nails, and the exposed wood thoroughly painted.
- d. A closing device shall be installed on every fire door except elevator and power-operated dumb-waiter doors equipped with electric contacts or interlocks.

31. FIRE PROTECTION

- a. Portable fire extinguishers suitable to the conditions and hazards involved shall be provided and maintained in an effective operating condition.

- b. Portable fire extinguishers shall be conspicuously located and mounted where they will be readily accessible. Extinguishers shall not be obstructed or obscured from view.

- c. Portable fire extinguishers shall be given maintenance service at least once a year with a durable tag securely attached to show the maintenance or recharge date.

- d. In storage areas, clearance between sprinkler system deflectors and top of storage varies with the type of storage. For combustible material stored over 15 feet but not more than 21 feet high in solid piles, or over 12 feet but not more than 21 feet high in piles that contain horizontal channels, the minimum clearance shall be 36 inches. The minimum clearance for smaller piles or for noncombustible materials shall be 18 inches.

32. FLAMMABLE LIQUIDS INCIDENTAL TO PRINCIPAL BUSINESS

- a. Flammable liquids shall be kept in covered containers when not actually in use.
- b. The quantity of flammable or combustible liquid that may be located outside of an inside storage room or storage cabinet in any one fire area of a building shall not exceed:
 - 25 gallons of Class IA liquids in containers;
 - 120 gallons of Class IB, IC, II, or III liquids in containers; or

- 660 gallons of Class IB, IC, II, or III liquids in a single portable tank.

- c. Flammable and combustible liquids shall be drawn from or transferred into containers within a building only through a closed piping system, from safety cans, by means of a device drawing through the top, or by gravity through an approved self-closing valve. Transferring by means of air pressure shall be prohibited.
- d. Inside storage rooms for flammable and combustible liquids shall be of fire resistive construction, have self-closing fire doors at all openings, 4-inch sills or depressed floors, a ventilation system that provides at least six air changes within the room per hour, and in areas used for storage of Class I liquids, electrical wiring approved for use in hazardous locations.
- e. Outside storage areas shall be graded in such a manner to divert spills away from buildings or other exposures, or be surrounded with curbs or dikes at least 6 inches high with appropriate drainage to a safe location for accumulated liquids. The area shall be protected against tampering or trespassing, where necessary, and shall be kept free of weeds, debris, and other combustible material not necessary to the storage.
- f. Areas where flammable liquids with flashpoints below 100 degrees F are used shall be ventilated at

- a rate of not less than 1 cubic foot-per-minute per square foot of solid floor area.

33. FLOORS, GENERAL CONDITIONS

- a. All floor surfaces shall be kept clean, dry, and free from protruding nails, splinters, loose boards, holes, or projections.
- b. Where wet processes are used, drainage shall be maintained, and false floors, platforms, mats, or other dry standing places should be provided where practicable.

34. FLOORLOADING LIMIT

Floors in buildings used for mercantile, business, industrial, or storage purposes, other than those resting directly on solid ground, shall be posted to show maximum safe floor loads.

35. FLOOROPENINGS, HATCHWAYS, OPEN SIDES, ETC.

- a. Floor openings shall be guarded by a standard railing on all exposed sides, or be protected by a suitable cover.
- b. Open-sided floors, platforms, etc., 4 feet or more above the adjacent floor or ground level shall be guarded by a standard railing on all open sides, except where there is an entrance to a ramp, stairway, or fixed ladder.

36. FOOT PROTECTION

- a. Foot protection equipment shall be worn when

there is reasonable probability that injury can be prevented by such equipment.

- b. Safety-toe footwear shall meet the requirements of ANSI Z41.1 — 1967, "Standard for Men's Safety-toe Footwear."

37. FORKLIFT TRUCKS

- a. All new forklift trucks acquired and used after 2/15/72 shall comply with ANSI B56.1 — 1969, "Power Industrial Trucks, Part II." Approved trucks shall bear a label indicating approval.
- b. High lift rider trucks shall be equipped with a substantial overhead guard unless operating conditions do not permit.
- c. Fork trucks shall be equipped with a vertical load backrest extension when the type of load presents a hazard to the operator.
- d. The brakes of highway trucks shall be set and wheel chocks placed under the rear wheels to prevent the truck from rolling while they are boarded with forklift trucks.
- e. Wheel stops or other recognized protection shall be provided to prevent railroad cars from moving while they are boarded with forklift trucks.

38. GEARS (See *Power Transmission, Mechanical, No. 57*)

39. GENERAL DUTY CLAUSE

Hazardous conditions or practices not covered in an

OSHA standard may be covered under Section 6(a) (1) of the Act which states: "Each employer shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees."

40. GUARDS, CONSTRUCTION OF

Guards for mechanical power transmission equipment shall be made of metal or other suitable material. Wood guards may be used in the woodworking and chemical industries, in industries where atmospheric conditions would rapidly deteriorate metal guards, or where temperature extremes make metal guards undesirable.

41. HEAD PROTECTION

- a. Head protection equipment (helmets) shall be worn when there is a possible danger of head injuries from impact, flying or falling objects, or electrical shock and burns.
- b. Helmets for protection against impact and penetration of falling objects shall meet the requirements of ANSI Z89.1 — 1969.
- c. Helmets for protection against electric shock and burns shall meet the requirements of ANSI Z89.2 — 1971.

42. HAND TOOLS

- a. Each employer shall be responsible for the safe

condition of tools and equipment used by employees, including tools and equipment which may be furnished by employees.

b. All handtools shall be kept in safe condition.

Handles of tools shall be kept tight in the tool, and wooden handles shall be free of splinters or cracks. Wedges, chisels, etc., shall be free of mushroomed heads. Wrenches shall not be used when sprung to the point that slippage occurs.

c. The frames of portable electric tools and equipment, except when U.L.-approved double insulated construction, shall be properly grounded.

d. Electric powered tools and equipment showing worn, deteriorated, or inadequate insulation or other parts shall be removed from service and repaired or replaced.

43. *HOOKS (See Chains, Cables, Ropes, Hooks, Etc., No. 10)*

44. *HOUSEKEEPING*

All places of employment, passageways, storerooms, and service rooms shall be kept clean and orderly and in a sanitary condition.

45. *JOINTERS*

a. Each hand-fed planer and jointer with a horizontal head shall be equipped with a cylindrical cutting head. The opening in the table shall be kept as small as possible.

b. Each hand-fed jointer with a horizontal cutting head shall have an automatic guard which will cover the section of the head on the working side of the fence or gage.

c. A jointer guard shall automatically adjust itself to cover the unused portion of the head and shall remain in contact with the material at all times.

d. Each hand-fed jointer with horizontal cutting head shall have a guard which will cover the section of the head back of the gage or fence.

46. *LADDERS, FIXED*

a. All fixed ladders shall be designed for a minimum concentrated live load of 200 pounds.

b. All rungs shall have a minimum diameter of $\frac{3}{4}$ inch, if metal, or $1\frac{1}{8}$ inches, if wood. They shall be a minimum of 16 inches in clear length and be spaced uniformly no more than 12 inches apart.

c. Metal ladders shall be painted or treated to resist corrosion or rusting when the location demands.

d. Cages, wells, or ladder safety devices for ladders affixed to towers, watertanks, or chimneys shall be provided on all ladders more than 20 feet long. Landing platforms shall be provided each 30 feet of length, except where no cage is provided, landing platforms shall be provided for every 20 feet of length.

e. Tops of cages on fixed ladders shall extend 42 inches above top of landing, unless other accep-

table protection is provided, and the bottom of the cage shall be not less than 7 feet nor more than 8 feet above the base of the ladder.

f. Side rails shall extend 3½ feet above the landing.

47. LADDERS, PORTABLE

a. The maximum length for portable wood ladders shall be: step-ladders 20 feet; single straight ladders 30 feet; two section extension ladders 60 feet; sectional ladders 60 feet; trestle ladders 20 feet; platform step-ladders 20 feet; painter's step-ladders 12 feet; and mason's ladders 40 feet.

b. The maximum length for portable metal ladders shall be: single straight ladders 30 feet; two section extension ladders 48 feet; over two section extension ladders 60 feet; step-ladders 20 feet; trestle ladders 20 feet; and platform step-ladders 20 feet.

c. Step-ladders shall be equipped with a metal spreader or locking device of sufficient size and strength to securely hold the front and back sections in open position.

d. Ladders shall be maintained in good condition, and defective ladders shall be withdrawn from service.

e. Non self-supporting ladders shall be erected on a sound base at a 4-1 pitch and placed to prevent slipping.

f. The top of a ladder used to gain access to a roof

should extend at least 3 feet above the point of contact.

g. Wooden ladders should be kept coated with a suitable protective material.

h. In general industrial use, portable metal ladders may be used in areas containing electrical circuits, if proper safety measures are taken.

48. LIGHTING

Lighting is not covered by OSHA standards for general industry. These are good practice procedures and might be incorporated into future OSHA standards:

Adequate illumination, depending upon the seeing tasks involved, shall be provided and distributed to all areas in accordance with the referenced code (Requirements vary widely, but a good rule-of-thumb is 20 to 30 foot-candles for services, and 50 to 100 foot-candles for tasks). See the *Standards Source* section of this booklet for the referenced code.

49. LUNCHROOMS

a. Employees shall not consume food or beverages in toilet rooms or in any area exposed to a toxic material.

b. Covered receptacle of corrosion resistant or disposable material shall be provided in lunch areas for disposal of waste food. The cover may be omitted where sanitary conditions can be maintained without the use of a cover.

50. MACHINE GUARDING

One or more methods of machine guarding shall be provided to protect the operator, and other employees in the machine area, from hazards such as those created by point of operation, in-going nip points, rotating parts, and flying chips or sparks.

51. MACHINERY, FIXED

Machines designed for a fixed location shall be securely anchored to prevent walking or moving, or designed in such a manner that they will not move in normal operation.

52. MATS, INSULATING

Where motors or controllers operating at more than 160 volts to ground are guarded against accidental contact only by location, and where adjustment or other attendance may be necessary during operations, suitable insulating mats or platforms shall be provided.

53. MEDICAL SERVICES AND FIRST AID

- a. The employer shall ensure the ready availability of medical personnel for advice and consultation on matters of plant health.
- b. When a medical facility for treatment of injured employees is not available in near proximity of the workplace, a person or persons shall be trained to render first aid.

- c. First aid supplies approved by the consulting physician shall be readily available.

54. NOISE EXPOSURE

- a. Protection against the effects of occupational noise exposure shall be provided when the sound levels exceed those shown in Table G-16 of the Safety and Health Standards. Feasible engineering and/or administrative controls shall be utilized to keep exposure below the allowable limit.
- b. When engineering or administrative controls fail to reduce the noise level to within the levels of Table G-16 of the Safety and Health Standards, personal protective equipment shall be provided and used to reduce the noise to an acceptable level.
- c. Exposure to impulsive or impact noise should not exceed 140 dB peak sound pressure level.
- d. In all cases, where the sound levels exceed the values shown in Table G-16 of the Safety and Health Standards, a continuing, effective hearing conservation program shall be administered.

e. Table G-16—Permissible Noise Exposures

Duration per day, hours:	Sound level	
	dBA	slow response
8	90	90
6	92	92
4	95	95
3	97	97

Duration per day, hours:	Sound level dBA slow response
2	100
1½	102
1	105
½	110
¼ or less	115

55. PERSONAL PROTECTIVE EQUIPMENT

- a. Proper personal protective equipment, including shields and barriers, shall be provided, used, and maintained in a sanitary and reliable condition where there is a hazard from processes or environment that may cause injury or illness to the employee.
- b. Where employees furnish their own personal protective equipment, the employer shall be responsible to assure its adequacy and to ensure that the equipment is properly maintained and in a sanitary condition.

56. PORTABLE ELECTRIC TOOLS (See *Hand Tools, No. 42*)

57. POWER TRANSMISSION, MECHANICAL

- a. All belts, pulleys, chains, flywheels, shafting and shaft projections, or other rotating or reciprocating parts within 7 feet of the floor or working platform shall be effectively guarded.

- b. Belts, pulleys, and shafting located in rooms used exclusively for power transmission apparatus need not be guarded when the following requirements are met:

- The basement, tower, or room occupied by transmission equipment is locked against unauthorized entrance;
- The vertical clearance in passageways between the floor and power transmission beams, ceiling, or any other objects is not less than 5 feet - 6 inches;
- The intensity of illumination conforms to the requirements of ANSI A11.1 - 1965 (R 1970);
- The footing is dry, firm, and level;
- The route followed by the oiler is protected in such a manner as to prevent accidents.

58. PRESSURE VESSELS, PORTABLE UNFIRED

Pressure vessels are not covered by present OSHA standards. These are good operating procedures and might be incorporated into future OSHA standards.

- a. All portable unfired pressure vessels should be designed and constructed to meet the Standards of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section VIII.
- b. Portable unfired pressure vessels not built to code should be examined quarterly by a competent person and subjected yearly to a hydrostatic pressure test of 1½ times the working pressure of

the vessel. Records of such examination and tests should be maintained.

- c. Relief valves on pressure vessels should be set to the safe working pressure of the vessel, or to the lowest safe working pressure of the system, whichever is lower.

59. PUNCH PRESSES

- a. It shall be the responsibility of the employer to provide and ensure the usage of "point-of-operation guards" or properly applied and adjusted point-of-operation devices on every operation performed on a mechanical power press. This requirement shall not apply when the point-of-operation opening is $\frac{1}{4}$ inch or less.
- b. A substantial guard shall be placed over the trestle of foot-operated presses.
- c. Pedal counterweights, if provided on foot-operated presses, shall have the path of the travel of the weight enclosed.

60. PULLEYS (See *Power Transmission, Mechanical, No. 57*)

- a. Employers shall be responsible for proper controls to prevent any employee from being exposed to radiation, either ionizing or electromagnetic, in excess of acceptable limits.
- b. Each radiation area shall be conspicuously posted with appropriate signs and/or barriers.

61. RADIATION

- a. Employers shall be responsible for proper controls to prevent any employee from being exposed to radiation, either ionizing or electromagnetic, in excess of acceptable limits.
- b. Each radiation area shall be conspicuously posted with appropriate signs and/or barriers. Employers shall maintain records of the radiation exposure of all employees for whom personnel monitoring is required.
- c. Employers shall maintain records of the radiation exposure of all employees for whom personnel monitoring is requested.

62. RAILINGS

- a. A standard railing shall consist of top rail, intermediate rail and posts, and shall have a vertical height of 42 inches from upper surface of top rail to floor, platform, etc.
- b. A railing for open-sided floors, platforms, and runways shall have a toeboard whenever beneath the open side, persons can pass, there is moving machinery, or there is equipment with which falling materials could cause a hazard.
- c. Railings shall be of such construction that the complete structure shall be capable of withstanding a load of at least 200 pounds in any direction on any point on the top rail.
- d. A stair railing shall be of construction similar to a

standard railing, but the vertical height shall be not more than 34 inches nor less than 30 inches from upper surface of top rail to surface of tread in line with face of riser at forward edge of tread.

c. (See *Tieboards*, No. 77)

63. RAIL SWEEPS (See *Cranes and Hoists*, No. 15)

64. REVOLVING DRUMS

Revolving drums, barrels, or containers shall be guarded by an interlocked enclosure that will prevent the drum, etc., from revolving unless the guard enclosure is in place.

65. ROPES (See *Chains, Cables, Ropes, Hooks, Etc.*, No. 10)

66. SAWS, BAND

a. All portions of hand saw blades shall be enclosed or guarded except for the working portion of the blade between the bottom of the guide rolls and the table.

b. Bandsaw wheels shall be fully encased. The outside periphery of the enclosure shall be solid. The front and back shall be either solid or wire mesh or perforated metal.

67. SAWS, PORTABLE CIRCULAR

All portable power-driven circular saws having a blade diameter greater than 2 inches shall be

equipped with guards above and below the base plate or shoe. The lower guards shall cover the saw to the depth of the teeth, except for the minimum arc required to permit the base plate to be tilted for bevel cuts, and shall automatically return to the covering position when the blade is withdrawn from the work. This provision does not apply to circular saws used in the meat industry for meat cutting purposes.

68. SAWS, RADIAL

a. Radial saws shall have an upper guard which completely encloses the upper half of the saw blade. The sides of the lower exposed portion of the blade shall be guarded by a device that will automatically adjust to the thickness of and remain in contact with the material being cut.

b. Radial saws used for ripping shall have non-kickback fingers or dogs.

c. Radial saws shall be installed so that the cutting head will return to the starting position when released by the operator.

69. SAWS, SWING OR SLIDING CUT-OFF

a. All swing or sliding cut-off saws shall be provided with a hood that will completely enclose the upper half of the saw.

b. Limit stops shall be provided to prevent swing or sliding type cut-off saws from extending beyond the front or back edges of the table.

c. Each swing or sliding cut-off saw shall be provided

with an effective device to return the saw automatically to the back of the table when released at any point of its travel.

- d. Inverted sawing or sliding cut-off saws shall be provided with a hood that will cover the part of the saw that protrudes above the top of the table or material being cut.

70. SAWS, TABLE

- a. Circular table saws shall have hood over the portion of the saw above the table, so mounted that the hood will automatically adjust itself to the thickness of and remain in contact with the material being cut.
- b. Circular table saws shall have a spreader aligned with the blade, spaced no more than 1/2 inch behind the largest blade mounted in the saw. *The provision of a spreader in connection with grooving, dadoing, or rabbeting is not required.*
- c. Circular table saws used for ripping shall have non-kickback fingers or dogs.
- d. Feed rolls and blades of self-feed circular saws shall be protected by a hood or guard to prevent the hands of the operator from coming in contact with the in-running rolls at any point.

71. SCAFFOLDS

- a. All scaffolds and their supports shall be capable of supporting the load they are designed to carry with a safety factor of at least 4.

- b. All planking shall be Scaffold Grade, as recognized by grading rules for the species of wood used. The maximum permissible spans for 2 x 9 inch or wider planks are shown in the following table:

MATERIAL.

	Full thickness undressed lumber	Nominal thickness lumber
Working load (p.s.f.)	25	50
Permissible span (ft.)	10	8
	8	6

The maximum permissible span for 1 1/4 x 9 inch or wider plank of full thickness is 4 feet, with medium loading of 50 p.s.f.

- c. Scaffold planks shall extend over their end supports not less than 6 inches nor more than 18 inches.
- d. Scaffold planking shall be overlapped a minimum of 12 inches or secured from movement.
- e. Railings and toeboards shall be installed on all open sides and ends of platforms more than 10 feet above the floor. There shall be a screen with 1/2-inch maximum openings between the toeboard and the midrail where persons are required to work or pass under the scaffold.

72. SPRAY FINISHING OPERATIONS

- a. All spray finishing shall be conducted in spray booths or spray rooms.
- b. Spray booths and spray rooms shall be constructed of metal or other substantial noncombustible material.
- c. There shall be no open flame or spark-producing equipment in any spraying areas nor within 20 feet thereof, unless separated by a partition.
- d. Electrical wiring and equipment located in a spraying area shall be of explosion-proof type, approved for Class I, Group D locations.
- e. All spraying areas shall be provided with mechanical ventilation adequate to remove flammable vapors, mists, or powders to a safe location and to confine and control combustible residues so that life is not endangered.
- f. Electric motors driving exhaust fans shall not be placed inside flammable materials spray booths or ducts. Belts or pulleys within the booth or duct shall be thoroughly enclosed.
- g. The quantity of flammable or combustible liquid kept in the vicinity of spraying operations shall be the minimum required for operations and should ordinarily not exceed a supply for 1 day or one shift.
- h. Conspicuous "NO SMOKING" signs shall be

posted at all flammable materials spraying areas and storage rooms.

73. STAIRS, FIXED INDUSTRIAL.

- a. Every flight of stairs having four or more risers shall be provided with a standard railing on all open sides. Handrails shall be provided on at least one side of closed stairways, preferably on the right side descending.
- b. Stairs shall be constructed so that rise height and tread width is uniform throughout.
- c. Fixed stairways shall have a minimum width of 22 inches.
- d. (*See Railings, No. 62(d), for stair railing design requirements*)

74. STATIONARY ELECTRICAL DEVICES

All stationary electrically powered equipment, tools, and devices, located within reach of a person who can make contact with any grounded surface or object, shall be grounded.

75. STORAGE

- a. All storage shall be stacked, blocked, interlocked, and limited in height so that it is secure against sliding or collapse.
- b. Storage areas shall be kept free from accumulation of materials that constitute hazards or pest harborage. Vegetation control will be exercised when necessary.

- c. Where mechanical handling equipment is used, sufficient safe clearance shall be allowed for aisles, at loading docks, through doorways, etc.

76. TANKS, OPEN-SURFACE

Where ventilation is used to control potential exposures to employees, it shall be adequate to reduce the concentration of the air contaminated to the degree that a hazard to employees does not exist.

77. TOEBOARDS

- a. Railings protecting floor openings, platforms, scaffolds, etc., shall be equipped with toeboards whenever, beneath the open side, persons can pass, there is moving machinery, or there is equipment with which falling material could cause a hazard.
- b. A standard toeboard shall be at least 4 inches in height and may be of any substantial material, either solid or open, with openings not to exceed 1 inch in greatest dimension.
- c. (*See Railings, No. 62, of this digest*)

78. TOILETS

- a. Every place of employment shall be provided with adequate toilet facilities which are separate for each sex. Water closets shall be provided according to the following: 1-15 persons, one facility; 16-35 persons, two facilities; 36-55 persons, three facilities; 56-80 persons, four facilities; 81-110

persons, five facilities; 111 to 150 persons, six facilities; over 150 persons, one for each additional 40 persons.

- b. Where toilet rooms will be occupied by no more than one person at a time, can be locked from the inside, and contain at least one water closet, separate toilet rooms for each sex need not be provided.
- c. Each water closet shall occupy a separate compartment with a door and walls or partitions between fixtures sufficiently high to assure privacy.
- d. The requirements of (a) and (b) above do not apply to mobile crews or normally unattended locations, as long as employees working at these locations have transportation immediately available to nearby toilet facilities.
- e. Adequate washing facilities shall be provided in every toilet room or be adjacent thereto.
- f. Covered receptacles shall be kept in all toilet rooms used by women.

79. TOXIC VAPORS, GASES, MISTS, AND DUSTS

- a. Exposure to toxic vapors, gases, mists, or dusts at a concentration above the Threshold Limit Value, contained or referred to in Safety and Health Standards, shall be avoided.
- b. To achieve compliance with paragraph (a), ad-

ministrative or engineering controls must first be determined and implemented whenever feasible. When such controls are not feasible to achieve full compliance, protective equipment or any other protective measures shall be used to keep the exposure of employees to air contaminants within the limits prescribed. Any equipment and/or technical measures used for this purpose must be approved for each particular use by a competent industrial hygienist or other technically qualified person.

80. TRASH

Trash and rubbish shall be collected and removed in such a manner as to avoid creating a menace to health and as often as necessary to maintain good sanitary conditions.

81. WASHING FACILITIES

- a. Adequate washing facilities shall be provided in every place of employment and maintained in a sanitary condition. For industrial establishments, at least one lavatory with adequate hot and cold water shall be provided for every 10 employees up to 100 persons, and one lavatory for each 15 persons over 100.
- b. A suitable cleansing agent, individual hand towels or other approved apparatus for drying the hands, and receptacles for disposing of hand towels, shall be provided at washing facilities.

82. WELDING (See also Cylinders, Compressed Gas, No. 16)

- a. Welding equipment shall be chosen for safe application to the work and shall be installed properly. Employees designated to operate welding equipment shall be properly instructed and qualified to operate it.
- b. Mechanical ventilation shall be provided when welding or cutting:
 - beryllium, cadmium, lead, zinc, or mercury;
 - fluxes, metal coatings, or other material containing fluorine compounds;
 - where there is less than 10,000 cubic feet per welder;
 - where the overhead height is less than 16 feet; and
 - in confined spaces.
- c. Proper shielding and eye protection to prevent exposure of personnel from welding hazards shall be provided.
- d. Proper precautions (isolating welding and cutting, removing fire hazards from the vicinity, providing a fire watch, etc.) for fire prevention shall be taken in areas where welding or other "hot work" is being done.
- e. Work and electrode lead cables shall be frequently inspected. Cables with damaged insulation or exposed bare conductors shall be replaced.

83. WIRE ROPES (See Chains, Cables, Ropes, Hooks, Etc., No. 10)

84. WOODWORKING MACHINERY

- a. All woodworking machinery such as table saws, swing saws, radial saws, band saws, jointers, tenoning machines, boring and mortising machines, shapers, planers, lathes, sanders, veneer cutters, and other miscellaneous woodworking machinery shall be effectively guarded to protect the operator and other employees from hazards inherent to their operation.
- b. A power control device shall be provided on each machine to make it possible for the operator to cut off the power to the machine, without leaving his position at the point of operation.
- c. Power controls and operating controls should be located within easy reach of the operator while he is at his regular work location, making it unnecessary for him to reach over the cutter to make adjustments. *This does not apply to constant pressure controls used only for setup purposes.*
- d. Each operating treadle shall be protected against unexpected or accidental tripping.

DIGESTNUMBER	SOURCE
1 a.....	1910.244(b)
1 b.....	1910.94(a)(2)(ii)
1 c.....	1910.94(3)
1 d.....	1910.94(a)(6)
2 a.....	1910.215(a)(1)
2 b.....	1910.215(a)(2)
2 c.....	1910.215(a)(4)
2 d.....	1910.94(b)(2)(ii)
2 e.....	1910.212(b)
3 a.....	1904.8
3 b.....	1904
4 a.....	1910.169(b)(1)
4 b.....	1910.169(b)(1)
4 c.....	1910.169(b)(3)
5 a.....	1910.243(b)(1)
5 b.....	1910.243(b)(2)
6 a.....	1910.22(b)(1)
6 b.....	1910.22(b)(1)
6 c.....	1910.22(b)(2)
7 a.....	1910.213(p)(4)
7 b.....	1910.213(p)(4)
8 a.....	ASME Boiler and Pressure Vessel Code
8 b.....	ASME Boiler and Pressure Vessel Code
8 c.....	ASME Boiler and Pressure Vessel Code

DIGEST NUMBER	SOURCE
9 a.....	1910.216(b)(1) for rubber and plastics industry, 1910.212(a)(3)(iv) for all industry
9 b.....	1910.216(b)(2) for rubber and plastics industry, 1910.212(a)(3)(iv) for all industry
10 a.....	1910.179(j)(2)(iii), (iv), and (v) and 1910.179(i)(3)(i)
10 b.....	1910.179(h)(2)
10 c.....	1910.179(h)(2)(v)
11 a.....	1910.242(b)
12 a.....	1910.93(a)
12 b.....	1910.252(f)(1)(ii)
13.....	1910.242(b)
14 a.....	1910.265(c)(18)(Sawmills only)
14 b.....	1910.265(c)(18)(Sawmills only)
14 c.....	1910.23(a)(3)
15 a.....	1910.179(j)(2)
15 b.....	1910.179(j)(3)
15 c.....	1910.179(e)(1), (2), (3), and (4)
15 d.....	1910.179(b)(5)
16 a.....	1910.252(a)(2)(ii)(a) and (b)
16 b.....	1910.252(a)(2)(ii)(d)
16 c.....	1910.252(a)(2)(iii)(b) and (a)(2)(v)(c)(i)
16 d.....	1910.252(a)(2)(iv)(c)
17 a.....	1910.108(c)(2)
17 b.....	1910.108(e)(1)

DIGEST NUMBER	SOURCE
17 c.....	1910.108(c)(5) and (b)(1)(v)
18 a.....	1910.30(a)(1)
18 b.....	1910.30(a)(2) and (4)
18 c.....	1910.30(a)(5)
19 a.....	1910.106(e)(3)(iv)(a)
19 b.....	1910.106(e)(3)(iv)(b)
20 a.....	1910.219(d)(1) and (e)(1)
21 a.....	1910.141(b)(1)(i)
21 b.....	1910.141(b)(1)(ii)
21 c.....	1910.141(b)(1)(iii), (vi), and (vii)
22.....	See item 57 of this digest
23 a.....	ANSI Z17.2
23 b.....	ANSI Z17.2
24 a.....	1910.309(b)
24 b.....	1910.309(a)
25 a.....	1910.151(c)
26 a.....	1910.36(b)(1)
26 b.....	1910.36(b)(3) and (8)
26 c.....	1910.36(d)(1) and 1910.37(f)(1)
26 d.....	1910.37(b)(1)
26 e.....	1910.37(f)(2)
26 f.....	1910.37(q)(1), (4), (6), and (8)
27 a.....	1910.109(c)(1)(i)
27 b.....	1910.109(c)(5)(i)
27 c.....	1910.109(c)(5)(vii)
27 d.....	26 CFR 181
28 a.....	1910.133(a)(1)
28 b.....	1910.133(a)(6)

DIGEST NUMBER	SOURCE
29.....	1910.212(a)(5)
30 a.....	Not completely covered by present OSHA standards
30 b.....	Not completely covered by present OSHA standards
30 c.....	Not completely covered by present OSHA standards
30 d.....	Not completely covered by present OSHA standards
31 a.....	1910.157(a)(1) and (b)(1)
31 b.....	1910.157(a)(2) and (3)
31 c.....	1910.157(d)(3)(i) and (iv)
31 d.....	1910.159(e)
32 a.....	1910.106(e)(2)(ii)
32 b.....	1910.106(e)(2)(ii)(b)
32 c.....	1910.106(e)(2)(iv)(d)
32 d.....	1910.106(d)(4)
32 e.....	1910.106(d)(6)(iii) and (iv)
32 f.....	1910.106(e)(3)(v)
33 a.....	1910.22(a)(2) and (3)
33 b.....	1910.22(a)(2)
34.....	1910.22(d)(1)
35 a.....	1910.23(a)
35 b.....	1910.23(c)
36 a.....	1910.132(a)
36 b.....	1910.136
37 a.....	1910.178(a)(2) and (3)
37 b.....	1910.178(e)(1)

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DIGEST NUMBER	SOURCE
37 c.....	1910.178(e)(2)
37 d.....	1910.178(m)(7)
37 e.....	1910.178(k)(2)
38.....	See item 57 of this digest
39.....	PL 91-596, Section 5(a)(1)
40.....	1910.219(0)(1) and (2)
41 a.....	1910.132(a)(1)
41 b.....	1910.136
41 c.....	ANSI Z89.2-1971
42 a.....	1910.242(a)
42 b.....	1910.242(a)
42 c.....	1910.309(a) and (b)
42 d.....	1910.242(a)
43.....	See item 10 of this digest
44.....	1910.22(a)(1)
45 a.....	1910.213(j)(1) and (2)
45 b.....	1910.213(j)(3)
45 c.....	1910.213(j)(3)
45 d.....	1910.213(j)(4)
46 a.....	1910.27(a)(1)(i)
46 b.....	1910.27(b)(1)
46 c.....	1910.27(b)(7)
46 d.....	1910.27(d)(1), (2), and (5)
46 e.....	1910.27(d)(1)(iii) and (iv)
46 f.....	1910.27(d)(3)
47 a.....	1910.25(c)(2), (3)(ii), (3)(iii), (3)(iv), (3)(v), (4)(i), (4)(ii), and (4)(iii)

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FIRST AID FOR BURNS

Minor Heat Burns

Minor heat burns include most 1st degree burns and very small 2nd degree burns. They are characterized by red or pink skin. There are no (or very few) small blisters and little or no swelling. Pain is not severe. Before tending any burn, wash your hands thoroughly to prevent infection. Use sterile dressings and change them frequently.

For minor heat burns on the body, immediately immerse the burned area in clean, cool water for 5 minutes or until pain lessens. Pat dry. Do not apply ointment. Cover lightly with a dry, sterile bandage. Reduce pain by applying a dry, insulated cold pack for not more than 15 minutes. Watch minor 2nd degree burns closely to be sure they don't burn deeper into the skin.

For eye burns, flood the eye with water, cover with a dry, sterile dressing and bandage in place. Call a physician immediately for any eye burn.

For a cinder in the eye, remove the cinder with a clean cloth. If you can't get it out, bandage both eyes to limit eye movement, and call a physician.

Medical help should be sought if: (1) If the burn is on the hands, feet, face, eyes, or genitals (2) If the victim is an infant, child, elderly, or a sick person (3) If swelling, blistering, or infection develops, or (4) If the pain is very severe. If you have any doubts about how serious a burn is consult a physician. Burns are often more serious than they look.

Major Heat Burns

Major heat burns include deep 2nd degree and all 3rd degree burns. They may threaten a life. Second degree burns are characterized by red, blistered, and swollen skin. Broken blisters ooze fluid. Pain is severe. Third degree burns are characterized by red skin with white or black charred areas. There is little or no pain at first.

For 2nd degree major heat burns on the body, cool the burn with cold water. Do not apply ointment. Cover with a sterile cloth. Do not break blisters. Watch out for shock and get the victim to the hospital immediately. For 3rd degree major heat burns on the body, do not remove clothing (unless smoldering) or apply water or wet packs. Cover victim with a clean dry sheet. Keep victim quiet. Elevate burned areas. If large areas of the body are burned, keep victim quiet and warm. Get victim to the hospital immediately.

For deep eye burns, do not put water in the eye. Cover burned area with a dry insulated cold pack. Elevate head and shoulders. Watch for signs of shock, and get the victim to the hospital immediately.

Face, nose, or mouth burns may mean that air passages are also burned. If these swell, the victim may suffocate. If the victim isn't breathing, give mouth-to-mouth resuscitation or CPR and get him to the hospital immediately.

For major scald burns, burns caused by very hot liquid or steam, cool the burn with cool water. Apply dry, insulated cold packs for no more than 15 minutes. Remove all clothing. Have the victim lie down and place a pillow under the shoulders to aid breathing. Get the victim to the hospital immediately. For all major heat burns, get medical help as soon as possible. Keep emergency number posted by the telephone for quick reference.

Electrical Burns

In treating electrical burns the first step is to rescue the victim. Do not touch the victim until you have shut off the electrical current. Disconnect electricity at the fuse box or pull out the plug. If you can't do this, push the victim away from the electrical source with a non-conductor such as a long, dry wooden board. Check for pulse and to see if the victim is breathing. If necessary give mouth-to-mouth resuscitation or CPR. Keep the victim lying down and get medical help right away.

Chemical Burns

Chemicals commonly used at work and at home can cause severe burns. Prompt action is vital to stop chemicals from penetrating further. Flood all skin burns with lukewarm running water for at least 5 minutes. Remove all clothing from the burn. Cover with a sterile dressing. Watch for signs of shock. Get medical help if it is serious.

For eye burns, remove all contact lenses and flood the eye with water for at least 20 minutes. At work, use the eyewash fountain. Remove any loose pieces of chemical with a clean cloth. Cover with a dry sterile dress and get the victim to the hospital.

SAFE WORKING HABITS

All employees must take an active interest in safe work habits. Use common sense when lifting, moving boxes, using flammable materials etc. No safety program will work without

DIGEST NUMBER	SOURCE
47b.....	1910.26(a)(2)(ii), (3)(iii), (4)(i) and (6)(i)
47c.....	1910.25(c)(2)(i)(f) and 1910.26(a)(3)(viii)
47d.....	1910.25(d)(1) and 1910.26(c)(2)
47e.....	1910.25(d)(2)(i) and (iii) and 1910.26(c)(3)(i) and (iii)
47f.....	1910.25(d)(2)(xv)
47g.....	1910.25(d)(1)(ix)
47h.....	1910.26(c)(3)(viii)
48.....	ANSI A11.1
49a.....	1910.141(g)(2)
49b.....	1910.141(g)(3)
50.....	1910.212(a)(1)
51.....	1910.212(b)
52.....	1910.309(h), 1971 National Electrical Code; NFPA 70-1971, Article 430-133. Applies to installations installed or modified after 3/15/72.
53a.....	1910.151(a)
53b.....	1910.151(b)
53c.....	1910.151(b)
54a.....	1910.95(a)(1)
54b.....	1910.95(b)(1)
54c.....	1910.95(b)(1)
54d.....	1910.95(b)(3)
54e.....	1910.95(b)(1)
55a.....	1910.132(a)

DIGEST NUMBER	SOURCE
55b.....	1910.132(b)
56.....	See item 42 of this digest
57a.....	1910.219
57b.....	1910.219(c)(6)
58a.....	Not covered by present OSHA standards
58b.....	Not covered by present OSHA standards
58c.....	Not covered by present OSHA standards
59a.....	1910.217(c)(1)
59b.....	1910.217(b)(4)
59c.....	1910.217(b)(4)(iv)
60.....	See item 57 of this digest
61a.....	1910.96(b)(1) and (c)(1) and 1910.97(a)(2)
61b.....	1910.96(e)(2) and 1910.97(a)(3)
61c.....	1910.96(b)(2)(iii) and (n)(1)
62a.....	1910.23(e)(1)
62b.....	1910.23(c)(1)
62c.....	1910.23(e)(3)(iv)
62d.....	1910.23(e)(2)
62e.....	See item 77 of this digest
63.....	See item 15 of this digest
64.....	1910.212(a)(4)
65.....	See item 10 of this digest
66a.....	1910.213(i)(1)
66b.....	1910.213(i)(1)
67.....	1910.243(a)(1)
68a.....	1910.213(h)(1)
68b.....	1910.213(h)(2)

DIGESTNUMBER	SOURCE
68c.....	1910.213(h)(4)
69a.....	1910.213(g)(1)
69b.....	1910.213(g)(3)
69c.....	1910.213(g)(2)
69d.....	1910.213(g)(4)
70a.....	1910.213(c)(1), (d)(1), and (e)(1)
70b.....	1910.213(c)(2), (d)(2), and (e)(2)
70c.....	1910.213(c)(3) and (f)(2)
70d.....	1910.213(f)(1)
71a.....	1910.28(a)(4)
71b.....	1910.28(a)(9)
71c.....	1910.28(a)(13)
71d.....	1910.28(a)(11)
71e.....	1910.28(a)(3) and (17)
72a.....	1910.94(c)(2)
72b.....	1910.94(c)(4) and 1910.107(b)(1)
72c.....	1910.107(c)(2)
72d.....	1910.107(c)(6)
72e.....	1910.107(d)(2)
72f.....	1910.107(d)(5) and (6)
72g.....	1910.107(e)(2)
72h.....	1910.107(g)(7)
73a.....	1910.23(d)(1) and 1910.24(h)
73b.....	1910.24(e)
73c.....	1910.24(d)
73d.....	See item 62 of this digest
74.....	1910.309(a); National Electrical Code, Article 250-42

DIGESTNUMBER	SOURCE
75a.....	1910.176(b)
75b.....	1910.176(c)
75c.....	1910.176(a)
76.....	1910.94(d)(3)
77a.....	1910.23(c)(1)
77b.....	1910.23(e)(4)
77c.....	See item 62 of this digest
78a.....	1910.141(c)(1)(i)
78b.....	1910.141(c)(1)(i)
78c.....	1910.141(c)(2)(i)
78d.....	1910.141(c)(1)(i)
78e.....	1910.141(c)(1)(vii)
78f.....	1910.141(c)(1)(vi)
79a.....	1910.93(a)
79b.....	1910.93(e)
80.....	1910.141(a)(4)(iii)
81a.....	1910.141(d)(1) and (2)(i)
81b.....	1910.141(d)(2)(iii), (iv), and (v)
82a.....	1910.252(b)(1), and (c)(1)
82b.....	1910.252(f)
82c.....	1910.252(e)(2)(i) and (iii)
82d.....	1910.252(d)
82e.....	1910.252(b)(4)(ix)(c)
83.....	See item 10 of this digest
84a.....	1910.213(c), (d), (e), (f), (g), (h), (i), (j), (k), (l), (m), (n), (o), (p), (q), and (r)
84b.....	1910.213(b)(1)
84c.....	1910.213(b)(4)

APPENDIX F
ORIENTATION CHECK LIST

ORIENTATION CHECK LIST
FOR NEW OR TRANSFERRED EMPLOYEES

Division: _____

Name: _____ Department: _____ Job Title: _____

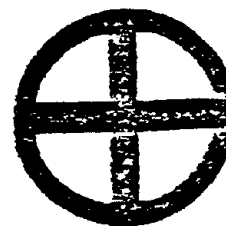
SUBJECTS TO BE COVERED	CHECK OFF
<u>GENERAL ORIENTATION:</u>	
1. Take Employee on Division Tour (all Departments)	
2. Parking and non-parking areas.	
3. Entrances and exits.	
4. Rest Rooms and water fountains.	
5. Locker facilities.	
6. Eating facilities. (lunch area and vending machines)	
7. Smoking Areas.	
8. Breaks - lunch and job (when and how long)	
9. Company Rules.	
10. Proper Clothing for job.	
11. Housekeeping rules.	
12. Bulletin Boards.	
13. Union Membership.	
<u>SAFETY ORIENTATION:</u>	
1. Safety rules and regulations (give copy to employee)	
2. Safety equipment - Company furnished and purchased.	
3. Fire extinguishers - Location and use.	
4. Fire alarms - Location and activation.	
5. Fire escapes & fire evacuation routes.	
6. First aid - Location.	
7. Safety suggestions welcomed.	
8. Reporting unsafe conditions and behavior.	
9. Accident reporting procedure.	
10. Accident prevention.	
11. Introduce employee to First Aid & Safety Committee Reps.	
<u>JOB ORIENTATION:</u>	
1. Hours of work.	
2. Time clock and card rack.	
3. Wage rate and pay day.	
4. Overtime and shift differential.	
5. Absenteeism - How to report (give employee Company phone #).	
6. Describe job duties to employee.	
7. Show importance of job to overall operation (stress quality).	
8. Point out specific hazards of the job.	
9. Show how to use protective equipment.	
10. Introduce employees to fellow workers.	
11. Introduce employee to job instructor.	

APPENDIX G
SAFETY NEWSLETTER



MALDEN MILLS INC.
LAWRENCE, MA.

Safety News



VOLUME 1
SEPTEMBER, 1974

This is the first edition of the Safety Newsletter which will be published during the last week of each month. The newsletter will review current safety programs, report on improvements in safety practices, examine problem areas and their proposed solutions, and report on safety records in the various divisions or departments. It will also include safety and first-aid tips for both at work and at home. For this reason, it should be shared with other family members and friends. For more information regarding the newsletter, contact Lois Hajjar, ext. 479.

SAFETY IMPROVEMENTS IN FLOCK

The electrical control logic in the Poly-wrap Main Sealer has been changed in order to add an additional safety feature. It will enhance over-all safety to the employees working on this equipment.

The Safety Department is investigating what actions can be taken to reduce the amount of flock dust in certain areas of the division and in the warehouses on the 4th and 5th floors.

SAFETY SHOES PREVENT SERIOUS INJURY

There was an accident to an employee in an elevator in the Flock Division. A program is underway to improve elevator guards and install interlocks on all elevators. It is the opinion of the Safety Director that the fact that the employee was wearing safety shoes, saved his foot from possible amputation. For more information regarding safety shoes, see Al Kraumelis.

WHAT'S AHEAD

In the next few months, the Safety Department's immediate plans will be to look into improving and adding machine guards, and also to purchase monitoring equipment to test noise and dust levels.

SUCCESSFUL SAFETY PROGRAM IN RETAIL

On August 5th, the new Safety Director, Al Kraumelis, conducted an inspection of the Retail Division on Canal St. As a result of the inspection, which consisted of a walking tour of the 2nd, 3rd, and 4th floors of the Retail Building, several sub-standard conditions were acknowledged.

The first, and only serious condition concerned the Signode Power Strapping Machine. The operator of this strapping equipment had no control and no means of stopping the equipment once the foot pedal had been engaged. The recommendation was made that they install a red mushroom-type button device which would be electrically interconnected to the control circuit of the strapping machine. The device was installed and is located on the frame of the strapper, facing the operator, and allowing easy access to the safety stop. Also on the 2nd floor, the main aisle electrical conduit and outlet box have been secured, and the room thermostat located in the aisle near the shipping dock which was suspended by exposed electrical wires has been corrected. On the 3rd floor, sprinkler heads which were covered over with paper and tape have been cleared, and covers were provided for the outlet box near the conveyor. The storage of material on the 4th floor which extended into the aisle has been cleared.

By the next safety tour, on September 17 all recommendations had been met, and all sub-standard conditions corrected. Goals and objectives for the Safety Program in Retail have been established, and their Safety Committee is now evaluating the maximum heights at which material can be stored under the sprinklers and still assume adequate fire protection. Also, Mike Cerullo successfully organized a fire-drill on September 24, and the Retail Building can be evacuated in the case of a fire in 4 minutes. Congratulations to the division for their outstanding cooperation and concern for their employees. If the Safety Program can work in one division, with everyone's cooperation it can work in all the divisions.

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