



DEPARTMENT OF HEALTH
ENVIRONMENTAL HEALTH SERVICE
Manila, Philippines
1998



IMPLEMENTING RULES AND
REGULATIONS OF CHAPTER V

**“PUBLIC
LAUNDRY”**

OF THE CODE ON
SANITATION OF THE PHILIPPINES
(P.D. 856)

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IMPLEMENTING RULES AND REGULATIONS OF
CHAPTER V - "PUBLIC LAUNDRY" OF THE CODE ON
SANITATION OF THE PHILIPPINES (P. D. 856)

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MALAYA AT MALUSOG
NA PAMAYANAN

Republic of the Philippines
Department of Health
OFFICE OF THE SECRETARY
San Lazaro Compound, Rizal Avenue, Sta. Cruz
Manila, Philippines
Tel. No. 7119502 to 03 • Fax No. 7431829



26 November 1998

IMPLEMENTING RULES AND REGULATIONS OF CHAPTER V - “PUBLIC LAUNDRY ” OF THE CODE ON SANITATION OF THE PHILIPPINES (P.D. 856)

To carry out the provisions of Chapter V - “Public Laundry” of the Code on Sanitation of the Philippines (P.D. 856), these rules and regulations are hereby formulated for implementation and strict compliance of all concerned.

SECTION 1. SCOPE

These implementing rules and regulations shall apply to all public laundry including commercial laundry such as laundromat, dry cleaning laundry, linen-supply laundry, diaper-supply laundry, and public laundry places such as a community laundry area, as well as institutional establishments with laundry equipment and facilities such as hotels, motels, massage parlors, dormitories, hospitals and other health-related institutions and other similar establishments operated by individuals, corporations, partnerships, government agencies, instrumentalities or institutions.

SECTION 2. DEFINITION OF TERMS

As used in these rules and regulations, the following terms shall mean:

- 2.1 **CHEMICAL WASTE** – comprises of discarded solid, liquid and gaseous chemicals. Chemical waste may be hazardous or non-hazardous. It is considered hazardous if it is toxic, corrosive (acids of pH<2 and bases of pH>12), flammable, reactive (explosive, water reactive, shock sensitive), or genotoxic (carcinogenic, mutagenic, teratogenic, or otherwise capable of altering genetic material). It is non-hazardous if it consists of chemicals other than those described above.
- 2.2 **COMMERCIAL LAUNDRY** – a type of laundry utilizing mechanized equipment, specialized facilities, and trained personnel to perform the operation. The service is charged with a fee. There are several types of commercial laundry depending on its specialization, these are:

- 2.2.1 **DIAPER-SUPPLY** - a type of laundry which exclusively supplies clean diapers for babies. The customer may own the diapers and use the service for laundering or rent the diapers along with the service.
- 2.2.2 **DRY CLEANING** - a process of removing dirt and stains from linens, leathers, fabrics and furs using liquid solvents other than water.
- 2.2.3 **LAUNDROMAT** - a type of neighborhood laundry establishment, which provides coin-operated washing machines, dryers and other laundry facilities.
- 2.2.4 **LINEN-SUPPLY** - a type of laundry which supplies uniforms and other linens to such customers as offices, restaurants, hotels, motels, manufacturing plants, automotive shops and hospitals. It also supplies linens such as shop towels, dust mops, dust rags and other dust control items used in industry and other businesses.
- 2.3 **COMMUNITY LAUNDRY AREA** - a place provided with laundry stalls and other sanitary facilities where the public can wash their clothes for free or a certain fee.
- 2.4 **CONTAMINATION** - the presence of pathogenic organisms, suspended air emissions, heavy metals, chemicals and other pollutants in an article or substance.
- 2.5 **DEPARTMENT** - the Department of Health.
- 2.6 **DETERGENT** - any of the various surface-active agents used in removing dirt or other foreign matter from soiled surfaces such as clothes and linens and retaining it in suspension.
- 2.7 **ESTABLISHMENT** - a collective term construed to include all public laundry as well as laundry section in institutions which includes its premises, facilities, equipment and appurtenances thereto.
- 2.8 **FOOT CANDLE** - a unit of illumination on a surface that is everywhere one foot from a uniform source of light of one candle and equal to one lumen per square foot. One foot candle is equal to 10.76 lux.
- 2.9 **HEALTH CERTIFICATE** - a certification in writing, using the prescribed form, issued by the local health officer to a person employed in the establishment after passing the required physical and medical examinations and immunizations.
- 2.10 **LOCAL GOVERNMENT UNIT** - the local political subdivision which refers to the province, city, municipality or barangay.

- 2.11 **LOCAL HEALTH OFFICER** - the provincial, city or municipal health officer.
- 2.12 **LOCAL HEALTH OFFICER** – the provincial, city or municipal health officer.
- 2.13 **OPERATOR** – the owner, manager, administrator, or the actual holder of the sanitary permit of the establishment.
- 2.14 **PUBLIC LAUNDRY** - a laundry established and operated for, and open to the public and/or to an exclusive clientele.
- 2.15 **SAFETY** – the state of being free from harm or danger which can cause accident or disease.
- 2.16 **SANITARY ENGINEER** – a person duly registered with the Board of Examiners for Sanitary Engineers (Republic Act 1364) who heads and/or works with the sanitation division/section/unit of the local health office or employed with the Department of Health or its regional health offices.
- 2.17 **SANITARY PERMIT** – the permission or certification in writing by the local health officer or in his absence, by the chief of the sanitation division/section/unit attesting that the establishment complies with the existing sanitation requirements upon evaluation or inspection conducted in accordance with Presidential Decree Nos. 522 and 856 and its implementing rules and regulations and local ordinances.
- 2.18 **SANITATION INSPECTOR** - a government official or personnel employed by the local government unit, who enforces sanitary rules, laws and regulations and implements environmental sanitation activities under the supervision of the local health officer or sanitary engineer.
- 2.19 **SECRETARY** – the Secretary of Health.
- 2.20 **SOIL** – visible dirt or debris such as organic matters, organic substances, residual soil, blood and body substances which may protect, harbor or assist the growth of microorganisms.
- 2.21 **SOLID WASTE/REFUSE** – all organic or inorganic non-liquid, and non-gaseous portions of the total waste mass. It consists of all putrescible and non-putrescible solid materials except for body waste.
- 2.22 **SOLID WASTE MANAGEMENT** – an integrated system, approach or process on the generation, segregation, storage, collection, transport, processing, recycling, recovery and final disposal or containment of solid waste.

- 2.23 **SOLVENT** - a common term of liquid substance used in dry cleaning process in place of water.
- 2.24 **STERILIZATION** - any chemical or physical process which kills and destroys all microorganisms.
- 2.24 **VERMIN** - a group of insects such as flies, mosquitoes, cockroaches, lice, bugs, or small animals such as mice and rats which are vector of diseases.
- 2.25 **VERMIN ABATEMENT PROGRAM** - a series of preventive and control procedures and activities for vermin control.

SECTION 3. SANITARY PERMIT

- 3.1 The establishment shall secure a sanitary permit (EHS Form No. 101) issued by the local health officer before it could operate.
- 3.2 Any extension or additional construction or alteration in the establishment shall require a new sanitary permit before it could operate.
- 3.3 **Application or Renewal of the Sanitary Permit**
 - 3.3.1 The application or renewal of the sanitary permit shall be filed with the local health office having jurisdiction over the establishment utilizing EHS Form No. 110.
 - 3.3.2 The sanitary permit shall be issued upon compliance to at least a satisfactory rating utilizing the sanitary inspection of public places establishment form (EHS Form No. 103-B).
- 3.4 **Fees.** The fees shall be paid to the local government office upon application, renewal, and noting of sanitary permit. The amount of fees shall be set through local ordinance.
- 3.5 **Noting of Permit.** Within fourteen (14) working days after any change in ownership or occupancy of the establishment, the new operator shall apply to the local health office to have such change noted in the records and permit certificate and shall pay the corresponding fee in respect for such noting.
- 3.6 **Validity.** The sanitary permit shall be valid on the day of issuance until the last day of December of the same year, and shall be renewed every beginning of the year thereafter.
- 3.7 **Revocation/Suspension.** Upon the recommendation of the local health officer, the sanitary permit shall be suspended or revoked by the local health authority upon violation of any sanitary rules and regulations.

- 3.8 **Posting of Permit.** The sanitary permit shall be posted in a conspicuous place of the establishment for public information and shall be available for inspection by authorized health and other regulatory personnel.

3.9 Record of Sanitary Permit

- 3.9.1 Every local health office shall keep a record of all establishments which have been issued a sanitary permit and renewal thereof.
- 3.9.2 The record shall be in every case show the following:
 - a. The name and address of the operator;
 - b. The location of the establishment;
 - c. The nature and kind of business for which the permit has been issued;
 - d. The date the first permit was issued and the dates of any renewal thereof;
 - e. Every change of occupation or management of the establishment since the first permit was issued;
 - f. The sanitary conditions under which the permit was issued or any renewal thereof granted; and
 - g. The revocation of the permit.
- 3.9.3 The record shall be available at all reasonable times for inspection by any authorized officer of the Department of Health or local government unit.

SECTION 4. SANITARY REQUIREMENTS FOR PERSONNEL

4.1 Health Certificate

- 4.1.1 Any person who intends to work in the establishment shall be required to secure a health certificate (EHS Form No. 102-A, cream in color or EHS Form No. 102-B, light green in color) issued by the local health officer.
- 4.1.2 The health certificate shall be renewed at least once a year or as often as required by local ordinance.

4.1.3 The health certificate shall be clipped visibly in the upper left front portion of the uniform or garment worn by the employee while working. When such condition is not practical due to the nature of the work in the establishment, the health certificate shall be made available upon inspection.

4.1.4 Health certificates are non-transferable.

4.2 Personal Health and Hygienic Practices

4.2.1 Employees of the establishment shall at all times observe good personal hygiene such as, but not limited to, the following:

- a. Wearing of clean appropriate working garments including the wearing of caps, aprons, gowns, masks, rubber gloves, safety goggles and gadgets in areas required by health and safety personnel;
- b. Washing hands with soap and water before and after working, after smoking, after using the toilet, after coughing, sneezing into hands, or as often as necessary to remove dirt and contaminants; and
- c. Other hygienic practices called for the nature of work in the establishment.

4.2.2 Employees of the establishment shall at all times observe personal health and safety practices at the working area such as, but not limited to, the following:

- a. No smoking of tobacco;
- b. No drinking of alcoholic beverages;
- c. No spitting or blowing of nose;
- d. No littering; and
- e. Other personal health and safety practices called for the nature of work in the establishment.

4.2.3 Personnel suffering from a communicable or contagious disease or severe respiratory infection (lots of coughing, sneezing, or nasal drainage) shall be immediately reported to the operator and referred for treatment.

4.2.4 No personnel with open wounds or break on the skin found on exposed areas of the body shall be allowed to work or come directly or indirectly in contact with the linen until the lesions have properly healed.

4.3 Personal Protective Equipment (PPE)

The necessary personal protective equipment shall be provided by the operator and used by every worker in accordance with the provisions of Chapter VII - "Industrial Hygiene" of the Code on Sanitation of the Philippines (P.D. 856) and its implementing rules and regulations and shall be in accordance with the Occupational Safety and Health Standards formulated by the Department of Labor and Employment under the Labor Code of the Philippines.

SECTION 5. SANITARY FACILITIES REQUIREMENTS

5.1 Water Supply

5.1.1 The drinking water supply for establishments covered under these implementing rules and regulations shall conform with Chapter II – "Water Supply" of the Code on Sanitation of the Philippines (P.D. 856) and its implementing rules and regulations and the Philippine National Standards for Drinking Water.

5.1.2 All drinking water sources shall have a certificate of potability of drinking water issued by the Secretary of Health or duly authorized representative. Samples from drinking water supplies shall be submitted by the operators of the establishments to the Department of Health accredited laboratories once a year for physical and chemical examinations and every six months for bacteriological examinations or as often as possible as determined by the local health office.

5.1.3 Sources either from private or public water supplies shall be potable and capable of supplying the minimum daily water demand of forty (40) liters per capita per day with an adequate pressure of 138 KPa (20 psi). The suggested minimum demand for laundering shall be as follows:

- a. Complete washing : 37 to 50 liters of water per kilogram of clothes or linens.
- b. For steam laundry : 13 to 17 liters of water per kilogram of clothes or linens

5.1.4 The plumbing system for water supply of the establishment shall be in accordance with the provisions of the National Plumbing Code of the Philippines.

- 5.1.5 Water to be used for drinking and laundering that is not supplied from a piped-water supply system shall be handled, transported, dispensed in a sanitary manner and shall be stored in a separate tank, reservoir or container approved by the local health officer.
- 5.1.6 If drinking fountains are provided, they shall be of approved angle-jet type.
- 5.1.7 In case bottled water is served to personnel or customers, it shall come from an approved source and shall be in accordance with the Department of Health Administrative Order No. 18-A, s. 1993 entitled "Bottled Drinking Water" and shall be dispensed only from the original container filled by the supplier.
- 5.1.8 If water-cooling device is provided, it shall be of a type in which ice produced by such device does not come in contact with water.
- 5.1.9 Ice coming from ice-making dispensing unit of the establishment shall be manufactured from an approved and potable water supply, stored and handled in a sanitary manner. Adequate and acceptable ice storage and dispensing utensils shall be provided and properly used. Ice-making machines shall be placed in a protected place. Ice storage bins shall only be used for its intended purpose.

5.2 Food and Drinks

All food and drinks handled, stored, prepared, or served in the establishment or within its premises shall be in accordance with Chapter III – "Food Establishments" of the Code on Sanitation of the Philippines (P.D. 856) and its implementing rules and regulations.

5.3 Sewage Disposal and Drainage

- 5.3.1 All sewage from the plumbing system of the establishment shall be discharged to the public sewer system, or in the absence thereof in a manner complying with Chapter XVII – "Sewage Collection and Disposal, Excreta Collection and Drainage" of the Code on Sanitation of the Philippines (P.D. 856) and its implementing rules and regulations.
- 5.3.2 The effluent quality to be discharged from the establishment shall meet the minimum standards and requirements set by the Department of Environment and Natural Resources and all other concerned regulatory agencies.
- 5.3.3 The plumbing system for sewage disposal and storm water drainage of the establishment shall be in accordance with the pertinent provisions stated in the National Plumbing Code of the Philippines.

- 5.3.4 The establishment shall be provided with an approved and efficient wastewater treatment process that will include primary and secondary treatment process. Plans and locations of such treatment process shall be approved by the local health officer with the recommendation of the sanitary engineer.

5.4 Solid Waste Management

- 5.4.1 The segregation, storage, collection, transport and disposal of refuse shall be in accordance with Chapter XVIII – "Refuse Disposal" of the Code on Sanitation of the Philippines (P.D. 856) and its implementing rules and regulations and other existing regulatory laws and local ordinances.
- 5.4.2 An effective information and awareness campaign and program on proper disposal of refuse including the color coding of trash bags shall be done in the establishment.
- 5.4.3 Trash bags shall be of preferable thickness to accommodate the weight and type of refuse during handling without rupturing.
- 5.4.4 Refuse containers shall be strategically located in the establishment. It shall be firmly secured in place to avoid accidental knockdown.
- 5.4.5 All rooms of the establishment shall be provided with two (2) refuse receptacles or containers made of impervious materials, one for biodegradable and one for non-biodegradable wastes. The receptacles or containers shall be lined with black plastic trash bags for non-biodegradable and green plastic trash bags for biodegradable materials.
- 5.4.6 All refuse receptacles or containers shall be provided with tight-fitting lids or covers, so constructed and maintained as to be vermin-proof and easily cleaned.
- 5.4.7 All refuse shall be emptied daily or more frequently as necessary through the collection system or by any approved sanitary method.
- 5.4.8 All refuse receptacles or containers are required to be thoroughly cleaned and preferably disinfected after being emptied. The washed water from the cleaning procedure shall be disposed to a proper wastewater disposal system.
- 5.4.9 Separate storage room/bin for dry and wet refuse shall be provided. It shall be cleaned and disinfected after every collection.

- 5.4.10 Storage of refuse shall be inaccessible to vermin in order to avoid becoming a potential vermin attractant and harborage.
- 5.4.11 The prohibition of littering shall be strictly enforced and the information and awareness regarding such shall be done in the establishment.
- 5.4.12 Contaminated linens and other biomedical waste which are subjected for disposal, recycling or reuse shall be based on the guidelines and standards contained in the Manual for Hospital Waste Management formulated by the Department of Health.
- 5.4.13 Recycling, reuse, recovery and disposal of linens and other materials produced from the laundry operation shall be in accordance with Chapter XVIII – “Refuse Disposal” of the Code on Sanitation of the Philippines (P.D. 856) and its implementing rules and regulations and other existing regulatory laws and local ordinances.
- 5.4.14 All refuse contaminated by chemical substances, hazardous and nuclear wastes shall be disposed of in accordance with Chapter XVIII – “Refuse Disposal” of the Code on Sanitation of the Philippines (P.D. 856) and its implementing rules and regulations, Republic Act 6969 - “Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990”, and the implementing rules and regulations of the Philippine Nuclear Research Institute and other existing regulatory laws and local ordinances

5.5 Vermin Control

- 5.5.1 The operator of the establishment shall maintain a vermin abatement program which shall conform to Chapter XVI – “Vermin Control” of the Code on Sanitation of the Philippines (P.D. 856) and its implementing rules and regulations.
- 5.5.2 The storage, handling, and application of pesticide shall be in accordance with Chapter XVI - “Vermin Control” of the Code on Sanitation of the Philippines (P.D. 856) and its implementing rules and regulations, and other pertinent laws, rules and regulations of the Fertilizers and Pesticides Authority and other pertinent laws and local ordinances.
- 5.5.3 During vermin control operations, all clothes and linens shall be covered and isolated to prevent contamination.
- 5.5.4 The growth of bush, weed and grass within the establishment shall be controlled to prevent the breeding and harborage of vermin and other harmful insects or animals (e.g. spiders, scorpions, or snakes).

5.5.5 Places or rooms in the establishment used in the processing and storing of clean linens shall be effectively screened with a no. 16-meshscreen unless otherwise air-conditioned.

5.6 Toilet, Bathroom and Handwashing Facilities

5.6.1 Adequate number of plumbing fixtures shall be provided to all persons in the establishment. The minimum appurtenances in a sanitary facility shall be provided in accordance with the table below:

TABLE 1. MINIMUM NUMBER OF PLUMBING FIXTURES FOR EMPLOYEES AND CUSTOMERS

| Number Of Personnel/ Customer | Toilet Bowl | | Urinal | Lavatory | | Showers | |
|---|-------------|--------|--------|----------|--------|---------|--------|
| | Male | Female | Male | Male | Female | Male | Female |
| Below 30 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 30 to 49 | 1 | 2 | 1 | 2 | 2 | 2 | 2 |
| 50 to 99 | 2 | 3 | 2 | 3 | 3 | 3 | 3 |
| For every additional 60 persons | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Provide one (1) additional fixture for the use of differently-abled persons | | | | | | | |

- 5.6.2 Separate clearly-marked toilet facilities for male and female shall be provided.
- 5.6.3 A minimum floor area of 1.20 square meters (12.91square feet) with a minimum dimension of 0.90 meter (2.95 feet) shall be required for all toilet and bathroom facilities. Clear distance measurements shall be made on all areas and dimensions.
- 5.6.4 Toilets and bathrooms shall be properly located, lighted, and ventilated. It shall be located where personnel and customers can easily access it.
- 5.6.5 Proper maintenance, cleaning and disinfecting of toilets and bathrooms shall be done regularly.

5.6.6 Toilet paper and paper holders, soap, soap dispensers, paper towels and other toilet accessories shall be supplied at all times. Paper towels or mechanical hand-drying machine shall be used for hand drying. Mirrors shall be installed in toilet rooms facilities.

5.7 Changerooms and Lockers

5.7.1 The establishment shall provide adequate number of lockers and a sufficient area of changerroom separately for male and female employees.

SECTION 6. PRESCRIBED REQUIREMENTS FOR CONSTRUCTION

6.1 General Requirements

6.1.1 The policies, plans, standards, and guidelines on building design, construction, use, occupancy and maintenance shall be in accordance with the provisions of the National Building Code of the Philippines (P.D. 1096) and its implementing rules and regulations and other existing local laws and ordinances.

6.1.2 A person or group of persons, or entity who intends to construct, operate, alter, or renovate an establishment covered under these implementing rules and regulations shall first submit the plans and specifications to the local health officer for review and approval. All plans shall be submitted in duplicate copies.

6.1.3 The application for permit to construct, operate, alter or renovate such establishment shall be written on such forms issued by the local health office together with other supporting documents which are necessary for proper review of plans.

6.1.4 The establishment shall be built or renovated in accordance with the approved plans unless the local health officer has given approval of changes in writing. The operator shall notify the local health officer at specific predetermined stages of construction and at the time of its completion and to permit inspection of the establishment during and after construction.

6.1.5 The new establishment or portions of existing establishment that have been altered or renovated shall not be placed in operation until such inspection shows compliance with the requirements of these rules and regulations.

6.2 Walls, Partitions and Ceilings

6.2.1 Walls or wall coverings shall not have open spaces or cracks that would provide harborage of vermin.

6.2.2 Walls and partitions inside the sanitary and laundry facilities shall be made of smooth and impervious material or coverings, such as ceramic glazed tiles, with a minimum height of two (2) meters (6.56 feet) starting from the floor. All walls that exceeds the said height shall be made of impervious, smooth and light-colored material.

6.2.3 Partition walls between water closets shall have a height of at least two (2) meters (6.56 feet) and terminates thirty (30) centimeters (1 foot) above the floor.

6.2.4 All ceilings in the sanitary facilities shall be made of smooth, light colored and non-toxic material.

6.3 Windows and Doors

6.3.1 Rooms which are not provided with artificial ventilation system shall be provided with window/s with opening space of not lesser than ten percent (10 %) of the floor area of the room and which shall open directly to a clear space.

6.3.2 Windows of toilet rooms shall be so located above eye-level and shall be provided with No. 16-meshscreen unless otherwise air-conditioned.

6.3.3 All doors shall open outward, shall be self-closing and made of easily-cleaned, light-colored, smooth, non-toxic and rust-proofed materials.

6.4 Floors

6.4.1 All floors shall be constructed of concrete or any impervious, easily cleaned and non-toxic materials.

6.4.2 Floors of the laundry area which are subjected to frequent wetting shall have a fairly smooth surface and properly sloped (at least 2%) towards a drain. Floor drains shall be equipped with a metal strainer or cover.

6.4.3 Floor coverings such as vinyl tiles, wood parquet, linoleum, carpets, or any other similar materials shall be prohibited in the laundry area or in areas subjected to frequent wetting.

6.4.4 There shall be sufficient floor space for comfort and for carrying out duties effectively and efficiently. Working spaces, stairways, aisles, or any passageways shall have at least a dimension of 1.20 meters to permit free unobstructed movement of persons.

6.5 Lighting

6.5.1 All areas in the establishment shall be properly lighted, either by natural or artificial lights, or both.

TABLE 2: MINIMUM STANDARDS FOR ILLUMINATION

| AREA | MINIMUM ILLUMINATION | |
|---|----------------------|-----------|
| Hallways, exits, stairways and landing (on floor), elevators, escalators and dining rooms | 20 foot candles | 215.2 Lux |
| Locker rooms, toilets and bathrooms | 10 foot candles | 107.6 lux |
| Kitchens, storage rooms, supply rooms | 20 foot candles | 215.2 lux |
| Outdoor pathways | 2 foot candles | 21.52 lux |
| Working area where seeing tasks requiring discrimination of fine details under conditions of fair contrast and where the nature of work is very exact and prolonged | 100 foot candles | 1076 lux |
| Working area where seeing tasks requiring discrimination of details over prolonged periods of time and under conditions of moderate contrast | 50 foot candles | 538 lux |
| Working area where casual seeing tasks not involving discrimination of fine details | 10 foot candles | 107.6 lux |
| Working area where rough seeing tasks not requiring critical seeing | 5 foot candles | 53.8 lux |

6.5.2 Supplemental lighting shall be added where the tasks require more light than is required by the general illumination.

6.5.3 Lighting shall be reasonably free from glare and evenly distributed to avoid shadows.

6.5.4 The intensity of the required illumination inside the establishment shall be maintained at a point 76.20 centimeters (30 inches) above the floor.

6.5.5 There shall be provisions of sufficient lighting fixtures on open areas capable of illuminating dark places in the establishment especially at night.

6.5.6 Switches of lighting fixtures shall be conveniently located.

6.5.7 The level of illumination of other areas not otherwise mentioned shall be of such intensities as may be required by the local health officer concerned as recommended by the sanitary engineer.

6.6 Ventilation

6.6.1 An appropriate and efficient natural and/or mechanical ventilation system shall be provided in all areas of the establishment to prevent excessive temperature, moisture, and humidity as well objectionable odors, fumes and impurities produced by the laundry process. Mechanical device such as an exhaust fan, exhaust duct, air-filtration unit, dehumidifier and an air-conditioning system shall be provided in areas where necessary.

6.6.2 When natural ventilation is provided, rooms intended for use shall be provided with a window or windows with a total free area of openings equal to at least ten percent (10 %) of the floor area of the room, and such window shall open directly to a clear space.

6.6.3 In the absence of effective natural ventilation, a mechanical ventilation system shall be provided in places and areas of the establishment that will maintain the temperature between 25°C to 28°C and a relative humidity from 40% to 60%. All other ventilation requirements shall be as follows:

a. **Soiled-Linen Sorting Room.** Provide an exhaust fan with a minimum fan diameter of 25.40 centimeters per 35 cubic meter room volume (or equivalent minimum cubic meter of air per minute at 6 to 10 air changes per hour) discharged to a clear space without recirculation of used air. The ventilation shall provide an air flow from clean linen area to soiled linen area.

b. **Washing and Drying Room.** Provide an exhaust fan with a minimum fan diameter of 15.24 centimeters per 35 cubic meter room volume (or equivalent minimum cubic meter of air per minute at 2 to 5 air changes per hour).

- c. **Clean-linen Sorting and Storage Room.** Provide an exhaust fan with a minimum fan diameter of 15.24 centimeters per 35 cubic meter room volume (or equivalent minimum cubic meter of air per minute at 2 to 5 air changes per hour).
 - d. **Ironing and Mending Room.** Provide an exhaust fan with a minimum fan diameter of 25.40 centimeters per 35 cubic meter room volume (or equivalent minimum cubic meter of air per minute at 6 to 10 air changes per hour).
 - e. **Chemical Storage and Supply Room.** Provide an exhaust fan with a minimum fan diameter of 25.40 centimeters per 35 cubic meter room volume (or equivalent minimum cubic meter of air per minute at 6 to 10 air changes per hour).
 - f. **Kitchen and Dining Room.** Provide an exhaust fan or blower with a minimum fan diameter of 25.40 centimeters per 35 cubic meter room volume (or equivalent minimum cubic meter of air per minute at 2 to 5 air changes per hour).
 - g. **Offices and Study Rooms.** Provide an exhaust fan with a minimum fan diameter of 15.24 centimeters per 35 cubic meter room volume (or equivalent minimum cubic meter of air per minute at 2 to 5 air changes per hour).
 - h. **Toilet and Bathroom.** Provide an exhaust fan with a minimum fan diameter of 15.24 centimeters per 10 cubic meter room volume (or equivalent minimum cubic meter of air per minute at 2 to 5 air changes per hour). Windowless bathrooms shall be provided with mechanical exhaust system that is connected to the light switch.
- 6.6.4 Air circulation of the room of the establishment shall be supplied through air inlets arranged, located, and equipped so that the personnel, guests, and visitors are not subjected to air velocities exceeding 1.02 meter per second.
- 6.6.5 The ventilation of other areas not otherwise mentioned shall be of such capacity that will be required by the local health officer concerned.

6.7 Sound and Vibration

- 6.7.1 Excessive noise and vibration produced within the establishment shall conform with Chapter XIX - "Nuisances and Offensive Trades and Occupations" and Chapter VII - "Industrial Hygiene" of the Code on Sanitation of the Philippines (P.D. 856) and its implementing rules and regulations, the Occupational Health and Safety Standards formulated by the Department of Labor and Employment and other existing laws, rules and regulations.

SECTION 7. SPECIAL PROVISIONS FOR COMMUNITY LAUNDRY AREA

7.1 Site Requirements

- 7.1.1 The area provided for a community laundry shall be at least 500 square meters and located only in places designated under existing zoning laws and ordinances. Where no zoning law or ordinance exists the local health officer concerned shall determine the suitability of the location.
- 7.1.2 The establishment shall not be located in areas prone to flooding and other hazards.
- 7.1.3 Accessibility of the establishment to national roads and transportation shall be considered.

7.2 Prescribed Requirements for Construction

- 7.2.1 There shall be an adequate number of stalls provided for each person. The total area to be afforded for stalls shall not be more than forty percent (40 %) of the total community laundry area.
- 7.2.2 The minimum area for each stall shall be two (2) square meters (21.52 square feet) with no dimension lesser than 1.3 meters.
- 7.2.3 Each stall shall be divided by partitions having a minimum height of 1.0 meter (3.28 feet) and providing sufficient clearance from the ceiling to facilitate free movement of air within the laundry area.
- 7.2.4 Each stall shall be provided with two (2) laundry trays/sink equipped with a stopper.
- 7.2.5 The top of the laundry tray/sink shall be elevated to at least 0.9 meter (2.95 feet) from the floor.

- 7.2.6 One movable faucet which can be directed to and supply either of the two tray shall be provided. There shall be one hose bibb conveniently placed and located 0.3 meter above the floor level along the side of the stall
- 7.2.7 Trench drain with grating cover connected to an approved wastewater disposal system shall be provided for each stall.
- 7.2.8 There shall be no toilet and bathroom facility that shall open directly towards any laundry stall.
- 7.2.9 The aisles between laundry stalls shall have a minimum width of 1.5 meters (4.92 feet) to facilitate smooth flow of persons in the laundry area.
- 7.2.10 The aisles shall be 0.1 meter (0.328 feet) higher than the floorings of the laundry stalls.

SECTION 8. SANITARY REQUIREMENTS FOR LAUNDRY SERVICES

8.1 General Requirements

- 8.1.1 The establishment shall be located only in places or areas designated under existing zoning laws and local zoning ordinances. Where no zoning law or ordinance exists the local health officer concerned shall determine the suitability of the location.
- 8.1.2 The establishment shall be maintained clean and sanitary at all times. Due care shall be employed in proper handling, cleaning, washing, sanitizing, storing and transport of linen and other washable goods in order to prevent infection or contamination.
- 8.1.3 The establishment shall provide adequate and efficient laundry equipment and facilities. Laundry facilities and equipment shall have a regular maintenance, cleaning, and disinfection.
- 8.1.4 The laundry operation (collection, sorting, washing, ironing, and folding) shall be done in such a manner so as to produce top quality work in the most efficient manner possible.
- 8.1.5 All the personnel or workers engaged in the laundry process shall observe and ensure hygienic practices and proper procedures in the laundering of linens and other washable cloths.

8.2 SORTING OF LINENS

- 8.2.1 There shall be a coding or marking system for sorting, washing, storage, and delivery of linens. The marking or coding system shall be done utilizing color codes, labels, tags, or print on bags or containers.
- 8.2.2 All personnel and worker shall be fully aware and properly informed in the adoption and implementation of this marking or coding system. This marking or coding system when employed shall be made easily and readily visible, identified and understood by persons engaged in the processing of linens.
- 8.2.3 Sorting of linens shall be employed to prevent cross contamination or losses. Sorting of linens shall be done according to the coding or marking system, degree of soilage (heavily-soiled or light-soiled), color and rate of colorfast, size, type of fabric, specified time for washing, or extent or degree and type of contamination.
- 8.2.4 Sorted linens shall be properly handled during collection with minimum agitation and shaking as possible. Due care must be employed to prevent the contact of soiled linens from any other surface except from the soiled linen bag or washer.

8.3 Linen Bags and Linen Carts

- 8.3.1 There shall be an exclusive laundry bag or container made of impervious, non-toxic, rust-proof, leak-proof and easily cleaned material used to store dirty linens. Small-sized laundry bag or container (not greater than 0.3 cubic meter or about 90 centimeters by 60 centimeters by 50 centimeters) are much preferable than big-sized laundry bag or container or to which it shall fit to an existing laundry chute. Reusable soiled-linen bags or containers shall be cleaned and sterilized after every use.
- 8.3.2 Linen carts shall be used for collection and delivery of linen-filled laundry bags which shall be of two types: soiled-linen cart and clean-linen cart. Both carts shall be used for its exclusive purpose.
- 8.3.3 Linen carts shall be made and constructed with an impervious, easily cleaned and movable, rustproof and non-toxic material. Linen carts shall be enclosed and provided with a tight-fitted lid and shall always be kept closed except when placing or retrieving the linen-filled laundry bag.
- 8.3.4 All linen bags or linen carts shall be replaced with a new one when necessary.

8.3.1 There shall be a routine procedure to have an effective regular maintenance, cleaning and sterilization of every cart. Soiled-linen carts shall be cleaned and sterilized after each day's operation or more frequently when necessary. Clean-linen carts shall be cleaned and sterilized at least three times a week or more frequently when necessary.

8.4 Laundry Vehicles

8.4.1 Laundry trucks or vehicles shall be enclosed and provided with a tight-fitted door. The inside of the truck used to store the washable goods shall be made of impervious, non-toxic, rust-proof, smooth, leak-proof and easily-cleaned material.

8.4.2 There shall be a separate laundry vehicle used to transport soiled linen from clean linen. Contamination of clean linen shall be prevented.

8.4.3 The place inside the laundry vehicle where the linens are stored shall be separated and isolated from the driver and passenger seats.

8.4.4 There shall be an effective regular maintenance, cleaning and disinfection of every laundry vehicle, with the soiled-linen laundry vehicle done at the end of each day's operation or more frequently when necessary and the clean-linen laundry vehicle done at least three times a week or more frequently when necessary.

8.5 Laundry Rooms

8.5.1 There shall be a separate enclosed room for sorting and storing of soiled linens equipped with a separate system for air intake, filtration, and exhaust which shall be discharged to a clear space with a distance conforming to the requirements of the National Building Code of the Philippines.

8.5.2 The washing and drying room shall be enclosed and unallocated with other rooms and provided with tight-fitted doors and windows. This room shall always be kept closed except during receiving and delivering of laundered linens. Laundry equipment and facilities in contact with linens shall be cleaned and disinfected after each day's operation.

8.6 Laundering Process

8.6.1 The proper and suitable laundering and ironing instructions recommended and printed in the care label of each garment shall be strictly followed.

8.6.2 It is preferable to soak first in clean potable water for at least thirty (30) minutes all the soiled linens before the washing process. Rub liquid detergent on badly soiled areas before soaking. Remove stains as early as possible before the application of hot water.

8.6.3 There shall be at least two cycle of sudsing and four cycle of rinsing that shall be employed in the laundering process. All persons using laundry equipment shall follow the manufacturer's directions and guides on the proper use of washing machines.

8.6.4 The prescribed quantity, proper use and appropriate type of detergent shall be applied during the washing process. Avoid using detergent more than the prescribed amount so as not to produce excess suds that will make the rinsing process ineffective.

8.6.5 Bleaching solution, when used, shall be applied to white linens during sudsing cycle when the detergents have liquefied. It shall be important to know the type of bleach that shall be used to a certain type of fabric (e.g. sodium hypochlorite is not safe on silk and wool but slow acting hydrogen peroxide is safe on this type of fabric).

8.6.6 The water used for washing shall be adequate, potable and preferably soft and practically free from dissolved minerals. If possible, the temperature of water shall be adjusted to provide a beneficial effect on the efficiency of the laundering process; white cottons require hot water; colored fabrics, warm water; and wash-and-wear fabrics, cool water. Washing temperatures shall be defined as follows:

- a. Hot - Water temperatures higher than 46°C (115 °F).
- b. Warm - Initial water temperature of 30°C to 45°C (86°F to 113°F); water shall not be irritating to the skin.
- c. Cold - Initial water temperature up to 29°C (84°F); it shall be the same as the temperature of tap water.

8.6.7 The laundering process shall be appropriate to provide the maximum stain removal from the type of work being processed. The stain removal technique shall depend on the nature of the stain, the age of the stain, and the process to which the linen is subjected.

8.6.7 All linens with stains or in need of repair shall be separated and treated. Washed linens containing hard to remove stains shall be treated with an appropriate chemical stain remover and/or applied with a physical removal procedure. The common stain remover for different type of stains shall be as follows:

TABLE 3. COMMON STAIN REMOVAL PROCEDURES

| Type of Stain | Method of Removal |
|--------------------|--|
| Blood | Use cold water to sponge or soak the stain. Wash fabric in warm soapy water. |
| Chewing gum | Harden the gum with an ice cube, and rub it until it crumbles away, or use dry-cleaning solvent |
| Chocolate or cocoa | Scrape-off as much of the stain as possible with a dull knife. Then wash fabric in warm soapy water. Sponge stubborn stains on white fabric with hydrogen peroxide and rinse thoroughly. |
| Fruit | Sponge the stains with cold water as soon as possible. Then wash the fabric. If the stain remains, use bleach on it. Once a fruit stain has been ironed, it probably will not come out. |
| Grass | Sponge the stain with alcohol and then wash it. Or wash the stain with detergent and then wash the fabric in hot water. If this does not remove the stain, use a bleach. |
| Grease | Rub the stain with detergent and then wash the fabric in hot water. If this does not work, sponge the stain with a cleaning fluid. |
| Soft drinks | Sponge the stain with cool water. Dip white clothes into a chlorine bleach solution for 1 minute and then rinse well. Pour glycerin on colored fabrics. Let stand for 30 minutes and rinse with water. |
| Ice cream | Sponge the stain with cold water. Then wash the fabric in warm suds. |

- 8.6.9 There shall be proper training and awareness of counter personnel and technicians of the establishment regarding the identification of stain and the stain removal process.
- 8.6.10 Bluing, fabric softener, fluorescent brightener, and other additives shall be preferably added to the final rinsing process to improve odor, whiteness and quality of fabric.

8.7 Drying Process

- 8.7.1 The use of automatic controlled extractors shall be preferably used in partial drying to save time, reduce effort, and produce a better result.
- 8.7.2 The manufacturer's specification on the amount of linen and time required that may be loaded in the tumbler or extractor shall be followed.
- 8.7.3 A gas, steam, or electric-powered dryer with a temperature not less than 60°C (140°F) shall be used and is more preferable than a clothesline in urban areas because of the possibility of contamination due to presence of pollution.

8.8 Ironing and Finishing Process

- 8.8.1 There shall be a separate enclosed mending room used for repairs of damaged articles and provided with adequate trained personnel, necessary equipment, tools and mending supplies.
- 8.8.2 The finishing process (sorting, ironing, and storing of clean linens) shall be done in an efficient and hygienic manner, which shall protect the linens against contamination.
- 8.8.3 Ironing shall be used both for aesthetic and disinfection of linens.
- 8.8.4 Light-colored linens to be ironed shall be at least approximately 10% moisture by weight which shall be driven off by heat under pressure to produce a smooth and better result in linens. Multi-colored linens or garment's moisture content after wash shall be reduced as much as possible to avoid potential color transfer.
- 8.8.5 All washed and dried linens which are ironed and those linens which do not require ironing shall be 100 % dry to prevent fungal and other microbial growth.
- 8.8.6 Ironing shall be done according to the recommended instruction on the care label of each garment, extent of crumples and wrinkles, type of fabric (for temperature control), size or shape of linens, or according to the needs of the linen room.
- 8.8.7 Ironing shall be appropriately accomplished in either of various ways such as by using steam iron, flat-work iron, jack-iron press, or manual hand iron or combination of two or more ways as set by the laundry supervisor.

8.8.8 Ironing boards, press boards or any similar boards used for ironing and where linen comes in contact shall be clean and covered by light colored materials to prevent dirt or color transfer.

8.8.9 The folding procedure shall be according to the classification of the linen being processed and the needs of the linen room as set by the laundry supervisor.

8.8.10 Wash-and-wear fabrics may be folded rough-dry or placed in hangers, placed in a clean, impervious, smooth, easily cleaned, non-toxic and rustproof laundry bag or container prior to storage, pick-up or delivery.

8.8.11 There shall be personnel, facilities and equipment provided for the regular testing and inspection to assure that the laundering and disinfecting procedures done are effective and that the laundered linens are clean and free from stains, infectious, contagious, communicable and other type of health-hazard contaminants.

8.8.12 All final products shall be clean, soft, pleasing in appearance, free from stains, discoloration, holes, wear, tear, irritating odors and other contaminants.

8.9 Clean-linen Storage Room

8.9.1 Clean-linen shelves shall be cleaned and disinfected frequently and kept free from the accumulation of dust and other contaminants.

8.9.2 All clean-linen closet shall be kept close except during the placing and retrieving of clean linen. It shall be cleaned and disinfected frequently and kept free from accumulation of dust and other contaminants.

8.9.3 Storage rooms of linens shall be enclosed and provided with tight fitted doors.

8.9.4 There shall be regular and effective disinfecting procedures of storage rooms at least once a week done by trained personnel provided with adequate and effective disinfectants and disinfecting equipment.

8.9.5 Tables, racks and other surfaces or areas which comes in contact with clean linens shall be made of impervious, smooth, easily cleaned, non-toxic and rustproof material. It shall be cleaned and disinfected regularly at the end of each day's operation and in times of possible contamination.

9.1 Laundry from Hospitals and other Health-Related Institutions

9.1.1 Linen Supply

a. The linen service of the hospital or institution shall maintain an adequate supply of clean linen to meet the needs of the facility.

b. The minimum number of clothes and linens per cycle for a single bed in a hospital or any medical facility shall be; two (2) pieces of bed sheets, two (2) pieces of pillow cases, two (2) pieces of pillow cover, two (2) pieces of pillows, a piece of blanket, a piece of pants, a piece of camisa, a piece of towelette, and a piece of bath towel.

c. There shall be at least six (6) cycle capacity of clothes and linens per bed in the hospital or any medical facility: one (1) cycle is for the stock initially used by patients in the ward; one (1) cycle is prorated, one (1) cycle is for emergency use; one (1) cycle is washed in the laundry; and three (3) cycles are in the stock room.

d. There shall also be a minimum of six (6) cycle of specialized linens and clothes (such as ICU gowns, OR gowns, RR gowns, eyesheet, baby dresses, diapers, tray linings, flannel, draw sheets, etc.) depending upon the requirements for a certain category of the hospital (primary, secondary, or tertiary).

e. The changing of linens for beds and clothing of patient shall be based on existing regulation of the hospital or institution, or upon the request of the patient or his/her guardian.

9.1.2 Sorting of Linens

a. The hospital or institution shall adopt a coding or marking system for sorting, washing, storage and delivery, which may depend upon the following considerations: the place where the soiled linens are first collected; the type and degree of soilage or contamination of the soiled linen; the color and rate of discoloration of the linens; the size and density of the linens; the type of fabric used; and all other factors that may be common and frequent in hospitals and health-related institutions.

linen which linen from different areas of the hospital or institution shall be clearly labeled and identified and suitable precautions in handling and processing shall be taken into account especially those linen contaminated with infectious microorganisms.

9.1.3 Collection and Transport of Linen

- a. The soiled linens shall be collected in-situ, sorted as little as possible and shall be placed directly inside a marked or coded, clean, uncontaminated, impervious, non-toxic, leak-proof and rustproof laundry bag or container.
- b. As much as possible, pressing of the bag shall be avoided to prevent expelling of air coming from the bag.
- c. The soiled laundry bag or container shall always be kept tightly closed, using a disposable adhesive tape. It shall be open only during placing and removing of the soiled linens.
- d. The quantity of soiled linens to be placed in the laundry bag or container shall not exceed the 2/3 full capacity of the laundry bag or container.
- e. The collected laundry bags may be transported to the laundry area by using the soiled-linen carts or through the linen chute provided for each floor. All soiled-linen laundry bag shall be of appropriate size to fit inside a laundry chute.
- f. There shall be no soiled linens, soiled-linen laundry bag or container, or soiled-linen cart which shall enter or pass through clean linen processing or storage area. Otherwise, there shall be no clean linen, clean-linen laundry bag or container, or clean-linen laundry cart which shall enter or pass through soiled-linen processing area.
- g. All linen-chute doors shall be tight-fitted, self-closing, and located in separate, well-ventilated, fireproof rooms away from corridors, food preparation rooms, wards, and other uncontaminated area.
- h. Linen chutes shall be disinfected regularly. One of the procedures is by using a small pressurized spray tank with pump fitted with a hose of sufficient length which are able to reach the distance of about 6 meters (20 feet). The tank is filled with a germicide such as a non-corrosive diluted two percent (2%) orthophenolic solution which shall be sprayed perceptibly until all the surfaces become wet.

i. The bag or container containing the soiled linen shall be kept inside the room until the room-to-room collection schedule.

- j. Soiled linens that are not properly contained in a laundry bag shall not be directly placed or transported down through the linen chute.
- k. The soiled-linen cart shall be enclosed with a tight-fitted closing lid to prevent the possible dispersion and spread of contaminants to other areas during collection and transport of soiled-linen bag.
- l. There shall be a selected route in the transport of soiled linen which shall be away from critical nursing areas, food service areas and other clean and uncontaminated places in order to prevent microbial air contamination.

9.1.4 Special Handling of Contaminated Linen

- a. A suitable procedure shall be developed in coordination with the hospital's infection control committee on the proper handling, collection, transport, and processing of bio-hazard (isolation) linen.
- b. Linens from the emergency room, operating room, delivery room, nursery, isolation ward, communicable disease ward, surgery room, intensive care unit, laboratories and other rooms and areas which are possibly contaminated with contagious or communicable disease shall be separated and isolated from other linens.
- c. Linens coming from such areas shall be placed first in a water soluble linen bag before placing it in a soiled-linen bag. The water soluble linen bag shall be washed together with the infected linens without pre-sorting.
- d. Such linens shall be sterilized or subjected into the washing process utilizing hot water for at least 25 minutes in order to kill all of the microorganisms present in the linen. It shall be washed separately from other linens.
- e. The method of disinfection or sterilization to be used in linens shall be effective and appropriate to the type of microorganism that it will eradicate, the required time of contact, the pH and temperature of water or medium to be used, the concentration of the disinfectant, the presence of extraneous materials, and the degree of infection or contamination.

... consideration of disposal of linens shall be based on the duration of time the linen was used [usually six (6) months of continuous use], degree and type of stains or contamination, wear and tear, discoloration, and appearance.

9.1.5 Contracting Out Laundry Services

- a. All hospitals and other health-related institutions contracting out their laundry services shall follow all the pertinent provisions outlined herein and all other implementing rules and regulations of the Code on Sanitation of the Philippines (P.D. 856).
- b. Laundry service contractors shall handle and process linens from hospitals and other health-related institutions separately from linens coming from other establishments.
- c. All laundry equipment, facilities and mode of transport which comes in contact with linens from hospital and health-related institutions shall be cleaned and sterilized first before the processing of linens coming from a different source.

9.2 Laundry from Hotels, Motels, Lodging Houses, Resorts, Massage Clinics, and other Similar Establishments

- 9.2.1 Laundry from hotels, motels, lodging houses, resorts, massage clinics, and other similar establishments shall conform with the Code on Sanitation of the Philippines (P.D. 856) and its implementing rules and regulations.
- 9.2.2 The linen service shall provide an adequate and uninterrupted supply of clean linen to meet the needs of the institutional establishment.
- 9.2.3 There shall be separation of linens into different categories so as to minimize sorting and prevent cross contamination such as those coming from:
 - a. Food service areas such as kitchen, dining room, restaurant, bar, and other similar place;
 - b. Guest rooms; and
 - c. Uniforms, clothing, and personal linen of employees and guests.

- 9.2.4 Laundry contractors servicing such establishments shall conform to the pertinent provisions outlined herein and all other implementing rules and regulations of the Code on Sanitation of the Philippines (P.D. 856).

SECTION 10. SPECIAL PROVISIONS FOR COMMERCIAL LAUNDRY

10.1 Diaper-Supply Laundry Service

- 10.1.1 Laundry services specializing with the diapers for babies shall handle, sort, transport, launder and store such linens separately from other linens.
- 10.1.2 Washing and sterilizing procedures shall be effective to ensure the complete removal of soil waste, microorganisms, and other types of contaminant, which may remain in the diaper.
- 10.1.3 The establishment shall use detergents and disinfectants which are strong enough and effective yet shall not cause irritation of babies' tender skin.
- 10.1.4 There shall be a continuous supply of diapers on a regular schedule and the diaper laundry contractor shall avoid deprivation of supply to customers of such items.

10.2 Linen-Supply Laundry Service

- 10.2.1 The establishment shall provide continuous and regular delivery schedule of clean and uncontaminated linens based on the client requirements.
- 10.2.2 There shall be separate laundering of uniforms from offices and uniforms coming from hospitals and health-related institutions. The prevention of cross contamination between such linens shall be prevented.
- 10.2.3 The establishment shall provide separate handling, sorting, transport, laundering, and storage of linens and other materials used for cleaning purposes (e.g. mops, rags, mats, shop towels, etc.) from uniforms and other clothes worn by workers and employees.
- 10.2.4 The establishment shall adopt the most effective and feasible laundry process (e.g. the use of dry cleaning procedure for linens with great amounts of oils and grease, etc.) which shall be applicable to different types of soilage of linens.

- 10.2.5 There shall be additional equipment for the entrapment of oils, grease, other petroleum materials and coarse dirt or solids for an efficient wastewater treatment system.
- 10.2.6 Linens which shall be subject to dry-cleaning procedures shall conform to pertinent provisions of sub-section 10.4 of these implementing rules and regulations.
- 10.2.7 Linens which are not pleasing in appearance such as those with unremovable stains, discolored, worn-out or torn-out garments shall be discarded, condemned, recycled or otherwise disposed of in accordance with Chapter XVIII – “Refuse Disposal” of the Code on Sanitation of the Philippines (P.D. 856) and its implementing rules and regulations.
- 10.3 Laundromats**
- 10.3.1 There shall be an efficient and adequate number of laundry equipment and facilities provided in the establishment.
- 10.3.2 The complete laundry cycle done by the laundry machine operation shall be effectively clean without any visible sign of soilage or contamination. The drying process shall attain a 100 % dryness of all linens.
- 10.2.3 There shall be adequate number of personnel to entertain and attend to customers during the processing of his/her clothes and linens, for payment of the corresponding fee, and for security purposes.
- 10.2.4 There shall be a waiting lounge of adequate space and equipped with sufficient number of seats provided to all customers.
- 10.2.5 The loss or exchange of clothes or linens between customers shall be prevented.
- 10.2.6 Defective and inefficient laundry machines shall be removed and repaired or replaced with functional laundry machines.
- 10.4. Dry Cleaning Laundry Service**
- 10.4.1 An effective and suitable dry cleaning laundry procedure to provide clean garments and prevent damage/s shall be performed to conform to the type of fabric, designs and coloring materials of each garment.
- 10.4.2 There shall be an initial test before a linen or garment is subjected to the dry cleaning process such as test for color transfer, discoloration, or dye bleeding and other necessary tests.

- 10.4.3 It shall be necessary to use proper classification and specified duration of dry cleaning cycle, separation of dark-colored and light-colored garments, and degree of soilage for garments.
- 10.4.4 Finished linens or garments shall not have any chemical odor or residue retained before delivery to customers.
- 10.4.5 The establishment shall have adequate number of trained personnel, facilities and equipment for an efficient operation of the dry cleaning laundry process.
- 10.4.6 The operator of the establishment shall perform a preventive maintenance and weekly monitoring of the dry cleaning machines and other similar equipment as recommended or required by the equipment's manufacturer including the record keeping of such maintenance operations. (The outlined suggested maintenance procedures, and schedules for individual parts that are common to most dry cleaning equipment are given in Annex I).
- 10.4.7 Dry cleaning machines shall be tested for safety and certified by a nationally-recognized testing laboratory. It shall meet the minimum environmental standards.
- 10.4.8 Dry cleaning machines and other similar equipment shall be equipped with a spill containment system. Solvent storage containers shall be located around and within a spill containment area.
- 10.4.9 The entire dryer of the dry cleaning laundry process shall be vented through a carbon adsorber or equally effective control device and shall be regularly replaced (when the residue from the diatomaceous earth filter contains more than 25 kilogram of solvent per 100 kilogram of waste filter material).
- 10.4.10 Laundry establishments shall perform vapor and liquid leak detection tests weekly or as frequent as necessary and when such need arises as detected by a leak detection device or by a common sight, smell, or sound.
- 10.4.11 The establishment shall be provided with adequate number and effective dry cleaning chemical vapor leak detection device. The dry cleaning chemical vapor leak detection device shall pass the minimum standards required by a nationally-recognized testing laboratory.
- 10.4.12 During emergencies, leaks shall be controlled and contained as early as possible. There shall be preventive procedures and awareness program conducted by trained personnel.

10.4.13 Laundry chemicals which are proven risk to health and environment shall be phased-out in accordance with health and environmental laws, rules and regulations.

10.4.14 Discharge of solvents or dry cleaning chemicals and wastes through public sewerage or drainage system shall be prohibited. It shall be disposed of, irrespective of quantity, as hazardous waste, which shall be in accordance with the laws and regulations formulated by the Department of Environment and Natural Resources and other existing national and local laws, rules and regulations.

10.4.15 The Threshold Limit Value of solvents or dry cleaning chemicals shall conform to the Occupational Safety and Health Standards formulated by the Department of Labor and Employment.

SECTION 11. HEALTH AND SAFETY PROVISION

- 11.1 The health, safety and comfort of customers and employees shall be preserved and considered in the working environment.
- 11.2 Linens from hospitals and other health-related institutions shall be handled, sorted, laundered and transported exclusively and separately from linens coming from other sources.
- 11.3 There shall be a complete separation and laundering of linens for each establishment or source.
- 11.4 The establishment shall provide the minimum type and quantity of medicines, medical supplies, equipment and services for emergency purposes as follows:

TABLE 8. MEDICINES**

| MEDICINES | NUMBER OF WORKERS | | | | | |
|---------------------------------|-------------------|----------|------------|------------|-------------|-----------|
| | 1 to 50 | 51 to 99 | 100 to 199 | 200 to 600 | 601 to 2000 | 2001 & up |
| Topical Antiseptic, cc. | 60 | 60 | 60 | 120 | 240 | 240 |
| 70% Isopropyl Alcohol, cc. | 240 | 240 | 240 | 240 | 500 | 500 |
| Aromatic Spirit of Ammonia, cc. | 30 | 30 | 30 | 30 | 30 | 30 |
| Toothache drops, cc. | 15 | 15 | 30 | 30 | 30 | 30 |
| Hydrogen Peroxide Solution, cc. | 120 | 120 | 120 | 240 | 240 | 240 |
| Burn Ointment, tube | - | - | 1 | 1 | 1 | 1 |
| Analgesic/Antipyretic tablets | 10 | 10 | 10 | 20 | 30 | 40 |
| Anti-histaminic tablets | - | - | 10 | 20 | 30 | 40 |
| Antacid tablets | 10 | 10 | 10 | 20 | 30 | 40 |
| Anti-diarrhea tablets | 10 | 10 | 10 | 20 | 30 | 40 |
| Anti-spasmodic tablets | - | - | 10 | 20 | 30 | 40 |
| Anti-hypertensive tablets | - | - | 10 | 20 | 30 | 40 |
| Coronary vasodilator tablets | - | - | 10 | 20 | 30 | 40 |
| Anti-asthma tablets | - | - | 10 | 10 | 20 | 20 |
| Anti-hemorrhage tablets | - | - | 10 | 10 | 20 | 20 |

Note:** Any medicine supply prescribed in the table may be substituted with one of comparable effectiveness, and shall be replaced with the same quantity immediately after consumption.

TABLE 9. MEDICAL SUPPLIES AND EQUIPMENT**

| MEDICAL SUPPLIES/ EQUIPMENT | NUMBER OF WORKERS | | | | | |
|--|-------------------|----------------|------------------|------------------|-------------------|-----------------|
| | 1 to 50 | 51 to 99 | 100 to 199 | 200 to 600 | 601 to 2000 | 2001 & up |
| First Aid Pamphlet | 1 | 1 | 1 | 1 | 1 | 1 |
| First Aid Box | 1 | 1 | 1 | 1 | 1 | 1 |
| Thermometer | 1 | 1 | 1 | 1 | 2 | 2 |
| Stethoscope | - | - | 1 | 1 | 1 | 1 |
| Sphygmomanometer | - | - | 1 | 1 | 1 | 1 |
| Sterilized Gauze Pads | 5 | 5 | 5 | 10 | 20 | 20 |
| Gauze bandages, roll | 1 | 1 | 1 | 1 | 2 | 2 |
| Adhesive tape roll | 1 | 1 | 1 | 1 | 1 | 1 |
| Absorbent cotton | * | * | * | * | * | * |
| Bandage Scissors | 1 | 1 | 1 | 1 | 1 | 1 |
| Triangular Bandage | - | 1 | 1 | 1 | 2 | 2 |
| Safety Pins | - | * | * | * | * | * |
| Wooden Tongue Depressors | - | - | 100 | 100 | 100 | 100 |
| Hot Water Bag | 1 | 1 | 1 | 1 | 1 | 1 |
| Ice Bag | 1 | 1 | 1 | 1 | 1 | 1 |
| Disposable Hypodermic Syringes w/needles, 2.5 cc. | - | - | 10 | 10 | 10 | 20 |
| Rubber Tourniquet | 1 | 1 | 1 | 1 | 1 | 1 |
| Venoclysis set (IV tubing, butterfly) | - | 1 | 1 | 2 | 2 | 2 |
| Minor Surgical Instruments | - | - | * | * | * | * |
| Forceps | - | * | * | * | * | * |

| | | | | | | |
|---|---|---|---|---|---|---|
| Sterilizer | - | - | - | - | 1 | 1 |
| Waste Pail | 1 | 1 | 1 | 1 | 1 | 1 |
| Soap, Cake | * | * | * | * | * | * |
| Linens | - | - | - | * | * | * |
| Bed | - | - | - | 1 | 1 | 1 |
| Stretcher | - | - | - | 1 | 1 | 1 |
| Cabinet for medicines and supplies | - | - | 1 | 1 | 1 | 1 |
| Examining Table | - | - | - | 1 | 1 | 1 |
| Note: **Any medical supply/equipment prescribed in the table may be substituted with one of comparable effectiveness, and shall be replaced with the same quantity immediately after consumption. | | | | | | |

TABLE 10. MEDICAL FACILITIES

| MEDICAL FACILITY | NUMBER OF WORKERS | | | | | |
|------------------|-------------------|----------------|------------------|------------------|-------------------|-----------------|
| | 1 to 50 | 51 to 99 | 100 to 199 | 200 to 600 | 601 to 2000 | 2001 & up |
| Treatment room | - | 1 | 1 | 1 | - | - |
| Emergency Clinic | - | - | - | - | 1 | 1 |
| Dental Clinic | - | - | - | - | - | 1 |

- 11.5 In the absence of medical officer or staff, emergency telephone and other communication equipment shall be provided together with the line numbers of ambulance services, doctors, and hospitals which shall be posted conspicuously in the establishment.
- 11.6 There shall be provisions for emergency exits, lights, and power supply in the establishment.
- 11.7 No chemical listed as prohibited or banned by the Department of Environment and Natural Resources and other national and international regulations shall be used in the establishment.
- 11.8 The establishment shall adopt a pollution prevention program.
- 11.9 Preventive maintenance program for laundry equipment and facilities shall be done on a regular basis.
- 11.10 All dry cleaning establishment shall have a contingency plan which shall include trained personnel and necessary equipment to deal with possible waste-related emergencies or accidents.
- 11.11 No contaminated linen shall be reused, recycled, sold, disposed, stored or placed together with sterile linens.
- 11.12 Linens and other substances or materials contaminated with radiation or any radioactive material shall be handled, stored, transported, or otherwise disposed of in accordance with the laws, standards, and implementing rules and regulations of the Philippine Nuclear Research Institute, Department of Environment and Natural Resources and other existing laws, rules and regulations.

SECTION 12. INSPECTION AND EVALUATION

12.1 Responsible Officer

It shall be the duty of the local health officer to cause the inspection and evaluation of every establishment requiring a sanitary permit for its operations at least every three (3) months and to cause additional inspection and re-inspection and evaluation as deemed necessary for the enforcement of these rules and regulations.

12.2 Sanitation Inspection Fee

The fees payable on every inspection shall be of such amount prescribed by local ordinance.

12.3 Mission Order

- 1.2.3.1 The local health officer or the chief of the sanitation division/ section/ unit of the local health office, as the case may be, shall issue a mission order (EHS Form No. 112) for every sanitation inspection that will be conducted by the sanitary engineer/sanitation inspector.
- 1.2.3.2 The mission order must contain the date, mission order number and series, the name of the inspector and the I.D. number, the business name, address, category of establishment to be inspected and the scheduled dates of inspection. This must be shown to the operator of the establishment before any inspection is conducted. The immediate supervisor of the inspector shall monitor the enforcement of the mission order.
- 1.2.3.3 Sanitary inspection conducted without a mission order is prohibited.
- 1.2.3.4 The operator of the establishment shall report to the local health officer or chief of sanitation division/section/unit any unauthorized inspection that was conducted.

12.4 Uniform of Sanitation Inspector and Aids to Inspections

- 12.4.1 The sanitation inspector shall wear the prescribed uniform of the office with the proper identification card while conducting the inspection.
- 12.4.2 He shall likewise bring all the equipment and supplies needed in the inspection such as the inspection forms, clipboards, thermometers, flashlight, measuring tape, camera, light meter, water pressure gauge, chlorine residual and pH comparator kits, blacklight, food and drink sampling kit, copy of the sanitation laws, regulations, standards and other reference materials needed in the inspection.

12.5 Frequency of Inspection

- 12.5.1 The inspection shall be conducted at least once every three (3) months.

12.6 Recording of Inspection

- 12.6.1 The sanitary engineer/sanitation inspector shall keep a record of all his inspections or evaluation reports in an inspection form (EHS Form No. 103-B).
- 12.6.2 The sanitary engineer/sanitation inspector shall furnish the original of such report to the operator of the establishment.

12.6.3 Demerits entered in the appropriate column of the inspection form shall indicate that the item does not conform to the requirements of these regulations.

- a. The inspection form has twenty (20) items. Non-complying items are indicated with a (X). Every such item is weighted with a demerit of five (5). The rating of the establishment is therefore 100 less (number of demerits x 5). The result is expressed as a percentage (%) rating.

12.6.4 Sanitation Standard

- a. The percentage rating has an equivalent sanitation standard as follows:

| PERCENTAGE RATING | SANITATION STANDARD | COLOR CODE |
|-------------------|---------------------|-----------------|
| 90 - 100 % | Excellent | Luminous Green |
| 70 - 89 % | Very Satisfactory | Luminous Yellow |
| 50 - 69 % | Satisfactory | Luminous Red |

- b. Establishments with percentage rating below 50% shall be recommended for suspension of operation until compliance.
- c. Sanitation Standard Rating Sticker (SSRS) (EHS Form No. 104-A to 104-C) shall be posted in a conspicuous part of the establishment, preferably at the door, for guidance of the customers. It shall be updated once every three (3) months, unless revoked earlier.

12.6.5 The average sanitation standard of every establishment shall be evaluated by the local health officer/chief of sanitation division/section/unit every end of the year to determine its improvement/maintenance of rating.

12.7 Report of Inspection

12.7.1 The sanitary engineer/sanitation inspector who conducted the inspection shall complete the sanitary inspection report, and whenever an inspection form issued indicates non-complying items, he shall notify the operator of the corrections to be made and indicate a reasonable period for its compliance.

- a. The recommended corrective measures shall be specific in nature for the easy understanding and compliance of the operator of the establishment.
- b. Reasonable period for compliance or grace period shall be inclusive of Saturdays, Sundays and holidays.

12.7.2 The sanitary engineer/sanitation inspector who conducted the inspection shall likewise prepare a sanitary order (EHS Form No. 107) for approval by the local health officer or chief of the sanitation division/section/unit.

12.7.3 Within 48 hours of the inspection or evaluation, the original inspection report (EHS Form No. 103-B) and the sanitary order shall be furnished and acknowledged by the holder of the permit certificate, the operator of the establishment. The inspection report shall be personally delivered, or shall be sent through postal service and registered with return card.

12.8 Re-inspection

12.8.1 If upon re-inspection of the establishment after the deadline, the sanitary engineer/sanitation inspector have found that the correction has not been effected, he shall report to the local health officer who shall recommend to the local health authority the revocation of the sanitary permit.

12.8.2 A copy of the inspection form and any notice served shall, in all cases be filed and kept by the local health office and be available for inspection by authorized officials.

12.9 Service of Notice

12.9.1 Whenever an inspection or evaluation form indicates non-complying items, the local health officer shall serve to the operator a sanitary order requiring him, within the grace period stated in the order, to take such remedial action as may be specified therein.

12.9.2 In the event of non-compliance of the first sanitary order by the operator, the local health officer may serve a second notice.

a. Second Sanitary Order

- i. If the owner of the establishment needs additional time to comply with the first sanitary order, he shall request the local health officer in writing prior to the expiration of the said sanitary order, for an extension of the grace period. The local health officer, upon the recommendation of the sanitary engineer/sanitation inspector who conducted the inspection, shall act on such request.
- ii. Notice of Hearing (EHS Form No. 118). The local health officer shall call the operator to show cause, at a time and place stated in the notice, why the permit issued in respect of the establishment shall not be revoked.

12.10 Revocation of Permit

- 12.10.1 After prior notices and hearing as provided above, the local health officer, if satisfied that the terms of the two notices have not been complied with or that failure to comply therewith is not excusable, shall recommend to the local health authority the revocation of the said permit, or;
- 12.10.2 After the second sanitary order on an extended grace period, a re-inspection was conducted and still the owner/operator fails to comply with such order as reported by the sanitary engineer/sanitation inspector, the local health officer shall recommend to the local health authority the revocation of the sanitary permit without delay and shall inform other related agencies of the city or municipality of such revocation.
- 12.10.3 Lifting of suspension of permit may be recommended whenever the operator of the establishment complies with the notices.
- 12.10.4 The operator of the establishment may file a motion for reconsideration to the local health authority if he/she is not satisfied with the action of the local health officer.
- 12.10.5 The local health authority shall file court proceedings against any establishment continuously operating after the revocation of its permit.

12.11 Summary Suspension of Permits

Whenever the local health officer finds unsanitary or unhealthy conditions in the operation of an establishment which in his judgement constitute a substantial hazard to the public health, the local health officer may recommend the immediate suspension of the sanitary permit. Any person to whom such order is issued may file a written petition and shall be afforded a hearing within 48 hours.

12.12 Appeals

The person or panel conducting the hearing may confirm, modify or reverse the decision appealed from which decision shall be final.

12.13 Power of Entry

Any sanitary engineer/sanitation inspector or duly authorized officer of the Department of Health or the local health offices, upon presentation of proper credentials may at all reasonable times enter into the establishment or any premises used for any of the purposes referred to in these rules and regulations for the purpose of inspection or any other action necessary for administration of these rules and regulations.

12.13.1 Sanitary inspection shall be conducted by officials in accordance with Section 12, Sub-section 12.3 of these implementing rules and regulations.

12.13.2 Sanitary inspections shall be done preferably during the time when the establishment is in operation.

12.14 Hearings

The local health authority may conduct hearings regarding erring establishments to include appeals from establishments. The decision of the local health authority shall be deemed final and executory.

SECTION 13. RESPONSIBILITY OF THE LAUNDRY SUPERVISOR

The laundry supervisor shall:

- 13.1 Comply with all the requirements and standards as stated in these implementing rules and regulations;
- 13.2 Ensure the proper laundry operation and cleaning and care of laundry equipment and facilities;

- 13.3 Provide schedule of laundry operation for an adequate and continuous supply of linen and according to the needs of the user at all times;
- 13.4 Be knowledgeable in the selection, quantity, and proper use of laundry cleaning supplies;
- 13.5 Provide a schedule for regular maintenance and cleaning of equipment and facilities;
- 13.6 Evaluate the effectiveness of the laundry operation;
- 13.7 Ensure that the linen is safe for the customer's use; and
- 13.8 Ensure the state of sanitation of the establishment.

SECTION 14. RESPONSIBILITY OF THE OPERATOR

The operator shall:

- 14.1 Comply with all the requirements and standards as stated in these implementing rules and regulations;
- 14.2 Promote good personal hygiene among his employees and ensure updating of their health certificates;
- 14.3 Ensure the health, safety and comfort of all employees and customers in the establishment;
- 14.4 Provide adequate and appropriate sanitary facilities, personal protective equipment, and necessities to promote health, safety and sanitation in the establishment;
- 14.5 Renew the sanitary permit every year;
- 14.6 Assist the health authorities in conducting inspection of the establishment;
- 14.7 Ensure that the processes and materials used in the trade shall be environment-friendly; and
- 14.8 Provide regular training programs and instructions to all employees on health, sanitation and safety, conservation of the environment, and proper operation and maintenance of the establishment.

SECTION 15. RESPONSIBILITY OF THE LOCAL HEALTH OFFICER

The local health officer shall:

- 15.1 Facilitate the conduct of inspection and evaluation of the establishment at least once every three months to ascertain their compliance to these implementing rules and regulations;
- 15.2 Coordinate with the Department of Health or its regional health offices for information and guidance on the enforcement of these implementing rules and regulations;
- 15.2 Conduct information, education and advocacy campaigns within his area of jurisdiction in relation to the enforcement of these implementing rules and regulations;
- 15.3 Issue sanitary permit upon completion of the requirements stated in these implementing rules and regulations; and
- 15.4 Prescribed precautionary measures to the operator for the prevention of accidents or spread of contagious or communicable disease in the establishment.

SECTION 16. RESPONSIBILITY OF THE LOCAL HEALTH AUTHORITY

The local health authority shall:

- 16.1 Certify the passing of local laws and ordinances for the adoption, guidance and enforcement of these implementing rules and regulations and other pertinent rules and regulations of the Code on Sanitation of the Philippines (P.D. 856);
- 16.1 Assist the local health officer and other health regulatory personnel by providing necessary facilities, supplies, equipment, training programs and seminars for the promotion and improvement of the state of health and sanitation of the community;
- 16.2 Issue directives upon recommendation of the local health officer for the prevention and control of any untoward circumstances that may jeopardize public health and safety.

SECTION 17. PENAL PROVISION

17.1.1 Any person who shall violate, disobey, refuse, omit, or neglect to comply with any of the provisions of these implementing rules and regulations, shall be guilty of misdemeanor and upon conviction shall be punished by imprisonment for a period not exceeding six (6) months or by a fine not exceeding Php 1,000.00 or both depending upon the discretion of the court.

17.1.2 Any person who shall interfere or hinder, or oppose any officer, agent or member of the Department of Health or of the bureaus and offices under it, in the performance of his duty as provided for under these rules and regulations, or shall tear down, mutilate, deface or alter any placard, or notice, affixed to the premises in the enforcement of these rules and regulations shall be guilty of misdemeanor and punishable upon conviction by imprisonment for a period not exceeding six (6) months or by a fine not exceeding Php 1,000.00 or both depending on the discretion of the court.

SECTION 18. SEPARABILITY CLAUSE

In the event that any rule, section, paragraph, sentence, clause or words of these implementing rules and regulations is declared invalid for any reason, the other provisions thereof shall not be affected thereby.

SECTION 19. REPEALING CLAUSE

All pertinent rules and regulations which are inconsistent with the provisions of these implementing rules and regulations are hereby repealed or amended accordingly.

SECTION 20. EFFECTIVITY

These rules and regulations shall take effect after fifteen (15) days from date of publication in the official gazette or a newspaper of general circulation.

Approved on this 21st day of December nineteen hundred ninety eight, Manila, Philippines.


ALBERTO G. ROMUALDEZ, JR., M.D.
Secretary of Health

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Manila Standard

ANNEX I OUTLINE OF SUGGESTED MAINTENANCE PROCEDURES AND SCHEDULES OF DRY CLEANING EQUIPMENT

The components of the dry cleaning equipment shall be divided into three categories:

I. Machine Components

1. Machine Cylinder

- a. There shall be a weekly check of solvent vapor leaks. It shall be done more efficiently by using electronic vapor detector. It shall be important to check gaskets in the loading door of the machine or the recovery tumbler, as these can be a major source of leaks.
- b. It is much preferable to always use graphite when lubricating bearings in the washer or recovery tumbler. Graphite is conductive and can disperse the electrical charge (resulting from static electricity) throughout the metal parts of the machine. The instructions for the frequency of lubrication shall be based upon the manufacturers specifications.
- c. Dampers in recovery tumblers shall function properly in order to attain an efficient drying/recovery operation. Inlet and exhausts dampers shall be properly sealed to avoid solvent vapor leaks coming from the exclaimer. Inspect damper gasket seals and replace immediately if necessary. Leaks coming from the inlet and exhausts dampers can be check by an electronic halogen detector and adjusts tension springs. The leaks found in exhaust dampers can also be check by using a plastic bag with an elastic neck and placing it in the damper outlet and seeing the plastic bag inflates during the recovery cycle. Inlet and exhausts damper shall need to be inspected on a monthly basis.
- d. Debris such as pins, may entangle in the perforation of the wheel so it shall be checked on a daily basis.
- e. Check and adjusts the tension of the transmission belts monthly, according to the manufacturer's instructions.

2. Heating and Condensing Coils

It is necessary to unbolt the plates of the heating and condensing coils in the recovery tumblers in order to clean them. It shall be done according to the manufacturer's instructions.

- a. Check the fins of the heating and condensing coil for lint. Since the air flows over the condensing coil first, these fins usually catch most of the lint before getting into the lint bag or foam filter. Brush the coil with a stiff brush or use an industrial vacuum to remove the residual lint in the coils. If the lint are hard and cannot be remove by this method use compressed air to dislodge the lint then vacuum the residue. Remember to wear safety goggles whenever you use compressed air above 30 psi.
- b. If the lint bag functions efficiently, the fins may need to be cleaned at least once or twice a week. If the fins in the dry-to-dry machines have accumulated heavy lint, check the heating coils for lint as well.
- c. It is necessary to clean thoroughly the coils once or twice a year. This can be done by blowing it with air, or you may use steam gun if you are near to the spotting board.
- d. It shall be required that refrigerated condensers in dry-to-dry, no vent machines be checked on a weekly basis to make sure the temperature of the solvent air stream on the outlet side of the refrigerated condenser is equal or less than 45°F. Record the temperature in your Monthly Maintenance and Solvent Log.

3. Button Trap

- a. The button trap lid and strainer shall be inspected regularly. The strainer shall be cleaned daily and the lid shall be checked for solvent vapor leaks with an electronic halogen leak detector once a week.
- b. Accumulated lint in the solvent level sensor shall be removed weekly.
- c. Magnets may be placed in the button trap strainer to pick up metallic materials such as pins.

Fans shall be cleaned of lint and lubricated yearly. The blade of the fan shall be firmly tightened onto the shaft of the motor.

5. Solvent Pump

- a. Strainers of pumps shall be cleaned at least once a week.
- b. There shall be a periodic check of the pump gasket. Replace the pump gasket when it starts showing signs of wear or when the electronic halogen detector indicates vapor leak.
- c. The impeller shall be checked at least once a year for accumulated debris.
- d. Pumps equipped with check valve in the suction line shall be inspected daily. Replace the check valve if necessary.

6. Lint Trap

- a. The lint trap, or lint filter, which is located in the air flow system shall be brushed on a daily basis. The front of the filter and the duct passageway shall be check for lint. Lint can build up and restrict the airflow in the duct. It can also absorb and hold moisture, causing a mildew odor on garments.
- b. The lint filter shall be cleaned weekly. Never run the machine or recovery tumbler without a lint filter, a second lint filter shall need to be available.
- c. Machines equipped with heat sensor probes, which are usually found under or behind the lint filter, shall be checked daily for lint accumulation.
- d. The lint filter compartment door shall be checked weekly for solvent vapor leaks using electronic halogen leak detector. This inspection shall be performed during the cycle operation.

1. **Filters**

There are basically two types of filters: cartridge filters and disc filters (with or without powder).

a. **Disc Filters**

Maintaining the disc-type filters shall require to follow the operating manual for spinning intervals. Opening the filter housing is not necessary. Cleaning the filters depends on the filter pressure buildup or upon the manufacturer's instruction of specific number of cleaning cycles. The filter housing seals and drain pipe shall be checked weekly for vapor leaks.

b. **Cartridge Filters**

- It shall be important to check the filter pressure daily to make sure that it does not exceed the manufacturer's standards.
- The standard-sized cartridges shall be changed after approximately 1,000 pounds of cleaning per cartridge, depending on the filter pressure. Adsorptive cartridges shall be changed after 2,000 pounds of cleaning. Protective gear, such as an organic vapor respirator, goggles, and gloves, shall be worn during the process. The cartridges shall be drained overnight and hung at a time when no other plant personnel are present.
- When changing cartridges, make sure that the gaskets between the cartridge canisters are placed and seated properly. Misplaced, worn-out, and damage gaskets can allow soil to leak out.
- This shall be an early morning routine (before machine is started). This will allow the air to mix in the filter housing. Many filters have built-in system for this function.

Stills and muck cookers functions to distillate. Since distillation is conducted at high temperatures, the potential for solvent vapor leaks into the plant atmosphere is great. There shall be a weekly inspection of solvent vapor leaks with a electronic halogen leak detector especially around the seals and gaskets of the distillation equipment. It shall be practiced to have a spare still or cooker opening door gasket in handy.

3. **Stills with Exposed Heating Coil**

- a. Stills with exposed heating coils shall be checked for lint buildup at least twice a year. Dirt and lint can buildup on the condensing coil and retain moisture, which becomes acidic and cause tiny pin holes to form in the coil.
- b. To clean the coils, remove the still cover and rinse with water. Make sure that the water is drained completely before distilling. Light brushing in the coil may be done to remove lint buildup have hardened on the coils.
- c. Some boilovers may be caused by leaky coil dripping water back into the still. You can check for leaks by cleaning the coil and turning on the inlet water valve and closing the outlet water valve.

4. **All Stills**

Steam coils, unexposed still coils, and electric heated stills shall be cleaned whenever the rate of distillation slows down or stops due to lack of heat transfer from the heat source to the solvent. Because these stills vaporize the solvent, they can leave behind oils, dyes, and other constituents.

5. **Water Separator**

Each of these pieces of equipment has a water separator as the collection point for the solvent/water flowing from the machine, reclaiming tumblers, dry-to-dry units, stills, muck cookers, and most vapor adsorber. The purpose of the water separator is to separate solvent from water. The heavier solvent will settle on the bottom, and the water, which is much lighter than perc, will float on top.

Basically, there are two types of water separators: the open top unit and the sealed unit. While the open top unit is more accessible for cleaning and maintenance than the sealed unit, the internal working parts of both units are essentially the same. Water separators consists of a water separator (container), an atmospheric vent to release pressure, three pipe connections, one or two inside baffles, and no moving parts.

Regular inspection and cleaning is extremely important. Neglect can cause the water separator to malfunction, resulting in cloudy solvent, fungus growth, and corrosion. Vapor leaks shall also be checked weekly using an electronic halogen detector.

The following is a procedure for the checking of unwanted materials in the water separator.

- a. Drain the solvent and water by removing the drain plug, which is located on the bottom of the separators. Separators having removable top can be seen directly on the base for any buildup.
- b. Flush the separator with water. Before flushing, be sure to lock the drain line that goes to your base tank using a cork or stopper.
- c. Use a bent coat hanger or something similar to check for lint buildup in either the solvent or water drain lines.
- d. Check vent lines for blockage. Sealed-type unit can be check from the outside.
- e. Flush water to the separator to remove any sediment on the bottom. Be sure to block off your solvent return line to the base tank.
- f. After the cleaning, pour enough solvent into the separator so it will be even with the level of the solvent outlet line going to the base of the tank, along with a small amount of water. Be sure to pour the water into the middle of the separator – not between the solvent outlet line and the baffle closest to it.

III. Vapor Exposure Control Devices

1. Add-On Refrigerated Condensers

All gaskets and seals shall be checked for leaks on a weekly leak detection and repair program. All lint filters in the duct work associated with refrigerated condensers shall be cleaned everyday.

Refrigerant coils shall also be checked once a year by a trained technician, in accordance with the manufacturer's specifications.

2. Carbon Adsorber

Carbon adsorbers shall be desorbed properly, to be able to adsorbed solvent vapor in the air stream. The frequency of desorption shall depend greatly on the amount of dry cleaning performed and the concentration of solvent in the air stream. The operator shall determine the maximum capacity of solvent that the carbon adsorber can hold, and desorb the carbon adsorber daily. The frequency may be less, depending on whether the daily return of solvent from the carbon adsorber is less than 50 percent of its capacity.

One way to determine a carbon adsorber's maximum capacity is by checking the carbon adsorber's maximum exhausts with a calorimetric detector tube. Once the exhausts read over 100 parts per million of perc, the carbon adsorber is considered saturated according to standards. The saturated carbon adsorber shall be then completely desorbed by steam desorption for one hour, followed by aeration for at least 20 minutes. The amount of solvent returned from this desorption will be the carbon adsorber's maximum capacity.

It shall be required that all lint filters and screens be cleaned and monitored on a weekly basis, as well as all gaskets and duct work.

ANNEX II
MAINTENANCE SCHEDULE GUIDE FOR
OLD AND NEW MACHINES

| Frequency | Maintenance Procedure | Component |
|---------------------------------|---|--|
| Daily (or before saturation) | Remove tangled pins or other debris. Check filter pressure, bleed air from filter housing. Check the refrigerant sight-glass for bubbles. Clean air filters in air stream. Check appearance of perc and water layers. Clean strainer. Check valves (if any). Clean Desorb. Clean air flow filter | Cylinder Filters Add-on Refrigerated Condenser Water Separator Button Trap Pump Lint Filters Carbon Adsorber |
| Weekly | Check for leaks in door gaskets. Check for vapor leaks. Clean solvent level sensor. Clean strainer. Dry clean lint filter or bag. Check perc vapor leaks. Check perc vapor leaks during distillation. Clean water separator. Clean perc vapor leaks. Measure temperature of exhausts from condenser coil. Measure perc concentration in air exhausts duct. | Cylinder Button Trap Pump Lint Filter Filters Still or Cooker Water Separator Add-on Refrigerated Condenser Carbon Absorber |
| Monthly | Check recovery unit dampers. If needed, adjust transmission belt and check for condition. Check fins for lint (in recovery tumbler units). Inspect impeller. Check condensing coils. Check vents for cloggings. Check refrigerant coil for lint buildup. Check for leaks in gaskets and duct works. | Cylinder Heating and Cooling Coils Pump Still or Cooker Water Separator Add-on Refrigerated Condenser Carbon Absorber |
| Yearly | Clean heating and cooling coils and fins by steam or compressed air. Lubricate and check for lint buildup. Clean heating and condensing coils and check for leakage. Clean refrigerant coils. | Heating and Cooling Coils Fans Still or Cooker Add-on Refrigerated Condenser |

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The Department of Health enjoins all agencies especially the Local Government Executives in meeting the demands and challenges for a healthful living environment as we enter our journey for development towards Philippine 2000.



ALBERTO G. ROMUALDEZ, JR., M.D.
Secretary of Health