shall be commenced within six months after the passage hereof, in any of the courts of the state involving the validity of such foreclosure.

Approved April 16, 1955.

CHAPTER 477—S. F. No. 1080

[Not Coded]

An act to appropriate money from the general revenue fund for the expenses of the revisor of statutes in drafting bills for the legislature.

Be it enacted by the Legislature of the State of Minnesota:

Section 1. **Appropriation, revisor of statutes.** The sum of $1,700 or so much thereof as may be necessary, is hereby appropriated, out of the general revenue fund in the state treasury not otherwise appropriated, to the Revisor of Statutes to pay expenses incurred and salaries of assistants employed in drafting bills for the legislature. This sum to be available immediately.

Approved April 18, 1955.

CHAPTER 478—S. F. No. 1118

[Coded]

An act providing regulations for the construction, inspection, classification, maintenance and operation of dry cleaning and dry dyeing buildings and establishments in the State of Minnesota, vesting certain authority for supervision and inspection of the same in the state fire marshal, providing for the issuance of permits by the state fire marshal for the operation of the same, providing certain exemptions from the operation of this act as to buildings now in use for such purposes, defining the business of dry cleaning and dry dyeing, providing penalties for the violations of the provisions hereof and fixing a time when the same shall take effect, and providing for repeal of Minnesota Statutes 1953, Sections 76.01 to 76.31 inclusive.

The purpose of this act is to provide reasonable safeguards for the prevention and control of fire and explosion

hazards incident to dry cleaning and dry dyeing operations, and for the protection of the employees and the public.

Be it enacted by the Legislature of the State of Minnesota:

Section 1. [76.32] **Definitions.** Subdivision 1. Words, terms, and phrases. Unless the language or context clearly indicates that a different meaning is intended, the following words, terms, and phrases, for the purposes of this chapter, shall be given the meanings ascribed to them.

Subd. 2. Dry cleaning shall mean the process of removing dirt, grease, paints and other stains from wearing apparel, textiles, fabrics, rugs, furs, etc., by the use of non-aqueous liquid solvents. Methods of dry cleaning include:

a. Immersion and agitation with the solvent in open vessels.

b. Immersion and agitation with the solvent in closed machines.

c. "Brushing" or "scouring" with cleaning solvents.

Subd 3. Dry dyeing shall mean the process of dyeing clothes or other fabrics or textiles in a solution of dye colors and non-aqueous liquid solvents. In the sections which follow, wherever reference is made to "dry cleaning", it shall be construed as applying to both dry cleaning and dry dyeing operations.

Subd. 4. The term "approved" shall mean acceptable to the state fire marshal.

Subd. 5. "Person" shall mean any individual, partnership, association, or corporation.

Subd. 6. The term "fire resistive construction" shall mean walls, floors, or partitions constructed of brick, stone, concrete, cement blocks, or equivalent.

Subd. 7. "Spotting" (prespotting) shall mean the local application of solvents to spots, dirt, grease, paints and stains for removal of the same.

Subd. 8. "Solvent classification" shall mean a method for classifying solvents according to fire hazard, and in this act the following schedule for the rating of hazards of flammable liquids shall be employed:

Ether rates	100
Gasoline rates	90 - 100
Alcohol (ethyl) rates	60 - 70
Kerosene rates	30 - 40
Paraffin oil rates	10 - 20

Subd. 9. "System classification" shall mean, for the purpose of this act, that dry cleaning plants or systems are arranged in four classes according to the foregoing hazard scale as follows:

Class I - Systems utilizing solvents rated above 40.

Class II - Systems utilizing solvents rated 40 or below, but which do not comply with Class III or Class IV requirements.

Class III - Systems employing equipment utilizing solvents having specified characteristics and rated at 25 or below.

Class IV - Systems utilizing solvents classified as nonflammable, or as nonflammable at ordinary temperatures and only moderately flammable at higher temperatures.

Sec. 2. [76.33] **Dry cleaning, dry dyeing business, operation.** No person shall:

a. Advertise as conducting dry cleaning or dry dyeing business, or either, until such person shall have made application to the state fire marshal for permission to engage in such business and paid the fee hereinafter provided.

b. Operate any establishment of a class for which a license has not been obtained or use in any establishment except as herein provided, a solvent utilized in establishments of any lower class than that for which license has been obtained.

c. Keep or store any flammable liquids in any building or room in which dry cleaning or dry dyeing is done without a license from the state fire marshal and then only subject to rules and regulations prescribed by him.

d. Conduct an agency or station for the purpose of receiving and delivering materials or articles to be dry cleaned or dry dyed by others without having made application to, and obtained a license therefor, from the state fire marshal.

Sec. 3. [76.34] **Building, approval of use.** No building or establishment shall be used for the business of dry cleaning or dry dyeing, or for the storage of inflammable or volatile substances for use in such business until an application for permission to do so shall have been filled out and approved by the state fire marshal on blanks provided by him for that purpose.

Sec. 4. [76.35] **Fees.** Upon the filing of every such application, the applicant shall pay to the state fire marshal a filing and inspection fee of $25, except that the fee for agen-

cies or stations referred to in Subdivision 4 of Section 3 [Section 2, clauce d,] shall be $3 and no additional fee shall be charged for licenses to store flammable liquids.

Sec. 5. [76.36] **Inspection, permits.** When any application is filed with the state fire marshal and the fee paid, the state fire marshal, by himself, his deputies or assistants, shall make an inspection of such building, buildings, establishments, agencies, or stations; and, if the same conform to the requirements of law, the ordinances of the municipality where located, and the rules which may be prescribed by the state fire marshal for such places, he shall issue a permit to the applicant for the conduct of such business, which permit shall extend until the 1st day of January next after the date of issuing of same.

Sec. 6. [76.37] **Permits, renewal.** The license shall be renewed at any time within thirty days after the termination thereof by the filing of an application for such renewal and the payment of a fee of $5 therefor; provided, the applicant for such renewal permit has complied with the provisions of this act, the laws of the State of Minnesota, and the ordinances of the municipality where the business or establishment is located.

Sec. 7. [76.38] **Permits, shown upon request.** All permits must be exhibited for inspection to the state fire marshal, or any of his deputies or assistants when the same are requested; and no one, except the person to whom the same are issued, shall have a right to operate a business or establishment under any permit.

Sec. 8. [76.39] **Permits; refusal, suspension, revocation.** Permits may be refused, suspended, or revoked by the state fire marshal for fraud in procuring the same, a violation of any law of the state or ordinance of the municipality in which the business is located, or a violation of any rule or regulation lawfully provided for the conduct of any business or establishment.

Sec. 9. [76.40] **Machinery, approval.** Except as provided otherwise in this act, dry cleaning by immersion and agitation in open vessels is prohibited. Dry cleaning by immersion and agitation in closed machines shall be carried on with approved machinery and equipment installed and operated in accordance with the provisions of this act and regulations promulgated hereunder.

Sec. 10. [76.41] **Plans for plants, approval.** Before any dry cleaning plant is established or remodeled, complete

drawings shall be submitted to the state fire marshal for examination and approval. These drawings shall be drawn to an indicated scale, give relative locations of dry cleaning building, boiler room, finishing building or department, storage tanks for solvents, pumps, washers, drying tumblers, extractors, filter traps, stills, condensers, piping, etc., show sectional elevation of the buildings (including lowest floors or pits, tanks, their fittings, devices, etc.). Specifications based on the provisions of this act and regulations promulgated hereunder shall accompany the drawings.

Sec. 11. [76.42] **Classification of plants.** For purposes of this act, all dry cleaning plants shall be classified into one or four hazard group installations as specified in Section 12.

Sec. 12. [76.43] **Class of installations.** For the purpose of determining the class of installations into which a dry cleaning plant may fall, the following schedules shall be employed:

Subdivision 1. Class I—Dry cleaning plant or system utilizing solvents rated above 40 as to hazard shall be designated as Class I installations.

Subd. 2. Class II—Dry cleaning plant or system utilizing solvents rated 40 or below, but which do not comply with Class III or Class IV requirements, shall be designated as Class II installations.

Subd. 3. Class III—Dry cleaning plant or system employing equipment utilizing solvents rated 25 or below with respect to fire hazards shall be designated as Class III installations.

Subd. 4. Class IV—Dry cleaning plant or system utilizing solvents classified as nonflammable or as nonflammable at ordinary temperature and only slightly flammable at higher temperatures (rated not over 5) shall be designated as Class IV installations.

Sec. 13. [76.44] **Class I plants.** Subdivision 1. Buildings used for Class I dry cleaning plants shall not be used for any other purpose. The dry cleaning buildings shall not be closer than ten feet to the property line, except when the exposing wall of the dry cleaning building is of standard brick or equivalent construction and without openings. A dry cleaning building may be located on the property line but in no case shall more than two sides have blank walls.

Subd. 2. The provisons of this chapter shall not be held to apply to any building, business or establishment presently

utilizing solvents rated above 40 as to hazards so as to cause the same to be rebuilt, remodeled, or repaired so as to conform to the provisions of this section. Nothing in this section shall permit any person to establish a new dry cleaning plant or system using solvents rated above 40 as to hazards after the effective date of this act.

Sec. 14. [76.45] **Class II plants.** Subdivision 1. The dry cleaning buildings shall be no closer than ten feet to the line of adjoining property except that when the exposing wall of the dry cleaning building is of twelve inch brick or equivalent construction, and without openings, it may be located on the property line.

Dry cleaning operations shall in no event be carried on in the same building with other occupancies. Operations incidental to or in connection with the dry cleaning business, such as laundering, scouring, scrubbing, drying, pressing, ironing, etc., shall not be classed as "other occupancies", for the purpose of this act.

Subd. 2. Construction. The location of Class II dry cleaning systems shall be restricted to the lowest floor of a building but shall not be located on any floor below grade.

a. Walls shall be of masonry or noncombustible construction and wall finish shall be plain or plastered without furring or concealed spaces.

b. Floors of dry cleaning section shall be of fire resistive construction and shall have no pits, walls or pockets. The wearing surface shall be of noncombustible materials and where located over a basement, floor shall be vapor and liquid tight.

c. Roof and floors above grade floor shall be of fire resistive or noncombustible construction, but if of combustible construction, the ceilings over the dry cleaning areas shall be protected by cement or gypsum plaster on metal lath or equivalent construction having not less than a one hour fire resistance classification.

d. Door openings on stairs or elevators leading from a dry cleaning area to a basement, or opening into room having openings or stairs to basements, shall be provided with noncombustible sills or ramps raised at least six inches. Approved self-closing Class B fire doors shall be provided at such openings. Enclosures shall be of construction equivalent to the floor construction but having a fire resistive rating of not less than one hour.

e. Where incidental operations, such as those permitted under this section are located on the same floor with dry cleaning plants, the dry cleaning operations shall be cut off therefrom by fire partitions capable of providing two hours fire resistance, and should preferably be located in a corner of the building so that the exterior walls will form a part of the enclosure required by these standards. Any openings in partitions shall be protected with an approved automatic Class B fire door.

f. Drying should preferably be conducted in suitably protected drying cabinets or tumblers, but where done in dry rooms, such rooms shall be constructed with walls, partitions and ceilings of material capable of furnishing two hours fire resistance, and having self-closing doors of equivalent construction. If the drying room is in a separate building, the building shall conform in all respects to the requirements for the dry cleaning building.

g. The requirements of (e) of this subdivision may be waived at the discretion of the fire marshal based upon a consideration of such factors as type of building construction involved, nature of operations, and extent of private protection provided.

Subd. 3. A mechanical system of ventilation shall be installed in dry cleaning areas and shall be provided with means for remote control. Mechanical systems of ventilation shall have sufficient capacity to insure complete and continuous change of air in dry cleaning rooms once every six minutes. The ventilation system shall operate automatically when any dry cleaning equipment is in use. The ventilation system shall be automatically shut off upon operation of the fire protection or detection system where required by the state fire marshal.

a. The spiders and blades or running rings of exhaust fans shall be of nonferrous metal, and motors for fans shall not be installed in ducts.

Subd. 4. Lighting shall be by electricity employing incandescent lights. All electric wiring in dry cleaning rooms or other sections subject to flammable vapors shall be in rigid conduit installed in accordance with the requirements of the National Electrical Code for Class I hazardous locations, and all lighting fixtures, portable lights, switches and other electrical devices located within eight feet of the floor shall be of the explosion proof type approved for Class I, Group D, hazardous locations as defined in the National Electrical Code.

a. Electric motors, motor controllers, overcurrent de-

vices, switches and other electrical devices, if installed in dry cleaning rooms or other areas subject to flammable vapors, shall be of the explosion proof type approved for Class I, Group D, hazardous locations as defined in the National Electric Code.

Subd. 5. Heating shall be by steam or hot water only, employing direct radiation, with pipes and radiators installed with adequate clearances and properly protected, where necessary, against contact with combustible goods or materials.

a. Boilers shall be located when possible in a detached fire resistive building. When in the same building and adjoining cleaning rooms, the boiler building or rooms shall be cut off by an unpierced brick wall at least twelve inches thick, or equivalent; and the rest of the boiler room enclosure, including walls and ceiling, shall be of two hour fire resistive construction with standard self-closing fire doors.

Subd. 6. All solvent storage tanks shall be underground and equipped in accordance with state laws and municipal ordinances for storage and handling of flammable liquids.

a. Above ground treatment tanks or purifiers shall be safeguarded as follows:

1. Such containers shall have an individual capacity not in excess of 350 gallons, and shall in no event exceed in capacity any individual storage tank to which they may be connected.

2. Containers shall be securely mounted on rigid incombustible support and shall be permanently and effectively grounded.

3. Containers shall be provided with not less than one and one-quarter inch vent pipes extending to the outside of the building.

4. Each above ground container shall be provided with an automatic, heat actuated emergency drain connection of ample capacity to discharge the entire contents to the underground storage tanks within a brief period.

Subd. 7. Pressure type filters shall be equipped with a reliable pressure gauge and shall not be operated at pressures exceeding that recommended by the manufacturers.

a. Pressure filters shall be provided with an air bleeding valve and line connected to discharge into the washer or into the storage tank supply line. Such vents shall not discharge into the room.

b. All liquid level gauge glasses, unless of approved heavy duty type, shall be equipped with an automatic device which will immediately shut off the flow of solvent if the glass is broken. These liquid level gauge glasses shall be guarded against physical damage.

Subd. 8. Pumps, piping, washers, drying tumblers, extractors, separators and stills. All apparatus of this class shall be in accordance with the following general requirements:

a. Apparatus shall be approved by the fire marshal.

b. Apparatus shall be installed and connected in accordance with state laws and local ordinances.

c. All liquid handling parts such as washers, extractors, filters, button traps, and moisture spearators shall be constructed to prevent leakage of solvent.

d. When pulleys and belting are used in the dry cleaning room the danger from static electricity shall be mitigated by the installation of properly grounded combs or collectors, or by other methods approved by the authority having jurisdiction.

Subd. 9. The handling of solvents from the storage tank through the various machines and back to the settling and clear solvent tanks, shall be through closed circuits of piping.

a. Sight glasses, the breakage of which would permit the escape of flammable liquids, shall be of a type not readily damaged by heat and shall be reliably protected against physical damage.

b. Sludge pumps shall be provided to remove sludge from underground treating and settling tanks. The suction pipe shall be carried to the tank bottom and the pump shall discharge to a suitable container. In no case shall the discharge be into a sewer.

c. All pumps handling solvent shall be designed for use with hazardous liquids. Pumps of the positive displacement type shall be fitted with a relief valve and by-pass set so as to prevent excessive pressure.

d. All piping shall be tested to a minimum pressure of at least 50 per cent in excess of its normal operating pressure and proved tight and protected against physical damage.

e. Piping, valves, and fittings for solvents shall be designed for the working pressures and structural stresses to which they may be subjected. They shall be of steel or other

material suitable for use with the solvent. Pipe systems shall be substantially supported and protected against physical damage and excessive stresses arising from settlement, vibration, expansion or contraction. Pipe systems shall contain a sufficient number of valves to operate the system properly and to protect the plant.

Subd. 10. Washing machines shall be of substantial construction and provided with splash-proof doors of the outside case-hinge type and shall be provided with interlocks to prevent cylinder rotation under power except for inching when doors are open.

a. Each washing machine shall be provided with an overflow pipe one size larger than the size of the solvent supply line to the machine. Such overflow pipe shall be connected to the shell of the washer so that the top of the over-flow is below the bottom of trunnion shaft, shall be without shut-off valves, and shall be arranged to discharge to an underground tank.

b. Washing machines shall be securely attached to the floor.

c. The cylinders and shells of all washing machines shall be permanently and effectively grounded to dissipate static electricity. The grounding of the cylinder in each case shall be through the trunnion shaft and in cases where wooden cylinders are used, shall be grounded also across the inner surface of the cylinder.

d. Individual button and lint traps shall be provided for each washer.

e. The supply pipes to washing machines whether from pumps, filters or storage tanks, shall enter the washing machines above the charged liquid level.

f. Each washing machine shall be provided with approved extinguishing equipment, arranged to operate automatically in case of fire consisting of a carbon dioxide system or a jet not less than ¾ inch with a continuously available steam supply at a pressure of not less than fifteen pounds per square inch.

Subd. 11. Stills and condensers shall be in accordance with the following:

a. Steam or hot water only shall be used as the source of heat. If steam is used, a pressure regulating valve shall be installed in the steam supply line to the still.

b. Stills and condensers shall be liquid and gas tight.

c. Stills shall be designed for operation on the vacuum principle.

d. If a relief valve is provided, it shall be equipped with a vent line extending to the outside.

e. A check valve shall be installed in the steam line between the boiler and the still.

f. Each still shall be provided with a combination vacuum and pressure gauge.

g. Each still shall be equipped with a constant level valve to automatically maintain the solvent liquid level in the still at the proper height.

Subd. 12. Drying tumblers and drying cabinets shall be in accordance with the following:

a. Drying tumblers shall be of substantial tight construction, well secured to substantial foundations, and shall be provided with self-closing explosion hatches having an area equal to at least one square foot for each thirty cubic feet of cylinder volume. Hatches shall be arranged to open away from the operator.

b. The cylinders and shells of all drying tumblers shall be permanently and effectively grounded to dissipate static electricity. The grounding of the cylinder in each case shall be through the trunnion shaft.

c. Drying tumblers shall be provided with a steam jet of not less than $\frac{3}{8}$ inch pipe size, for humidifying during the drying process.

d. Drying tumblers and drying cabinets shall be ventilated to the outside air by means of properly constructed pipes or ducts to an exhaust fan of sufficient capacity to remove all dust, vapors, or lint generated by the process. Such discharge pipes or ducts shall be carried to a height of not less than six feet above the roof, and shall be provided with cleanout facilities.

e. Discharge pipes shall not terminate within ten feet measured horizontally from any door, window or frame walls of any adjoining or adjacent building.

f. The fan shall be properly housed and so interlocked as to insure operation while the drying tumbler is in use. The fan spiders, blades or running rings shall be constructed of nonferrous metal. In no case shall the fan motor be mounted within the ventilating duct.

g. Each drying tumbler shall be provided with approved extinguishing equipment, arranged to operate automatically in case of fire, consisting of a carbon dioxide or steam jet system.

Subd. 13. Extractors shall be of substantial construction and securely attached to rigid noncombustible supports.

a. The basket shall have a rim of nonferrous metal and shall be well balanced.

b. Extractors shall be provided preferably with nonferrous metal liquid tight covers, or they shall be designed so that none of the liquid solvent is thrown out of the extractor while it is in operation. The cover shall be equipped with automatic mechanical or electrical interlocks which will prohibit operating the extractors while the cover is open and which will prohibit opening the cover until the basket comes to rest.

c. Extractors shall be provided with a drain pipe not less than one and one-half inches in diameter connected direct to the underground storage tanks or to a suitable above ground container, or to the washer through an approved extractor pump with connections fitted with proper valves.

d. The outside shell of extractors shall be permanently and effectively grounded for dissipation of static electricity.

e. Brakes, if used, shall be so designed as to prevent the creation of sparks or excessive heat.

f. Extractors shall not be operated at a speed in excess of that prescribed by the manufacturer as shown on the name plate which must be provided on each machine.

Subd. 14. All scouring or brushing and spotting (prespotting) operations shall be conducted with liquids or solvents having a fire hazard rating of 40 or less, except that solvents having a higher hazard rating may be used in quantities not exceeding a total of one gallon when dispensed from approved safety cans. Additional storage shall be in approved safety cans of not over one gallon capacity.

a. When scouring or brushing operations utilize solvents rating above 40 in excess of one gallon, such operations shall be conducted in separate buildings or rooms complying in all respects with the requirements for Class I dry cleaning plants.

b. No washing or scrubbing with solvents rated above 40 shall be carried on in any Class II plant.

c. The brushing (prespotting) table shall have a liquid tight top with a curb on all sides not less than one inch high.

The top of the table shall be pitched so as to insure thorough draining to a one and one-half inch drain connected to a suitable container especially provided and marked for that purpose.

d. The scouring or brushing table or scrubbing tub shall be so located as to insure thorough and effective disposal of vapors through the ventilating system.

e. Articles, the character of which prevents their washing in the usual washing machines, may be cleaned on scouring or brushing tables or in approved scrubbing tubs provided the total amount of solvent used in such open containers shall not exceed three gallons. Scrubbing tubs shall be secured to the floor and shall be provided with permanent one and one-half inch trapped drains to a suitable container especially provided and marked for that purpose.

Subd. 15. Suitable first aid fire protection shall be provided in accordance with state law and local ordinances.

a. Approved first aid extinguishing devices of a type suitable for use on flammable liquid fires shall be provided for every room or area where flammable liquids are used. In no case shall there be less than one extinguisher of B-1 rating at each entrance of every room or area where flammable liquids are used.

Sec. 15. **[76.46] Class III plants.** Systems equipped with automatic fire and explosion safeguards and which, in any case shall employ tumblers or other drying devices which are so constructed as to control automatically the flow of air and temperature therein and by such control to operate under all conditions without formation of explosive or flammable vapor air atmosphere within the machines, and with provisions to flood automatically the interior thereof with saturated steam in the event of failure of the other automatic safeguards; provided, that systems in this class shall utilize flammable solvents having a flash point of not less than 138.2 degrees Fahrenheit, and shall comply with the following requirements:

a. Minimum specifications of flammable solvent which shall be used in Class III operations are as follows:

Flashpoint (closed cup)	Not lower than 59 degrees Centigrade or 138.2 degrees Fahrenheit.
Initial boiling point	Not lower than 181 degrees Centigrade or 357.8 degrees Fahrenheit.

Ignition temperature	Not lower than 234 degrees Centigrade or 453.2 degrees Fahrenheit.
Power limit or explosive range	Not less than 0.8 percent by volume in air at an initial temperature of 150 degrees Centigrade or 302 degrees Fahrenheit.
Spontaneous heating	The cleaning solvents shall not heat spontaneously.

b. Systems employing solvents rated at 25 or below, but not provided with approved equipment as required under Class III, or where such solvents are not listed specifically for use with such systems, shall automatically fall in Class II.

Subdivision 1. Where dry cleaning plants of this class are located in the same building with other occupancies, such plants shall be cut off therefrom vertically and horizontally by construction providing one hour fire resistance. Where these conditions exist, the dry cleaning plant or department should preferably be located in a corner of the building so as to permit the use of the exterior walls as a part of the enclosing walls. All vertical or horizontal openings to other occupancies shall be protected by automatic fire doors approved for the type of opening.

a. For the purpose of this section, operations incidental to or in connection with the dry cleaning business, such as laundering, scouring, scrubbing, drying, pressing, ironing, etc., shall not be classed as "other occupancies".

b. The requirements of Subdivision 1 may be waived at the discretion of the state fire marshal based upon a consideration of such factors as type of building construction, nature of occupancy, storage and operating capacity of the system and extent of private fire protection provided.

Subd. 2. Lighting shall be by electricity. All electrical equipment devices, and wiring for light and power shall be installed in accordance with the requirements of the National Electrical Code for ordinary locations.

Subd. 3. Boilers shall be located, when possible, in a detached building. When in the same building, and in a room adjoining the dry cleaning room, the boiler room shall be cut off by fire partitions without openings, having a fire resistance rating of not less than two hours.

Subd. 4. Heating shall be by any approved means which does not involve any open flame or ignition source in the dry cleaning area. Piping and radiators for heating purposes shall be at least one inch from all woodwork and shall be protected by substantial metal screens arranged to prevent combustible goods or materials from coming in contact with such pipes and radiators.

Subd. 5. The total capacity of above ground inside solvent storage tanks shall not exceed 550 gallons, provided the individual capacity of any one such tank shall not exceed 275 gallons. Where storage capacity in excess of this quantity is desired, that in excess of 550 gallons shall be in approved containers installed underground, or in enclosures or casings constructed in accordance with state laws and local ordinances.

a. Inside above ground processing equipment units containing solvent shall have an individual capacity not in excess of 275 gallons. The total operating solvent capacity of the plant, including inside above ground storage tanks, shall not exceed 1,100 gallons.

b. Each above ground storage tank, extractor drain tank, and still shall be provided with a liquid level gauge, preferably of the approved magnetically operated float type. If it is impractical to use a float type gauge, sight glasses may be used, but they shall be of a type not readily damaged by heat and shall be reliably protected from breakage and physical damage.

c. Tanks shall be located as close as possible to the washing machine with which they are connected.

d. Solvent storage tanks, and extractor drain tanks shall be provided with not less than one and one-fourth inch vent pipe extending to the outside of the building.

Subd. 6. Pressure type filters shall be equipped with a reliable pressure gauge and shall not be operated at pressures exceeding that recommended by the manufacturers. Pressure filters shall be provided with an air vent line connected to discharge into the washer or into the storage tank supply line. Such vents shall not discharge into the room.

Subd. 7. The handling of solvents from the storage tank, through the various machines, and back to the settling and clear solvent tanks, shall be through closed circuits of piping.

a. Sight glasses shall be of a type not readily damaged by heat and shall be reliably protected from breakage and physical damage.

b. All pumps handling solvent shall be approved for use with hazardous liquids. Pumps of the positive displacement type shall be fitted with a relief valve and by-pass set so as to prevent excessive pressure.

c. When underground treating and settling tanks are used, a separate suction and discharge connection shall be provided to the pump. The suction pipe shall be carried to the tank bottom and the discharge connection to a suitable container. In no case shall the discharge be into a sewer.

d. Piping, valves, and fittings for solvents shall be designed for the working pressures and structural stresses to which they may be subjected. They shall be of steel or other material suitable for use with the solvent. Pipe systems shall be substantially supported and protected against physical damage and excessive stresses arising from settlement vibration, expansion or contraction. Pipe systems shall contain a sufficient number of valves to operate the system properly and to protect the plant.

e. The transfer of solvent from the shipping or supply drums to the system during the initial charging or whenever replenishing the solvent supply shall be accomplished by utilizing either the system circulating pump and piping or a separate pump and piping so as to comply with state laws and local ordinances.

Subd. 8. Washers shall be of substantial construction to prevent leakage of solvent, shall be securely mounted on rigid noncombustible supports, securely attached to the floor.

a. The cylinders and shells of all washing machines and drying tumblers and all above ground containers shall be permanently and effectively grounded. The grounding of the cylinder in each case shall be through the trunnion shaft and, in cases where wooden cylinders are used, shall be grounded also across the inner surface of the cylinder. The walls of drying cabinets and the outside shell of extractors shall be permanently and effectively grounded.

b. All pulleys, belting, gears, and other rotating or oscillating parts shall be enclosed in suitable guards unless their locations in the final assembly are such that the operators are not likely to come in contact with them.

c. Washing machines shall be of substantial construction and provided with splash-proof doors of the outside case hinge type and shall be provided with interlocks to prevent cylinder rotations under power except for inching when doors are open.

d. Each washing machine shall be provided with an overflow pipe one size larger than the size of the solvent supply line of the washer. Such overflow shall be connected to the shell of the washer so that the top of the overflow is below the bottom of the trunnion shaft, shall be without shut-off valves, and shall be arranged to discharge to an underground tank or to a suitable above ground container. Such above ground container shall be emptied at the end of each day's work and oftener if necessary.

e. The supply pipe shall enter the washing machine above the charged liquid level.

f. Each washer shall be provided with a substantially constructed button and lint trap to prevent foreign matter from entering tanks or pumps. Button and lint traps shall be equipped with suitable lids.

Subd. 9. Extractors shall be of substantial construction, shall be securely mounted on rigid noncombustible supports, securely attached to the floor.

a. The baskets shall have a rim of nonferrous metal and shall be well balanced.

b. Extractors shall be provided preferably with nonferrous metal liquid tight covers, or they shall be designed so that none of the liquid solvent is thrown out of the extractor while it is in operation. The cover shall be equipped with automatic, mechanical, or electrical interlocks which will prohibit operating the extractors while the cover is open and which will prohibit opening the cover until the basket comes to rest.

c. Extractors shall be provided with a drain pipe not less than one and one-half inches in diameter connected direct to underground storage tanks, to a suitable above ground container, or to the washer through an approved extractor pump with connections fitted with proper valves.

d. Brakes, if used, shall be so designed as to prevent the creation of sparks or excessive heat.

e. Extractors shall not be operated at a speed in excess of that prescribed by the manufacturer as shown on the name plate which must be provided on each machine.

Subd. 10. Drying tumblers shall be of substantial construction, shall be securely mounted on rigid noncombustible supports, securely attached to the floor.

a. Drying tumblers and drying cabinets shall be constructed so that the solvent is removed from the fabrics and

the machine (by evaporation and dilution with heated air flow) without the formation of flammable mixtures of vapor and air.

b. The air flow temperature shall be below the flashpoint of the solvent while the machine is being loaded or unloaded.

c. A motor driven fan for inducing air flow, heating coils, and the necessary automatic controls and interlocks shall be integral parts of the machine. The door shall be automatically locked in the closed position if the temperature exceeds the flashpoint of the solvent and can be released only when the temperature drops below the flashpoint temperature.

d. In the event of electric power failure, the interior of the drying tumbler or cabinet shall be automatically flooded with steam until the electric service is restored and the temperature within the tumbler or cabinet is below the flashpoint of the solvent.

e. Steam or hot water only shall be used to secure the necessary temperature in the drying tumblers and cabinets.

f. The fan incorporated in a drying tumbler or drying cabinet shall be properly housed and so interlocked as to assure operation while the machine is in use. The fan spiders, blades, or running rings shall be constructed of nonferrous metal. In no case shall the fan motor be mounted within the ventilating duct.

g. Drying tumblers and cabinets shall be ventilated to the outside air by means of properly constructed pipes and ducts connected to the exhaust side of the fan incorporated in the machine. Such discharge pipes shall be carried to a height of not less than six feet above the roof.

h. Discharge pipes shall not terminate within ten feet measured horizontally from any door, window, or frame wall of any adjoining building.

j. Drying tumblers shall be provided with interlocks so that the cylinders cannot be power driven while the access door is open. Opening the access door shall automatically stop the cylinder drive motor.

Subd. 11. Stills and condensers shall be of substantial construction, shall be securely mounted on rigid noncombustible supports, securely attached to the floor.

a. Steam or hot water only shall be used as a source

of heat. If steam is used, a pressure regulating valve shall be installed in the steam supply line to the still.

b. Stills and condensers shall be liquid and gas tight.

c. Stills shall be designed for operation on the vacuum principle.

d. If a relief valve is provided it shall be equipped with a vent line extending to the outside.

e. A check valve shall be installed in the steam line between the boiler and the still.

f. Each still shall be provided with a combination vacuum and pressure gauge.

g. Each still shall be equipped with a constant level valve to automatically maintain the solvent liquid level in the still at the proper height.

Subd. 12. All scouring or brushing and spotting (prespotting) operations should preferably be conducted with liquids or solvents having a fire hazard rating of 25 or less, except that solvents have [having] a higher hazard rating may be used in quantities not exceeding a total of one gallon when dispensed from approved safety cans; additional storage shall be in approved safety cans of not over one gallon capacity.

a. When scouring or brushing operations utilize solvents rating above 25 in excess of one gallon, such operations shall be conducted in separate buildings or rooms complying in all respects with the requirements for the class of system indicated by the hazard of the solvent and including the detailed requirements for scouring, brushing and scrubbing as specified in this act.

b. No washing or scrubbing with solvents rated above 25 shall be carried on in any Class III plant.

c. The brushing (prespotting) table shall have a liquid tight top with a curb on all sides not less than one inch high. The top of the table shall be pitched so as to insure thorough draining to a one and one-half inch drain connected to a suitable container especially provided and marked for that purpose.

Subd. 13. Suitable first aid fire protection shall be provided in accordance with state laws and local ordinances.

a. Approved first aid extinguishing devices of a type suitable for use on flammable liquid fires shall be provided for every room or area where flammable liquids are used. In

no case shall there be less than one extinguisher of B-1 rating at each entrance of every room or area where flammable liquids are used.

Sec. 16. [76.47] **Class IV plants.** Dry cleaning plants or systems utilizing solvents classified as nonflammable, or as nonflammable at ordinary temperatures and only slightly flammable at higher temperatures (rated not over 5) shall be designed as Class IV installations.

Subdivision 1. Special regulations for control of the solvents are not required because of their low fire hazard. Only Class IV solvent shall be used in any dry cleaning machine or system designed for Class IV solvents.

a. Where other solvents are used in the machines, the plant status shall be changed to comply with the sections of these standards applicable to the rating of the most hazardous solvents used.

b. Plants in this category shall have adequate ventilation and it is recommended that they not be located or operated in basements or areas difficult to ventilate.

c. Machines shall be of substantial construction and shall be mounted on rigid supports, securely attached to the floor.

Subd. 2. Lighting shall be by electricity. All electrical equipment devices and wiring for light and power shall be installed in accordance with the requirements of the National Electrical Code.

a. Any direct fired heating appliance within a plant utilizing Class IV solvents shall be equipped with a corrosion resistant flue and draft hood to conduct the products of combustion to the outdoors.

Subd. 3. Machines should be operated in accordance with operating instructions furnished by the machinery manufacturers.

a. Flammable liquids used for spotting operations shall be used in quantities not exceeding a total of one gallon when dispensed only from approved safety cans; additional storage shall be in approved safety cans of not over one gallon capacity.

Subd. 4. Suitable first aid fire protection shall be provided in accordance with state laws and local ordinances.

Sec. 17. [76.48] **Operating requirements for Class I, Class II and Class III plants.**

Subdivision 1. All employees shall be thoroughly instructed as to the hazards involved in their departments and in the work which they perform.

Subd. 2. Clothing shall be thoroughly searched in the receiving room and all foreign materials, especially matches and metallic substances.

Subd. 3. In removing clothes from the washer, provision shall be made for minimizing the dripping of solvent on the floor. When clothes are transferred from a washer to a drain tub, a nonferrous metal drip apron shall be placed so as to rest on the drain tub and the cylinder of the washer.

Subd. 4. The lint and refuse shall be removed from all traps after the close of the day's work, deposited in approved waste cans, removed from the premises and disposed of safely. At all other times the trap covers shall be kept securely in place.

Subd. 5. Flammable liquids shall not be used for cleaning floors.

Subd. 6. Smoking shall be strictly prohibited except at designated smoking areas. "No Smoking" signs shall be posted.

Subd. 7. On the discovery of fire, the ventilating system shall be shut down immediately.

Subd. 8. In order that reliable operation of the steam or other extinguishing system may be assured, periodic inspections of all valves and piping shall be made. Steam lines shall also be subjected to test.

Sec. 18. [76.49] **Substitution of solvents.** In the event of a national emergency causing a shortage of solvents required by this act, the state fire marshal may provide for the use of synthetic or substitute solvents and the use of such solvents shall not be deemed to be a violation of this act.

Sec. 19. [76.50] **Application.** The provisions of this chapter shall not be held to apply to any building, business or establishment licensed to use 190 solvent provided that they continue to use 190 solvent in their operations.

a. In the event that any plant now using solvent 190 changes to a lower classified solvent, it shall comply with the requirements specified for Class III dry cleaning systems as set forth in this act.

b. Nothing in this act shall be held to in any manner limit the laws which provide against fire hazards in this state.

c. Nothing in this act shall permit any person to operate a business or establishment mentioned in this act without first securing a license as provided herein, for so doing, but the provisions of this act shall be given full consideration by the state fire marshal in reissuing licenses to persons now engaged in said business.

Sec. 20. [76.51] **Abandonment of business.** Should any building, business or establishment of dry cleaning or dry dyeing as herein defined be discontinued or not carried on in any building which does not conform to the provisions herein set forth for a period of 90 days, such business shall be considered as having been abandoned; and before the same can again be carried on in such building, the building must be so constructed, repaired or rebuilt as to conform to the provisions of this act.

Subdivision 1. The period of 90 days herein stated is not to be construed as such period when the plant is under construction or repair or operated in its regular capacity as a going business. Operation of the plant for short periods of time within the said period of 90 days with the intent to evade the provisions of this section shall be considered as an attempt to interfere with the operation of this act.

Sec. 21. [76.52] **Inspections required.** All buildings, structures, pipes, storage tanks, electrical wiring, connections and apparatus constructed and used in any dry cleaning and dry dyeing business shall be inspected and approved by the state fire marshal or a deputy or assistant before being used in the dry cleaning and dry dyeing business.

Sec. 22. [76.53] **Violations, penalties.** Any person or persons being the owner, occupant, lessee or agent, who shall violate any of the provisions of this act or fail to comply therewith, or who shall violate or fail to comply with any order or regulation made thereunder, within ten days, or who shall build in violation of any detailed statement or specifications or plans submitted and approved thereunder, or any certificate or permit issued thereunder shall severally for each and every violation and noncompliance respectively be guilty of a misdemeanor, and upon conviction thereof, fined for the first offense not less than ten dollars nor more than $200, and for the second offense shall be fined not less than $50 nor more than $500 and imprisoned in a county jail or workhouse not exceeding six months.

Sec. 23. [76.54] **Enforcement.** It shall be the duty of the state fire marshal, his deputies and assistants, to enforce the provisions of this act, and he shall have the same

power and authority as under the provisions of chapter 73 to 76 of Minnesota Statutes of 1949.

Subdivision 1. They shall administer and enforce the laws relating to the construction, regulation, safety, and operation of dry cleaning and dry dyeing establishments; investigate, ascertain, declare and prescribe what reasonable standards for the adoption of improvements or other means or methods including the prescribing, modifying and enforcement of reasonable orders pertaining thereto, necessary to prevent fires and explosions and for the protection and safety of employees and the public in dry cleaning and dry dyeing establishments, not inconsistent with this act, but these requirements and regulations shall also be required of alterations and changes undertaken by existing dry cleaning and dry dyeing establishments.

Subd. 2. No local government shall enact any regulation or ordinance which is inconsistent with the state law or with the rules, regulations, or standards adopted by the state fire marshal pursuant to this section. Nothing in this section shall be construed to affect the power or [of] any local government, when so authorized by law, to regulate the use of land by zoning.

Sec. 24. [76.55] **Money collected paid into state fire marshal fund.** All fees, penalties or forfeitures collected by the state fire marshal, his deputies or assistants under the provisions of this act, shall be paid into the state treasury, credited to the state fire marshal fund, and shall be disbursed in the same manner as other moneys in the fund are disbursed.

Sec. 25. **Repealer.** Minnesota Statutes 1953, Sections 76.01 to 76.31, inclusive, are hereby repealed.

Sec. 26. This act shall become effective July 1, 1955.

Approved April 18, 1955.

CHAPTER 479—H. F. No. 67

An act relating to the control of tuberculosis; the authority of the commissioner of public welfare; amending Minnesota Statues 1953, Section 144.422, Subdivision 9.

Be it enacted by the Legislature of the State of Minnesota:

Section 1. Minnesota Statutes 1953, Section 144.422, Subdivision 9 is amended to read:

Subd. 9. **Expenses and cost, payment.** The expense of