960528CNE5144

CHAPTER 26

PUBLIC RECREATIONAL BATHING

SUBCHAPTER 1. PURPOSE, SCOPE AND DEFINITIONS

8:26-1.1 Purpose

The purpose of this chapter shall be to set reasonable sanitary and safety regulations for public recreational bathing places and to preserve and improve the public health in this state as provided for in N.J.S.A. 26:1A-7.

8:26-1.2 Scope

These rules shall govern all recreational bathing places in the State of New Jersey with the exception of a private bathing place as defined in 8:26-1.3. The provisions of the State Sanitary Code have the force and effect of law. Under the authority of N.J.S.A. 26:1A-9, the provisions are enforceable by the State Department of Health, local departments of health, local police authorities, local sheriff's departments and other enforcement agencies.

8:26-1.3 Definitions

The following words and terms, when used in this Chapter shall have the following meanings unless the context clearly indicates otherwise:

"Adult" means a person aged 18 years or older.

"Alter" means and includes any modification, or relocation of any structure or equipment, or diversion and change of water flow patterns in an existing recreational bathing place such that the design, configuration and/or operating characteristics are different from the original design, configuration and/or operating characteristics. The term does not include normal maintenance, repair or replacement of equipment previously approved.

"Approved" means acceptable to the State Department of Health or the local health authority based on its determination as to conformance with appropriate standards and good public health practices.

"Authorized agent" means a licensed health officer, sanitary inspector, or any other properly qualified and licensed person who is delegated to function within specified limits as the agent of the local health authority or the department.

"Bathing beach" means the designated area of a natural or artificially constructed pond, lake, stream, river, bay, tidal waters, ocean or other body of fresh or salt water, which is used for bathing and swimming purposes together with buildings, equipment, and appurtenances, if any, and the land areas used in connection therewith.

"Certified laboratory" means a water laboratory certified by the New Jersey Department of Environmental Protection.

"Common interest community" means:

1. Property subject to the Condominium Act, P.L. 1969, c.257 (N.J.S.A. 46:8B-1 et seq.), The Horizontal Property Act, P.L. 1963, c.168 (N.J.S.A. 46:8A-1 et seq) and The Continuing Care Retirement Community Regulation and Financial Disclosure Act (N.J.S.A. 52:27D-330 et. seq.);

2. A housing corporation or association, commonly known as a cooperative, which entitles the holder of a share or membership interest thereof to possess and occupy for dwelling purposes a house, apartment, manufactured or mobile home or other unit of housing owned or leased by the corporation or association or to lease or purchase a unit of housing constructed or to be constructed by the corporation or association; or

3. Real estate with respect to which a person, by virtue of his ownership of a unit, is obligated to pay for real estate taxes, insurance premiums, maintenance or improvement of other real estate described in the instrument, however denominated, which creates the common interest community. Ownership of a unit does not include holding a lease-hold interest of less than 20 years in a unit, including renewal options.

"Construct" means and include building or installing a new recreational bathing ~~place~~ or altering an existing recreational bathing place or any of its facilities.

"Deck" means those areas surrounding a pool which are specifically constructed or installed for use by bathers.

"Department" means the State Department of Health.

"Diving" means entering a body of water head first.

"Health authority" means the agent of the Local Board of Health and/or State Department of Health duly licensed to act in the enforcement of its ordinances and the sanitary laws of the state.

"Hot tub or spa" means any pool having a maximum depth of 48 inches (1.2 meters) used in conjunction with high velocity water recirculation systems, utilizing hot, cold, or ambient temperature water either mineral or nonmineral in nature, which is not emptied after each individual use. (Industry terminology for a hot tub or spa includes, but is not limited to, therapeutic pool, whirlpool, and hydrotherapy pool.)

"Lifeguard" means a person who holds a lifesaving/lifeguarding certificate issued from an organization recognized by the New Jersey State Department of Health, as listed in the Appendix at the end of this chapter.

"Locate" means designating the site or place of a recreational bathing place.

"Nephelometric Turbidity Unit (NTU)" means the turbidity of a specified concentration of formazin suspension used when measuring water clarity.

"Operate" means to conduct, maintain, or otherwise provide facilities for recreational bathing.

"Person" means any corporations, companies, associations, societies, clubs, firms, partnerships, joint stock companies, governmental agencies as well as individuals.

"Private bathing place" means a body of water, natural or modified by man used for swimming, diving, and recreational bathing by an individual, family, or living unit member(s) and their guests which shall not serve any type of cooperative housing or joint tenancy of three or more living units.

"Private lake/river/bay or private community lake/river/bay association" means an organization of property owners within a fixed for defined

960528 CNE-5144

unit or units of such swimming pools shall be made in accordance with the applicable provisions of these rules.

8:26-2.6 Existing hot tubs and spas

N.J.A.C. 8:26-4.1 through 8:26-4.13 relating to location and construction shall not apply to hot tubs and spas that were constructed prior to the effective date of this Chapter, except that any alternations of any unit or units of such hot tubs and spas shall be made in accordance with the applicable provisions of these rules. The provisions for heater and temperature requirements at N.J.A.C. 8:26-4.4 and disinfectant and chemical feeders at N.J.A.C. 8:26-4.10 shall apply to all hot tubs and spas.

8:26-2.7 Pre-operational inspection

Whenever plans, specifications and reports, as required by N.J.A.C. 8:26-2.1, are submitted to the health authority for review and approval, the health authority shall inspect the recreational bathing place prior to opening for public use, to determine compliance with the requirements of this chapter.

8:26-2.8 Approval to operate

A recreational bathing place shall not be opened for public use until the health authority has given formal approval by issuance of an appropriate approval, license or permit. This approval, license or permit shall be displayed in a conspicuous place on the premises where it may be readily observed by all patrons. No person shall operate a recreational bathing place whose approval, license or permit has been suspended.

8:26-2.9 Modification and waiver of standard

(a) Any person or authorized agent, confronted with practical difficulties in carrying out the strict compliance with any rule in this chapter, may apply to the health authority in writing for a modification thereof. Only a modification that will not constitute a definite hazard to life or property will be considered. The decision of the health authority, including the particulars of the application, shall be entered upon the records of the health authority and a copy thereof sent to the applicant.

(b) The health authority may waive temporarily any rule to allow for experimentation and a demonstration of new and innovative approaches relating to the operation, construction, and maintenance of a recreational bathing place. Only waivers that will not constitute a definite hazard to life or property will be considered.

SUBCHAPTER 3. SWIMMING POOLS

8:26-3.1 General layout and design

(a) The location of all proposed pools shall be such that a safe and adequate water supply and sanitary disposal facilities will be available.

(b) The layout of the pool facility shall be such that bathers leaving the dressing rooms will have access to toilets and then shower facilities. Exits and entrances to the pool enclosure should be located at the shallow end of the pool. Exits and entrances to the pool which are located at the deep end shall be separated from the pool by a minimum of six feet of decking or by a physical barrier.

8:26-3.2 Construction materials

(a) Swimming pools and all appurtenances thereto shall be constructed of materials which are: nontoxic, which are impervious and enduring, can withstand the design stresses, and which will provide a watertight structure with a smooth and easily cleaned surface without cracks or joints, excluding structural joints, or to which a smooth, easily cleaned surface finish can be applied or attached.

(b) Sand or earth shall not be permitted as an interior finish in a swimming pool.

(c) The surfaces within a swimming pool intended to provide footing for bathers shall be designed to provide a slip-resisting surface. The roughness or irregularity of such surfaces shall not cause injury or discomfort to the bather during normal use.

(d) The color, pattern or finish of the pool interior shall not obscure the existence or presence of objects or surfaces within the pool.

(e) All construction materials shall be in conformance with the regulations set forth in the New Jersey Uniform Construction Code, N.J.A.C. 5:23.

8:26-3.3 Dimensional design

(a) No specific limits are required for the shape of swimming pools except that consideration shall be given to shape from the standpoint of safety and circulation of the swimming pool water. There shall be no protrusions, extensions, means of entanglement, or other obstructions in the swimming ~~area~~ of the pool which can cause the entrapment or injury of the bather.

(b) The pool capacity shall be based on the following criteria:

1. Pools with deck areas less than the water area:

i. Fifteen square feet (1.4 square meters) of shallow, instructional and/or wading areas for each bather.

ii. Twenty square feet (1.9 square meters) of deep area (not counting that area figured as diving area) for each bather.

iii. Three hundred square feet (27.9 square meters) of diving area per diving board for each bather.

2. Pools with deck areas at least equal to the water area:

i. Twelve square feet (1.1 square meters) of shallow, instructional and/or wading areas for each bather.

ii. Fifteen square feet (1.4 square meters) of deep area (not counting that area figured as diving area) for each bather.

iii. Three hundred square feet (27.9 square meters) of diving area per diving board for each bather.

3. Pools with deck areas at least equal to twice the water area:

i. Eight square feet (.7 square meters) of shallow, instructional and/or wading areas for each bather.

ii. Ten square feet (.9 square meters) of deep area (not counting that area figured as diving area) for each bather.

iii. Three hundred square feet (27.9 square meters) of diving area per diving board for each bather.

	Shallow Instructional or Wading Areas	Deep Area (not including the diving area)	Diving Area (per each diving board)
Pools With Deck Area Less Than Water Area	15 square feet per bather	20 square feet per bather	300 square feet per bather
Pools With Deck Area At Least Equal to Water Surface Area	12 square feet per bather	15 square feet per bather	300 square feet per bather
Pools With Deck Area At Least Twice The Water Surface Area	8 square feet per bather	10 square feet per bather	300 square feet per bather

960528 WE 5144

(b) Where water depths are 24 inches (60 entimeters) or less at the pool wall, such areas shall be onsidered as providing their own natural mode for ntry/exit.

(c) Below the water level, there shall be a clearance f not more than 6 inches nor less than 3 inches etween any ladder tread edge, measured from the ool wall side of the tread, and the pool wall.

(d) Recessed treads shall have a minimum tread of 5 nches and a minimum width of 12 inches. Recessed reads shall drain into the pool to prevent the ccumulation of dirt thereon and shall be slip-resistant.

8:26-3.12 Enclosure

(a) Pools shall meet the fencing and enclosure equirements of the New Jersey Uniform Construction Code, N.J.A.C. 5:23.

NOTE: A 10 foot high fence for public swimming pools is recommended.

8:26-3.13 Electrical, illumination and ventilation requirements

(a) All electrical wiring, illumination and ventilation shall be in conformance with the regulations set forth in the New Jersey Uniform Construction Code, N.J.A.C. 5:23.

(b) Illumination shall be such that a black disk 6 inches (15.2 centimeters) in diameter, superimposed upon a white field placed at the bottom of the deepest end of the pool shall be clearly visible from the pool sidewalk, at all distances up to 10 yards, measured in a horizontal distance from the project of the disk onto the pool surface when the pool is in use.

8:26-3.14 Diving stands, boards, slides and floats

(a) Diving stands, boards, slides and floats shall be constructed in accordance with the the New Jersey Uniform Construction Code, N.J.A.C. 5:23.

(b) For indoor pools, at least 16 feet of headroom above the highest board must be provided.

(c) Water depth and distance based on board height shall be as follows:

1. Minimum water depth and distances for diving boards for all public pools based on board height shall equal or exceed the minimum requirements of the New Jersey Uniform Construction Code, N.J.A.C. 5:23.

2. Diving equipment for use by the general public shall not be more than 10 feet (3 meters) above the water level.

(d) Foot contact surfaces of diving equipment shall be slip-resistant.

8:26-3.15 Recirculation system

(a) The recirculation system equipment shall be of adequate size to turn over the entire pool water capacity at least once every 8 hours. Water clarity shall be maintained. (Clarity is a function of proper filtration and maintenance of proper chemical operational parameters.) When standing at the pool's edge at the deep end, the deepest portion of the pool floor shall be clearly visible.

(b) A pump and motor shall be provided for circulation of the pool water. Performance of all pumps shall meet or exceed the conditions of flow required for filtering and cleaning (if applicable) the filters against the "total dynamic head" developed by the complete system.

1. Pumps shall be selected to perform the functions for which they were designed by the manufacturer. Pumps and motors must be accessible for inspection and service.

2. When the pump is below the water level of the pool, valves shall be installed on permanently connected suction and discharge lines, located in an accessible place outside the walls of the pool, where they will be readily and easily accessible for maintenance and removal.

3. The design and construction of the pump and component parts shall provide safe operation that is not hazardous to the operator or maintenance personnel.

4. All motors shall have thermal or current overload protection, either built in, or in the line starter, to provide locked rotor and running protection.

5. The motor frame shall contain adequate provisions for proper grounding as specified in New Jersey Uniform Construction Code, N.J.A.C. 5:23.

(c) Protection of potable water supply shall comply with the New Jersey Uniform Construction Code, N.J.A.C. 5:23.

1. Physical connections between potable water systems and pool circulation systems shall not be permitted.

2. Potable water for make-up purposes shall be added by way of an over- the-rim spout properly shielded which does not create a safety hazard. The open end of the spout shall have no sharp edges and protrude no more than 2 inches (5.1 centimeters) beyond the edge of the pool.

NOTE: It is recommended that the spout be located adjacent to the ladder.

3. An alternate method of adding make-up water may be employed, with the approval of the health authority.

(d) Hair and lint catchers shall be provided with all pressure filter systems, and shall contain a removable strainer upstream of the circulation pump(s) to remove solids, debris, hair, lint, etc. Water entering the pump shall pass through the removable strainer.

(e) Inlets and outlets shall be constructed in the following manner:

1. Pool inlet(s) and outlet(s) for circulated water shall be located to produce uniform circulation of water and to facilitate the maintenance of a uniform disinfectant residual throughout the entire pool. Inlet(s) from the circulation system shall be designed so as not to constitute a hazard to the bather.

i. Where skimmers are used, the inlet(s) shall be located so as to help bring floating particles within range of the skimmers.

2. All pools shall be provided with a main drain in the lowest point of the pool floor. The spacing of the main drains for pool pump suction shall not be greater than 20 feet on centers nor more than 15 feet from each side wall.

3. The main drain pumps shall be covered with suitable protective covers or grates. Outlet drain covers and grates shall be installed in such a way that they cannot be removed without the use of tools. The total velocity through grate openings shall not exceed 2 feet per second.

4. The grate opening shall not exceed 1/2 inch and be designed to prevent physical entrapment of fingers, toes, etc.

5. The system shall provide at least 1 antivortex outlet drain.

6. In depths 4 feet 6 inches (1.37 meters) or less, the antivortex drain shall not provide a tripping or stubbing hazard to the feet.

7. Where only one main drain is provided, it shall be of the antivortex design, and velocity shall not exceed 6 feet per second.

960528 CNE 5144

8. Facilities shall include a scale suitable for veighing chlorine cylinders. Changing cylinder(s) shall ›e accomplished only after weighing proves contents of ylinder to be exhausted. NOTE: Care must be taken to ›revent water suck-back into cylinder when empty by losing the cylinder valve.

9. Valve protection caps and valve outlet caps hall be in place at all times except when the cylinder is :onnected for use. Cylinders must not be dropped and hall be protected from falling objects. Cylinders should ›e used on a first-in, first-out basis. New, approved vashers shall be used each time a cylinder is connected.

(d) Chemical feeders installation and use shall :onform to the following:

1. When using chemical feeders, they shall be installed downstream from the filter and heater.

2. If the chemical feeder is equipped with its own pump, it shall be installed so it introduces the gas or solution downstream from the heater and, if possible, at a position lower than the heater outlet fitting.

3. Chemical feed pumps shall be wired so they cannot operate unless the filter pump is running. If the chemical feeder has an independent timer, the chemical feed pump timers shall be interlocked.

(e) Electrolytic chlorine generators, when used for producing chlorine for disinfection, shall conform to the following:

1. Electrolytic chlorine generators shall be able to insure adequate feed to meet the chlorine residual specified in N.J.A.C. 8:26-7.9

2. A sodium-chloride test kit shall be provided to monitor the salt concentration of the pool water.

(f) Bromination, when used for disinfection, shall conform to the following:

1. A bromine test kit shall be provided to monitor the bromine concentration of the pool water.

2. Brominator equipment rooms shall be constructed and ventilated as required in N.J.A.C. 8:26-3.20(c).

(g) Slurry feeders for the addition of pre-coat material, pH adjustment, coagulants and corrosion control chemicals may be used, provided they are approved by the National Sanitation Foundation or its equivalent.

(h) Other disinfecting materials or methods may be accepted by the health authority when they have been adequately demonstrated to provide a satisfactory residual effect which is easily measured and equally as effective in conditions of use as the chlorine concentration specified in N.J.A.C. 8:26-7.9 and not dangerous to public health, not creating objectionable physiological effects, and not imparting toxic properties to the water. (See N.J.A.C. 8:26-7.)

(i) Combustible chemicals shall be stored away from water, cleaning solutions, and organic materials which may cause fire or explosion. "No Smoking" signs shall be posted in areas where these chemicals are stored.

SUBCHAPTER 4. HOT TUBS AND SPAS

8:26-4.1 General provisions

(a) Hot tubs, spas, whirlpools and hydrotherapy pools shall be constructed, maintained, and operated in accordance with the applicable provisions found within this Subchapter and as indicated in N.J.A.C. 8:26-3.

8:26-4.2 General construction and design

(a) The maximum water depth of the hot tub or spa shall be 4 feet (1.22 meters) measured from the water line. Exceptions may be made for pools designed for special purpose, such as, instruction, treatment and therapy.

(b) The maximum depth of any seat or sitting bench in the spa shall be 2 feet (61 centimeters) measured from the water line.

(c) Hot tubs and spas shall be provided with a suitable handhold around their perimeter in areas where the water depth exceeds 3 feet 6 inches (1.07 meters). Handholds shall be provided no further apart than 4 feet (1.22 meters) and may consist of any one or a combination of the following:

1. Coping, ledges, radiused flanges, or decks along the immediate top edge of the pool providing a suitable slip-resistant handhold located not over 12 inches (30 centimeters) above the water line.

2. Ladders, steps or seat ledges.

3. A railing placed at or not over 12 inches (30 centimeters) above the water line fastened to the wall.

(d) The slope of the hot tub or spa floor shall not exceed 1 foot (30 centimeters) of fall in 12 feet (3.6 meters).

(e) There shall be no protrusions, extensions, means of entanglement of other obstructions which can cause entrapment or injury to the bather.

(f) Steps, ladders or recessed treads shall be provided where pool depths are greater than 24 inches (61 centimeters).

(g) Hot tubs and spas shall be equipped with at least one handrail (or ladder equivalent) for each 50 feet (15.2 meters) of perimeter, or portion thereof, to designate the point of entry and exit.

(h) The design and construction of hot tub and spa steps (including recessed steps) when required, shall conform to the following:

1. Step treads shall have a minimum unobstructed tread depth of 10 inches (25 centimeters) for a minimum width of 12 inches (30 centimeters).

2. Riser heights shall not be less than 7 inches (18 centimeters), nor greater than 12 inches (30 centimeters). When the bottom tread serves as a bench or seat, the bottom riser may be a maximum of 14 inches (35 centimeters).

3. The first and the last risers need not be uniform but must comply with riser height requirements as noted in 2. above. The first (top) riser is measured from the finished deck.

4. Intermediate risers, those between the first and last risers, shall be uniform in height.

5. Step treads shall have slip-resistant tread surfaces.

6. Each set of steps shall be provided with at least one handrail to fully serve all treads and risers.

7. Seats or benches may be provided as part of the steps.

(i) Handrails shall be anchored in such a way that they can only be removed with tools.

1. The leading edge of handrails facilitating spa exit shall be located within 18 inches (45.7 centimeters) plus or minus 3 inches (7.6 centimeters), horizontally measured from the vertical plane of the bottom riser.

(j) The design and construction of spa ladders, when required, shall conform to the following:

1. Ladders shall be made entirely of corrosion-resistant materials.

2. Ladder treads shall have slip-resistant tread surfaces.

3. Ladder designs shall provide two handholds or handrails to fully serve all treads.

4. The maximum outside diameter of handrails shall be 1.9 inches (4.8 centimeters) and a minimum of 1 inch (2.5 centimeters).

960 528 CNE 5144

obtained from NSF, National Sanitation Foundation, 3475 Plymouth Road, P.O. Box 1468, Ann Arbor, Michigan 48106.)

5. A means shall be provided to permit release of air which enters the filter tank. This may be automatic or manual, as air must be expelled from the filter tank. Any filters and/or separation tanks incorporating an automatic internal air release as its principal means of air release shall have a means to provide a slow and safe release of pressure as a part of its design.

6. Filter backwash shall be disposed of in accordance with N.J.A.C. 8:26- 6.5.

8:26-4.9 Pumps and strainers

(a) A pump and motor shall be provided for circulation of the hot tub or spa water and sized to meet the requirements of N.J.A.C. 8:26-4.8(a).

(b) Pumps shall be designed to perform the functions for which they are intended. Units must be accessible for inspection and service. Replacement parts must fit with existing parts in the pump without the need for redrilling mounting holes or otherwise altering the replacement part of the pump.

(c) The design and construction of the pump and component parts shall provide safe operation.

(d) Where a mechanical seal is provided, components of the seal must be corrosion-resistant and capable of operating under conditions normally encountered in hot tub or spa operation.

(e) Proper direction of rotation for the pump shall be clearly indicated on the pump.

(f) Motors shall have as a minimum, an open drip-proof enclosure (as defined by National Electrical Manufacturers Association Standards), constructed electrically and mechanically so it will perform satisfactorily and safely under the conditions of load and environment normally encountered in the hot tub or spa installation.

1. Motors shall be capable of operating the pump under full load with a voltage variation of at least 10 percent from nameplate rating. If the maximum service factor of the motor is exceeded (at full voltage), the manufacturer shall indicate this on the pump curve.

2. All motors shall have thermal overload protection, or equivalent, either built in or in the line starter, to provide locked rotor and running protection.

3. The motor frame shall contain adequate provisions for proper grounding.

(g) Strainers shall be provided on all filter systems. Strainers shall be removable and shall be up stream from all circulation pumps to remove solids, debris, hair, lint, etc.

1. Water entering the pump shall pass through the strainer.

(h) Valves shall be located where they will be readily and easily accessible for maintenance and removal.

1. Multiport valves shall comply with the National Sanitation Foundation Standard covering multiport valves.

2. When the pump is below the overflow rim of the hot tub or spa, valves shall be installed on permanently connected suction and discharge lines and located in an accessible place outside the walls of the hot tub or spa.

8:26-4.10 Disinfectant and chemical feeders

(a) A means of disinfecting the hot tub or spa water shall be employed which provides a disinfecting residual in the hot tub or spa water. (Chlorine or chlorine compounds are most frequently used for this purpose but other bactericidal agents shall be acceptable if registered by the U.S. Environmental Protection Agency.)

(b) Adequate and appropriate procedures for continously introducing a disinfectant into the recirculation system for hot tubs or spas shall be used. The means of introducing approved disinfecting agents shall be sufficient to maintain the appropriate disinfectant residual as required in 8:26-7.13.

8:26-4.11 Air induction systems

(a) An air induction system, when provided, shall totally prevent water back- up.

NOTE: Water back-up can cause electrical shock hazards.

(b) Inducted air shall not introduce contaminants (such as deck water, dirt, etc.) into the hot tub or spa.

8:26-4.12 Overflow systems

(a) An overflow system shall be provided. The overflow system shall be designed and constructed so that the water level of the hot tub or spa is maintained at the operating level of the overflow device.

(b) When surface skimmers are used as the sole overflow system one surface skimmer shall be provided for each 100 square feet (9.3 square meters) or fraction thereof of the hot tub or spa surface area. When two or more skimmers are used in a hot tub or spa they shall be located to maintain effective skimming action over the entire surface area of the hot tub or spa.

8:26-4.13 Enclosure of hot tubs and spas

Hot tubs and spas shall meet the fencing and enclosure requirements for swimming pools found in the New Jersey Uniform Construction Code, N.J.A.C. 5:23.

SUBCHAPTER 5. WATERFRONT SAFETY

8:26-5.1 Exceptions

(a) This subchapter in its entirety applies to all public recreational bathing places, with the exception of private lake/river/bay or private community lake/river/bay associations and common interest communities that restrict the use of its recreational bathing places to the owners of the dwelling units thereof and their invited guests. Under this condition, said facilities shall be exempt from mandatory compliance with N.J.A.C. 8:26-5.2(b), (d), (f), (g) and (i); 5.5(b); 5.6(a); 5.7(a)1; 5.8(c)2, 4, 6 and 7; and 5.8(d). This exception does not apply to facilities utilizing ocean waters. For the purpose of the subchapter, invited guests may also include occupants or tenants of the dwelling units thereof which by affirmative designation by the lake/river/bay association or common interest community through language incorporation into the bathing place rules, association rules and bylaws, and lease agreements are granted such status and corresponding responsibilities normally associated with that of an invited guest.

(b) Private lake/river/bay or private community lake/river/bay associations and common interest communities that restrict the use of its recreational bathing places to the owners of the dwelling units and their invited guests which do not voluntarily comply with the specific sections referenced above shall post a sign which shall be prominently displayed at every entrance of the recreational bathing place stating:

- "No lifeguard on duty."
- "Persons under the age of 16 must be accompanied by an adult."
- "No swimming alone."

960528CNE5144

1. Water depth of the pool at the bulkhead (at pool side) where starting blocks are located shall be at least four feet.

2. Only the "flat dive" also known as a "forward start" shall be used.

3. Signs shall be conspicuously placed to remind swimmers of the danger of using any other type of dive when diving into waters less than five feet deep.

4. Swimmers shall be under the direct supervision of the team swim coach; and

5. When the diving blocks cannot be removed, a safety policy must be established to assure that the diving blocks are not inadvertently used by an untrained swimmer or by the general public.

8:26-5.5 Wading pool supervision

(a) A responsible individual, knowledgeable and trained in a program developed by the designated adult supervisor, shall be present when the wading pool is in operation.

(b) A wading pool shall have a person currently certified in standard first aid and child and infant cardiopulmonary resuscitation (CPR) on the premises, available, and readily accessible when the wading pool is in use. If the trained and qualified personnel are not stationed at the wading pool, then the facility shall conspicuously post a sign indicating the location and method of access of the person(s) certified in standard first aid and CPR and shall effectively demonstrate to the health authority that said personnel are available, in reasonable proximity to the wading pool, and can be easily contacted to enable them to render the necessary and appropriate assistance in a timely manner.

8:26-5.6 Water slides

(a) Supervision of the the waterfront area of water slides shall be protected by a lifeguard as specified in N.J.A.C. 8:26-5.2 and as follows:

1. At least one person shall supervise the activities of the water slide. Additional supervision of the slide will be required based on the size and configuration of the slide and pool entry area.

(b) Water slides shall be used in accordance with the following:

1. Only feet first entries will be permitted on all water slides.

2. The landing area in front of the slide shall be prohibited for use by other individuals.

(c) Water slides shall not exit into the landing area more than 6 inches above the water surface, if the slide enters into less than 5 feet of water.

1. A slide shall not enter into less than 3 feet of water.

8:26-5.7 Hot tubs and spas

(a) Supervision of a hot tub or spa, when open for use, shall be provided by a designated adult supervisor, who is knowledgeable of these rules and shall be responsible for all phases of the operation, and as follows:

1. At least one person currently certified in standard first aid and cardiopulmonary resuscitation (CPR) shall be on the premises, available, and readily accessible when the hot tub or spa is in use. If the trained and qualified personnel are not stationed at the hot tub or spa, then the facility shall conspicuously post a sign indicating the location and method of access of the person(s) certified in standard first aid and CPR and shall effectively demonstrate to the health authority that said personnel are available, in reasonable proximity to the hot tub or spa, and can be easily contacted to enable them to render the necessary appropriate assistance in a timely manner. These certifications shall be from an organization recognized by the New Jersey State Department of Health (see Appendix).

2. The maintenance and mechanical operation of a hot tub or spa shall be under the supervision of a certified pool operator (CPO). The CPO shall be available to respond to mechanical and maintenance problems if they occur or to detect the potential for such a problem before it occurs, however, it is not necessary for the CPO to be at hot tub or spa or on the premises at all times when the hot tub or spa is in operation. The property owner, a resident, a facility employee, or an employee of a contracted pool service firm are examples of individuals that can be used to fulfill this requirement, once the individual has successfully completed the CPO course and assumes responsibility for providing this function. The certification of a pool operator shall be from an organization acceptable to the New Jersey State Department of Health (see Appendix).

(b) A precaution sign is to be mounted adjacent to the entrance to the hot tub or spa and shall state the following:

CAUTION

- Pregnant women, elderly persons, those suffering from heart disease, diabetes, high or low blood pressure, or those using prescription medications should not enter this hot tub or spa without prior medical consultation and permission from their doctor.
- Unsupervised use by children is prohibited.
- Do not use while under the influence of alcohol, anticoagulants, antihistamines, vasoconstrictors, vasodilators, stimulants, hypnotics, narcotics, or tranquilizers.
- Do not use alone.
- Shower before entering the pool.
- Observe a 15 minute time limit, then shower, cool down and, if you wish, return for another brief stay. Long exposures may result in nausea, dizziness, or fainting.

(c) Depth markings in spas shall be plainly and conspicuously posted and located as follows:

1. Spas shall have the maximum water depth clearly marked.

2. Depth markings shall be positioned within 18 inches (46 centimeters) of the water edge.

3. Depth markings shall be positioned to be read while standing on the deck facing the water.

4. There shall be a minimum of two depth markings per spa, regardless of spa size or shape.

5. Depth markings, shall be spaced at no more than 25 foot (7.6 meters) intervals and shall be uniformly located around the perimeter of the spa.

6. Depth markings in deck surfaces shall be slip-resistant.

(d) Emergency equipment shall be provided by means of a 24 unit first aid kit (see Appendix), available at all times the hot tub or spa is open for use and shall be fully restocked within 24 hours of use.

(e) A clock readable from the hot tub or spa shall be provided.

NOTE: A timer with an audible signal is recommended, in addition to (e) above.

8:26-5.8 Bathing beaches

NOTE: Bathing beaches operated at other than public expense along the seashore must comply with this subchapter N.J.A.C. 26:8.1 et seq. as well as N.J.R.S. 5.1-1 et seq. entitled "Seashore Bathing Establishments".

960528CNE 5744

2. The minimum water depth surrounding a fixed platform or float without a diving board or similar device shall be at 8 feet (2.4 meters) for a distance of 12 feet (3.7 meters) from the platform. For a diving board or other device 3 or more feet (0.9 meters) above the water, the depth at the end of the board shall be at least 12 feet (3.7 meters) for a distance of 12 feet (3.7 meters) beyond the end of the board and in all cases the minimum depths shall extend 9 feet (2.7 meters) to each side of the board or platform.

8:26-5.12 Waterfront restrictions for bathing beaches

(a) Waterfront restrictions pertaining to swimming, boating, and safe limits for bathing beaches shall be posted and include the following:

1. No motorized vehicles except emergency and maintenance vehicles shall be permitted in the bathing area during its use.

2. No boating, water skiing, sailboating, windsurfing, scuba diving or surfboarding shall be permitted in the swimming and bathing area while in use.

3. Rope drops shall not be permitted except those licensed and inspected by the Department of Labor and Industry under N.J.S.A. 5:3-31 through 54.

SUBCHAPTER 6. GENERAL SANITATION AND MAINTENANCE

8:26-6.1 General provisions

(a) A swimming pool, hot tub, spa or bathing beach shall be maintained in a clean, sanitary, and safe condition. The health authority may require a recreational bathing place to correct or eliminate any specific condition not described in these regulations but which it deems necessary for proper sanitation, safety, or fire protection at a recreational bathing place.

(b) Adequate dressing and sanitary facilities shall be provided for all bathing facilities unless the facilities are provided in connection with the general development for other purposes and are of adequate capacity and number and in close proximity to the swimming pool, hot tub, or spa. Beaches in existence at the time of the promulgation of these rules are exempt from this requirement; however, newly constructed bathing beaches shall be in compliance with this requirement.

8:26-6.2 Dressing rooms and bathhouses

(a) Dressing rooms and bathhouses shall be in conformance with the regulations set forth in the New Jersey Uniform Construction Code, N.J.A.C. 5:23.

(b) Separate dressing and sanitary facilities shall be provided for each sex with no interconnection. Line of sight shall be broken at entrances and exits of dressing rooms. The rooms shall be well-lighted, drained, ventilated, and of good construction with impervious materials. These facilities shall be developed and planned so that good sanitation can be maintained throughout the building at all times.

(c) Floors shall have a slip-resisting surface that shall be relatively smooth to insure complete cleaning and ease in cleaning. Floor drains shall be provided, and floors shall be sloped not less than 1/4 inch per foot toward the drains to insure positive drainage.

(d) Walls and partitions of the dressing room area, screen partitions, shower, toilet, and dressing room booths shall be of durable material not subject to damage by water and shall be designed so that a waterway is provided between partitions and floor to permit thorough cleaning of the walls and floor areas with hoses and brooms.

8:26-6.3. Showers

(a) Showers shall be in conformance with the regulations set forth in the New Jersey Uniform Construction Code, N.J.A.C. 5:23.

(b) Shower stall floors located adjacent to walkways shall be depressed below the level of the walkways.

(c) Floor drains shall be provided in the shower rooms or stalls and shall be at least twice the cross sectional area of the outlet pipe.

(d) Wood slats or floor material and slopes conducive to slipping shall not be permitted.

8:26-6.4 Water closets and lavatories

(a) Water closets and lavatories shall be in conformance with the regulations set forth in the New Jersey Uniform Construction Code, N.J.A.C. 5:23.

(b) Water closets shall be enclosed with noncorrosive partitions. There shall be sufficient space between the floor and partitions to permit washing.

(c) Fixtures shall conform to the following requirements:

1. Toilet tissue holders, supplied with tissues shall be provided at each toilet.

2. Suitable receptacles shall be provided for paper towels and waste materials. Such receptacles in toilet rooms for women shall be covered.

3. Common towels shall not be permitted.

4. Soap dispensers for providing either liquid or powdered soap shall be provided at each lavatory. The dispenser must be of all metal or plastic type with no glass permitted in these units.

5. Safety glass or unbreakable mirrors shall be provided.

8:26-6.5 Wastewater disposal

(a) The system for wastewater disposal shall be adequate to serve the facility including bathhouse, locker room, and related accommodations.

(b) Sanitary sewage and filter backwash waters shall be disposed of without creating nuisances or sources of foulness.

(c) Over-flow water shall be returned to the filter system or discharged to a waste system.

(d) Backwash water shall be discharged into a waste water disposal system.

(e) All wastewaters shall be disposed of by one of the following approved methods.

1. Sanitary sewer: The discharge of any wastewater into a sanitary sewer shall have the approval of the appropriate sewer authority or the municipality that owns and/or operates the treatment system.

2. Natural waters: The discharge of any wastewater into the natural waters of the state shall not be allowed without a NJPDES permit issued by the State Department of Environmental Protection, Division of Water Resources, Bureau of Industrial Waste Management, CN 029, Trenton, New Jersey 08625.

3. Subsurface sewage disposal facilities: The location and construction of a subsurface sewage disposal system shall be in accordance with N.J.A.C. 7:9-2 (Standards for the Construction of Individual Subsurface Sewage Disposal Systems), the New Jersey Water Pollution Control Act Regulations (N.J.A.C. 7:14) and local laws, ordinances and regulations.

8:26-6.6 Solid waste disposal

(a) Solid waste shall be disposed of in accordance with the rules of the Solid Waste Administration (N.J.A.C. 7:26) promulgated by the Department of Environmental Protection, and any other applicable rules and regulations.

9605 28CNE 5144.

tubs and spas and 6 hours for processing for bathing beaches. The sample shall be refrigerated immediately upon collection or kept in an ice chest and held at 45 degrees Fahrenheit (7.2 degrees centigrade) or less while being transported. Information documenting the sampling time, date and location of sample, sampler's identification, and desired analysis shall accompany the sample.

8:26-7.6 Microbiological water quality standards for swimming pools and wading pools

(a) Heterotropic plate (standard plate count):

1. Standard: The number of colony forming units (CFU) shall not exceed 200 colonies per one milliliter.

i. Method: The heterotrophic plate count test shall be conducted in accordance with procedures set forth in Method 907, heterotrophic plate count, as set forth in "Standard Methods for the Examination of Water and Wastewater," American Public Health Association, 16th Edition. Said text may be obtained from the American Public Health Association, 1015-18th Street N.W. Washington, D.C. 20036.

(b) Total coliform densities:

1. Standard: If the multiple-tube fermentation method is used, none of the 5 standard 10 milliliter portions shall show the presence of organisms of the coliform group at any time. None of the confirmed 5 portions shall show the presence of the coliform group.

i. Method: Total coliform tests shall be conducted in accordance with procedures set forth in Method 908, a multiple-tube fermentation technique for members of the coliform group, as set forth in "Standard Methods for the Examination of Water and Wastewater," American Public Health Association, 16th Edition.

2. Standard: If the membrane filtration technique is used, the number of coliform organisms shall be less than 1 colony per 100 milliliter sample.

i. Method: Total coliform test shall be conducted in accordance with the procedures set forth in Method 909A, a membrane filter technique for members of the coliform group as set forth in "Standard Methods for the Examination of Water and Wastewater," American Public Health Association, 16th Edition.

8:26-7.7 Samples not meeting standards

(a) The certified laboratory having determined that a sample(s) does not meet the microbiological standards established in N.J.A.C 8:26-7.6, 7.12, 7.19, shall notify the swimming pool, hot tub, spa, or bathing beach operator by telephone on the same day and have the swimming pool, wading pool, hot tub, spa, or bathing beach, resampled. The verbal communication must be subsequently confirmed by a written report within 5 days.

(b) The swimming pool, wading pool, hot tub, spa, or bathing beach operator upon verbal notification of an unsatisfactory sample result shall notify the health authority immediately.

(c) The health authority or its authorized agent shall then require the swimming pool, wading pool, hot tub, spa, or bathing beach operator to have additional sample(s) taken and analyzed.

8:26-7.8 Chemical and physical water quality analyses for swimming pools and wading pools

(a) The pool shall be monitored for disinfectant level and pH at a 2 hour frequency throughout operating hours and in conjunction with each microbial slip and become part of the permanent microbial test record.

(b) When testing for free chlorine, combined chlorine, and pH, the following test methodologies shall be used:

1. Free and combined chlorine residual: Method 408D, DPD ferrous titrimetric method or Method 408E, DPD colorimetric (using a color comparator), as set forth in "Standard Methods for the Examination of Water and Wastewater," American Public Health Association, 16th Edition.

(c) When testing for pH, Method 423, electrometric, as set forth in "Standard Methods for the Examination of Water and Wastewater," or phenol red indicator shall be used.

(d) If color comparators are used for measuring disinfectant residuals or pH using the methods specified above, they shall be available at the pool during periods of pool use for inspections.

(e) A bound log shall be maintained by the swimming pool operator on the premises which shall contain the time and date of the chemical tests performed, results of those tests and initials of the person who performed the necessary testing. The log shall also contain such information as bather load, water clarity, water temperature, and weather conditions as applicable. This log shall be available at all times for review by the health authority.

8:26-7.9 Chemical water quality standards for swimming pools and wading pools

(a) Free chlorine, combined chlorine, bromine and pH values shall be continuously maintained within the following ranges:

	Minimum	Ideal	Maximum Indoor Pools	Maximum Outdoor Pools
Free chlorine residual parts per million (ppm)	1.0	1.0-1.5	3.0	4.0
Combined chlorine (ppm)	None	None	0.2*	0.2*
Bromine (ppm)	2.0	2.0-4.0	4.0	4.0
pH	7.2	7.4-7.6	7.8	7.8

*Remedial action shall be taken if combined chlorine exceeds 0.2 as it will result in reduced chlorine efficacy.

(b) If pool water disinfectants other than those in (a) above are used, residuals of equivalent disinfecting strength shall be maintained.

(c) If stabilized chlorines are used as pool water disinfectants, the cyanuric acid levels shall be maintained within the following ranges:

	Minimum	Ideal	Maximum
Cyanuric Acid (ppm)	10	30-50	100

1. Stabilized chlorines shall be prohibited in indoor pools.

8:26-7.10 Physical water quality standards for swimming pools and wading pools

(a) The pool operator shall monitor the water clarity of each pool daily.

(b) When in use, the pool water shall be sufficiently clear to permit a black disk 6 inches (15.2 centimeters) in diameter, superimposed upon a white field placed at the bottom of the deepest end of the pool to be clearly visible from the pool sidewalk, at all distances up to 10 yards, measured in a horizontal distance from the projection of the disk onto the pool surface.

960528CNE5144

(b) One sample shall be taken for the first 300 linear feet of beach front. Oceans under the cooperative coastal monitoring program are not included.

1. Additional samples shall be required as follows:

i. 300 linear feet to 500 linear feet - - - 2 samples.

ii. In excess of 500 linear feet - - - 3 samples.

8:26-7.18 Technique of sampling

(a) Technique of sampling shall be as specified in N.J.A.C. 8:26-7.4(d) and also include the following, in the case of natural bathing waters:

1. Water samples shall be taken in an area with a stabilized water depth between the sampler's lower thighs and chest with an optimum depth being at the sampler's waist.

2. At the desired depth facing away from the shoreline and in an area of the bathing zone not in close proximity to bathers, sample container shall be placed, with lid or stopper still attached, approximately eight to 12 inches below the water surface. With arms extended in front, the container shall be held near its base and downward at a 45 degree angle, the cap removed and the container filled in one slow sweeping motion (downward or horizontally, not upward) with the mouth of the container ahead of the sampler's hand and the container recapped while it is still submerged. The cap shall remain submerged during the sample collection and care shall be taken not to touch the inner surfaces of the cap. The only exception to this procedure would be in the event that samples need to be taken during cold water conditions that require the use of reach assist poles to obtain the samples. In this situation, the cap may be removed prior to submersion as long as the container is pointed downward upon entry into the water. If a head space in the container is needed, the sampler, once on the beach, can carefully pour out a small amount of the sample and recap.

(b) No sampling shall be performed when such oceanographic or meterological conditions exist that present an imminent health and safety hazard.

8:26-7.19 Microbiological water quality standards for bathing beaches

(a) Microbiological water quality standards for bathing beaches shall be determined on the basis of fecal coliform densities, sanitary survey results, and/or epidemiological evidence.

(b) Fecal coliform count standards shall be as follows:

1. If the multiple-tube fermentation method is used, the arithmetic average of a set of samples at any particular time shall not exceed 200 fecal coliform per 100 milliliters.

2. If the membrane filtration method is used, the number of colony forming units shall not exceed 200 fecal coliform organisms per 100 milliliters.

(c) The following methods shall be used in accordance with procedures set forth in, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association, 16th Edition.

1. 909C Fecal Coliform Membrane Filter Procedure.

2. 908C-1 Fecal Coliform MPN Procedure (E.C. medium)

3. 908C-2 Fecal Coliform MPN Procedure (A-1 medium).

(d) All analyses shall be conducted in accordance with the standards set forth in N.J.A.C. 7:18 and in accordance with the methodologies set forth in N.J.A.C.

8:26-7.20 Chemical water quality standards for natural waters

(a) Chemical water quality standards for natural waters shall be monitored by the bathing beach operator and judged on the following basis:

1. Chemicals used to control aquatic vegetation shall not be capable of creating toxic reactions, or skin or membrane irritations to bathers when the bathing place is in operation and shall be applied in accordance with N.J.A.C. 8:26-6.11(a).

8:26-7.21 Physical water quality standards for natural waters

(a) Physical water quality standards for natural waters shall be monitored by the bathing beach operator and judged on the following basis:

1. Visual observations and/or physical determinations shall be made to demonstrate the water to be free of deposits; aquatic vegetation, growths, oils, greases, or other substances having the potential to cause a health or safety hazard.

SUBCHAPTER 8. ENFORCEMENT PROCEDURES

8:26-8.1 Legal authority

All public swimming pools, ~~wading pools~~, hot tubs, spas, or bathing beaches shall be operated in compliance with the provisions of this Chapter and Title 26, Revised Statutes of New Jersey.

8:26-8.2 Inspection of public swimming pools, hot tubs, spas or bathing beaches

(a) The health authority shall inspect every swimming pool, wading pool, hot tub, spa, or bathing beach as often as the health authority deems necessary.

(b) The person operating a swimming pool, wading pool, hot tub, spa, or bathing beach shall permit access to all parts of the establishment.

8:26-8.3 Report of inspections

(a) Whenever an inspection of a swimming pool, hot tub, spa, or bathing beach is made, the finding(s) shall be recorded on an inspection report form approved by the State Department of Health.

(b) The inspection report form shall identify in a narrative form any violations of this Chapter and shall be cross referenced to the section of the Chapter being violated.

(c) The health authority, upon anticipating a closure of a bathing beach shall immediately notify via telephonic communication the State Department of Environmental Protection, State Department of Health, and adjacent local health authorities of the intended action.

8:26-8.4 Public availability of inspection records

Records of inspections of swimming pools, hot tubs, spas, or bathing beaches shall be made available to the public upon request.

8:26-8.5 Criteria for closure of public recreational bathing facilities

(a) The approval, license or permit of any person to operate a swimming pool, hot tub, spa or bathing beach may be suspended at any time, when in the opinion of the health authority or its authorized agent, such action is necessary to abate a present or threatened menace to public health.

(b) The health authority shall order the owner or operator of a swimming pool, hot tub, spa, or bathing beach to physically sequester the bathing area and to prohibit any bathing until the violation is abated.

960528LNE5144

APPENDIX

The following organizations are currently recognized by the New Jersey State Department of Health to certify the personnel and/or program required in Subchapter 5 of these regulations.

First Aid Certification

American Red Cross

CPR Certification

American Red Cross
American Heart Association

Lifesaving/Lifeguarding Certification

Swimming Pools and Lake Bathing

American Red Cross	-	Advanced lifesaving certificate Lifeguarding certificate
Boy Scouts of America	-	BSA lifeguard certificate
YMCA	-	Advanced lifesaving certificate Lifeguarding certificate
National Pool and Waterpark Lifeguard Training	-	Pool guard certificate Deep water guard certificate

Ocean and Tidal Waters
United States Lifesaving Association
Office of Certification
Mid-Atlantic Region
P.O. Box 1
Avon, NJ 07717

Certified Pool Operators Certification

YMCA

National Swimming Pool Foundation
10803 Gulfdale
Suite 300
San Antonio, Texas 78216

24 UNIT FIRST AID KIT CONTENTS

2 Units	-	1 inch Adhesive Compress
2 Units	-	2 inch Bandage Compress
2 Units	-	3 inch Bandage Compress
2 Units	-	4 inch Bandage Compress
1 Unit	-	3 inches by 3 inches Plain Gauze Pads
2 Units	-	Gauze Roller Bandage
1 Unit	-	Eye Dressing Packet
4 Units	-	Plain Absorbent Gauze - 1/2 square yard
3 Units	-	Plain Absorbent Gauze
4 Units	-	Triangular Bandages
1 Unit	-	Adhesive Tape - Scissors - Tweezers

960528CNE5144

25 JUN 1996

RT. Side View 13-96-560

96-6572 5/25/96

LEFT SIDE 13-96-560

96-6572 5/25/96

960528-CNE 5144

Office of the Medical Examiner

County of Monmouth

25 JUN 1996

STANLEY M. BECKER, M.D.
FCAP, FASCP
CHIEF MEDICAL EXAMINER
JAY A. PEACOCK, M.D. FCAP
FIRST ASSISTANT MEDICAL EXAMINER
SOGRA R. SALEEM, M.D.
ASSISTANT MEDICAL EXAMINER
KARABI SINHA, M.D.
ASSISTANT MEDICAL EXAMINER

CENTRASTATE MEDICAL CENTER
WEST MAIN STREET
FREEHOLD, N.J. 07728
(908) 577-8790

HOUSHANG HAKIM, M.D.
DEPUTY MEDICAL EXAMINER
JOHN MALTA, M.D.
DEPUTY MEDICAL EXAMINER
JOSEPH SCHAUER, M.D.
DEPUTY MEDICAL EXAMINER

ME#13/96/0560

NAME: [redacted]

AGE: 16-BF

DIED: 5/25/96-PRONOUNCED BY DR. CRAIG AT JERSEY SHORE MEDICAL CENTER AT 11:52PM.

POSTMORTEM: 5/26/96-PERFORMED BY DR. SINHA AT CENTRASTATE MEDICAL CENTER AT 11:00AM.

MANNER OF DEATH: ACCIDENT

EXTERNAL EXAMINATION: The body is that of a 16 year old black female measuring 66" in length and weighs 191lbs appearing normally developed with a large build.

IDENTIFICATION: The body has been identified by the hospital ID tag.

SIGNIFICANT IDENTIFYING MARKS ON THE BODY: A non specific remote scar is present at the anterior aspect of the left knee. There is no other specific identifying features noted on the body.

EVIDENCE OF RECENT TREATMENT MARKS: Endotracheal tube, NG tube, multiple intravascular lines (left supraclavicular area, left lateral neck, right anterior wrists and right femoral area), a few needle puncture marks and a urinary catheter are present on the body.

CLOTHING: The body is nude and wrapped in a hospital bed sheet. No clothing has been received separately.

EVIDENCE OF TRAUMATIC INJURY: External examination of the body reveals patterned injuries symmetrically distributed at the buttocks extending down to the posterior aspects of both thighs. These injuries are characterized by diffuse skin contusions with wide bands of abrasion which are oriented horizontally, obliquely and vertically. The skin color of this large involved area reveals bluish purple discoloration extending at the inner aspects of the buttocks and vulva without involving the anus or genital organs. A wide zone of abrasion is noted focally at the left superior aspect of the buttock.

960528CNE 5144

The pelvic bones are stable and no palpable fracture is appreciated during internal examination. Also, no intra-abdominal or pelvic injuries are noted during internal examination.

GENERAL DESCRIPTION: Significant findings on external examination are: #1 Evidence of pattern injuries of the buttocks extending up to the mid portion of both posterior thighs. #2 Generalized skin pallor with mild edema. #3 Thoraco-abdominal surgical incision mark as evidence of organ procurement.

The head does not reveal any deformity. The scalp is lined by a dense layer of light brown dyed curly hair. The face does not reveal any injury. The eyes reveal pale clear conjunctivae, non-icteric sclarae, 6mm symmetrical dilated pupils and dark brown irides. The ear canals, nostrils and oral cavity are unremarkable. The neck, chest, abdomen, back and upper extremities are unremarkable except treatment marks and surgical incision for organ procurement. The anterior aspects of the lower extremities do not reveal any injuries or deformity. The genitalia reveal extension of the buttock injuries at the vulva area. The skin appears pale, smooth and edematous at the dependent area. Postmortem rigidity is fully developed and dependent lividity is distributed posteriorly.

INTERNAL EXAMINATION: The body cavities including the neck are examined. Significant findings on internal examination are: #1 Cerebral edema (1600gm brain weight). #2 Pulmonary congestion with non-aerated rubbery parenchyma of both lower lobes. #3 Status post organ harvest (both kidneys, segment of the abdominal aorta, heart, spleen and some of the lymph nodes).

HEAD AND CENTRAL NERVOUS SYSTEM: The scalp, subgaleum and cranial bones are free of any injury. The intercranial blood vessels are unremarkable. The brain is heavy and weighs 1600gm showing symmetrical configuration with widening of the gyri and compressed sulci. The brain appears dry with glistening lepto-meninges. The base of the brain reveals prominent cerebellar grooving with tonsilar herniation and softening of the pontomedullary parenchyma. Sectioning of the brain reveals diffusely congested parenchyma and compressed ventricles containing clear CSF. Otherwise, no other abnormality is grossly detected.

NECK: No abnormality is detected.

CHEST: Hemorrhagic fluid is present moderately inside both pleural cavities.

RESPIRATORY SYSTEM: The upper respiratory tract is unremarkable. Both lungs are moderately heavy weighing 470gm on the right side and 490gm on the left side. Each one reveals non-aerated rubbery diffusely congested lower lobes and pinkish spongy aerated upper lobes with areas of intraparenchymal hemorrhage. The tracheo-bronchial tree and pulmonary vasculature are patent throughout and unremarkable. No pneumonia is grossly detected. The pleurae are thin and glistening and unremarkable.

CARDIO-VASCULAR SYSTEM: The heart is surgically absent as a part of organ procurement. The thoracic and remaining segment of the abdominal aorta are unremarkable.

ABDOMEN: The abdominal cavity contains approximately 400ml of hemorrhagic fluid secondary to the organ procurement procedure. Both kidneys, spleen and mid segment of the abdominal aorta are surgically absent.

960528CNE. 5144

GASTRO-INTESTINAL TRACT: The entire gastro-intestinal tract reveal moderately pale mucosae without any traumatic injury. The appendix is identified. The stomach contains approximately 50ml of brown mucoid fluid without intact pills or food particles. The rectum and anus are free of traumatic injury.

HEPATO-BILIARY SYSTEM: The liver weighs 1070gm showing normal configuration with pale tan flat smooth parenchyma. The gallbladder is unremarkable. The pancreas reveals normal configuration weighing 90.0gm with pale homogeneous parenchyma.

GENITO-URINARY SYSTEM: Both kidney's including ureters are surgically absent. The urinary bladder is empty showing focal mucosal hemorrhage at the trigon area consistent with catheter in place. The uterus, fallopian tubes and ovaries are identified with a combined weight of approximately 100gm. The uterus reveals diffusely hemorrhagic thick endometrium with no gestational sac. The fallopian tubes and ovaries are unremarkable. The vagina does not reveal any mucosal injury. The inferior aspects of both labia majora including adjacent vulva and inner aspects of both buttocks reveal bluish purple discoloration of the skin.

LYMPHORETICULAR SYSTEM: The thymic pad of fat shows mild hemorrhage and edema consistent with organ procurement. The spleen is surgically absent as a result of organ procurement. A few of the intraabdominal lymph nodes are palpable showing reactive cut surface.

ENDOCRINE SYSTEM: The thyroid gland is normal in size and configuration showing pale yellowish brown homogeneous parenchyma. Both adrenals are surgically absent as a part of organ procurement.

MUSCULO-SKELETAL SYSTEM: No abnormality is grossly detected.

TOXICOLOGY: Representative specimen of blood (pre-hospitalization and postmortem), urine collected during the organ procurement, brain tissue, bile and entire gastric content are submitted for toxicology.

AUTOPSY WITNESS: Lt. Jennings and Det. Connelan from Wall Township PD were present during the postmortem examination.

FINDINGS:

1. DROWNING IN FRESH WATER.
2. DIFFUSE ECCHYMOSIS WITH SCATTERED SYMMETRICAL ABRASIONS OF BOTH BUTTOCKS EXTENDING TO THE INNER ASPECTS OF BOTH BUTTOCKS AND ADJACENT VULVA.
3. CEREBRAL EDEMA WITH TONSILAR HERNIATION.
4. PULMONARY CONGESTION, BILATERAL, BOTH LOWER LOBES.
5. STATUS POST ORGAN PROCUREMENT (HEART, SEGMENT OF ABDOMINAL AORTA, KIDNEYS, ADRENALS AND SPLEEN).
6. DIFFUSE PALLOR AND EDEMA.

960 528 CNE 5144

CAUSE OF DEATH: DROWNING.

MANNER OF DEATH: ACCIDENT.

KARABI SINHA, M.D.
ASSISTANT MEDICAL EXAMINER
MONMOUTH COUNTY

KS/NMB
5/29/96

CC: STATE MEDICAL EXAMINER
COUNTY PROSECUTOR'S OFFICE

960 528 CNE 5144

STATE OF NEW JERSEY
STATE MEDICAL EXAMINER OFFICE
EDWIN H. ALBANO INSTITUTE OF FORENSIC SCIENCE
325 Norfolk Street
Newark, New Jersey 07103

201-648-7259 Pathology
201-648-3915 Toxicology

TOXICOLOGY REPORT

Lab No: 96-1720

Received: 6-4-96 1141 fi

Name: [redacted]
Age: 16 Sex: F Race: B

COYRSEQNO: 13-96-0560/NA
Posted by: SINHA

Specimens submitted: Blood, urine, bile, brain, stomach-content, premortem-blood.

Analysis requested : Alcohols, screen.

RESULTS: Report Date: 4:02 PM THU., 6 JUNE, 1996

BLOOD:

Not Detected -
Volatiles: Acetone,Ethanol,Isopropanol,Methanol.

URINE:

Not Detected -
Drugs and other compounds: Amphetamine,Barbiturates,Benzodiazepines,Cannabinoids,Cocaine metabolites, Methadone,Methamphetamine,Opiates,Phencyclidine (PCP),Phenytoin,Propoxyphene,TCAntidepressants.

PREMORTEM-BLOOD:

Not Detected -
Volatiles: Acetone,Ethanol,Isopropanol,Methanol.

Reng-lang Lin

Reng-lang Lin, Ph.D.,
CHIEF TOXICOLOGIST

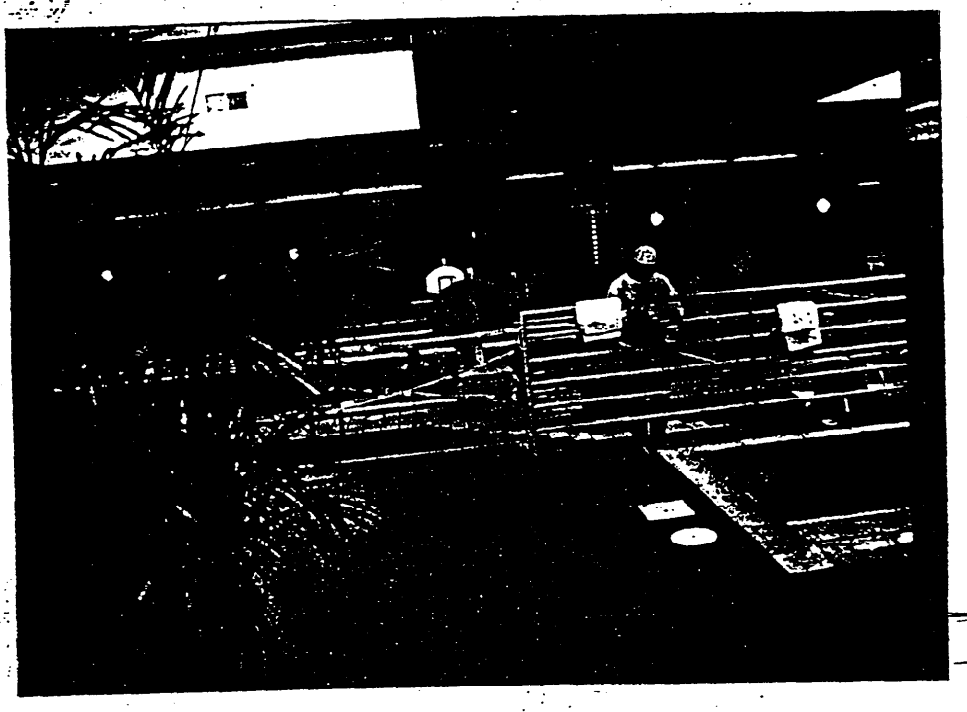
/jr
96-1720

Sinha
6-10-96

RECEIVED
JUN 10 1996

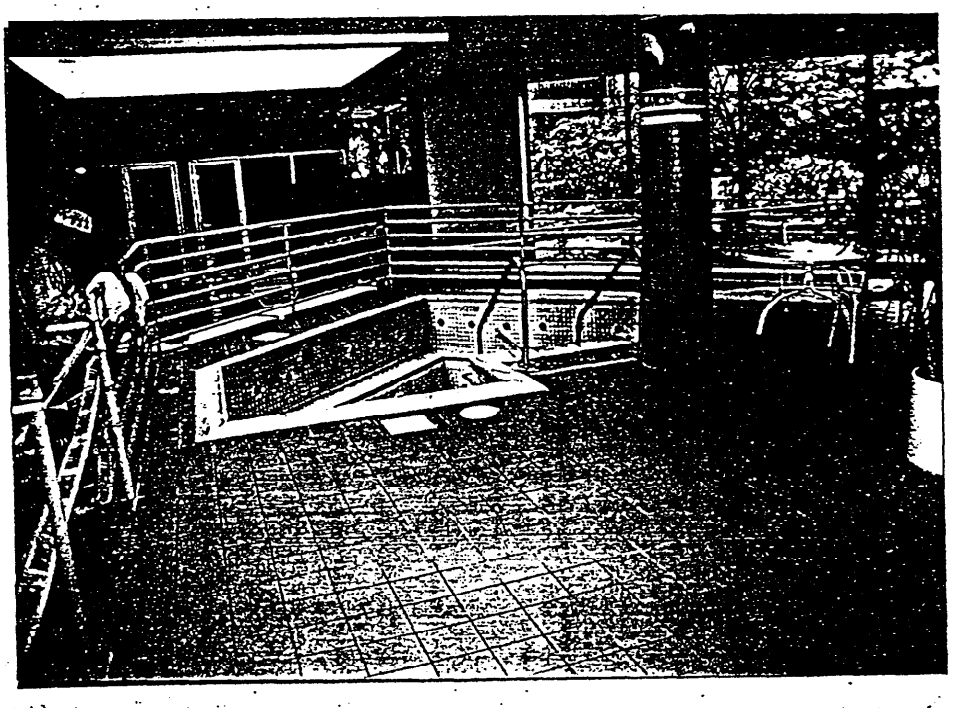
960528CNE5144

5 JUN 1996



(1)

Hot tub at right in The Atlantic Club, Wall, N. J. Note it is situated in a tiled elevated area directly off the main swimming pool in background. Two steps lead up to this area from pool area next to individual shown standing here.. Hot tub area is enclosed within a metal railing shown.



(2)

Another view showing hot tub. Note steps next to column. Hot tub was custom designed and constructed in 1989. Reportedly The Atlantic Club has another hot tub in another building but of different design. Immediately behind the photographer is the wall mounted ON switch which will activate the hydrotherapy pumps. It is about 25' from hot tub. The OFF switch is located in the basement directly below hot tub.

EXHIBITS T1/2

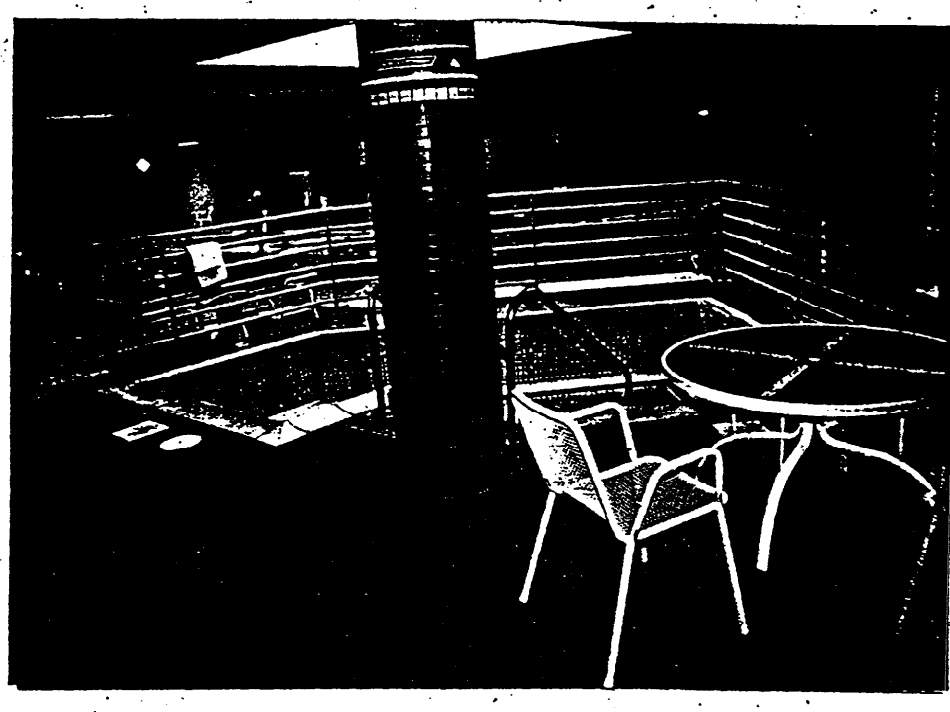
(3)

Victim was seated on the seating ledge in front of skimmer at right. Reportedly at about the time the victim placed her head beneath the water to "get her hair wet", someone activated the wall mounted pump switch in background about 25' distance. Victim apparently slipped off edge of ledge seat onto bottom of hot tub and landed with her buttock completedly covering drain. Note that to turn the pumps off required going around swimming pool in background, through an office, through two weight rooms and down the steps into the basement pump room beneath hot tub.

(4)

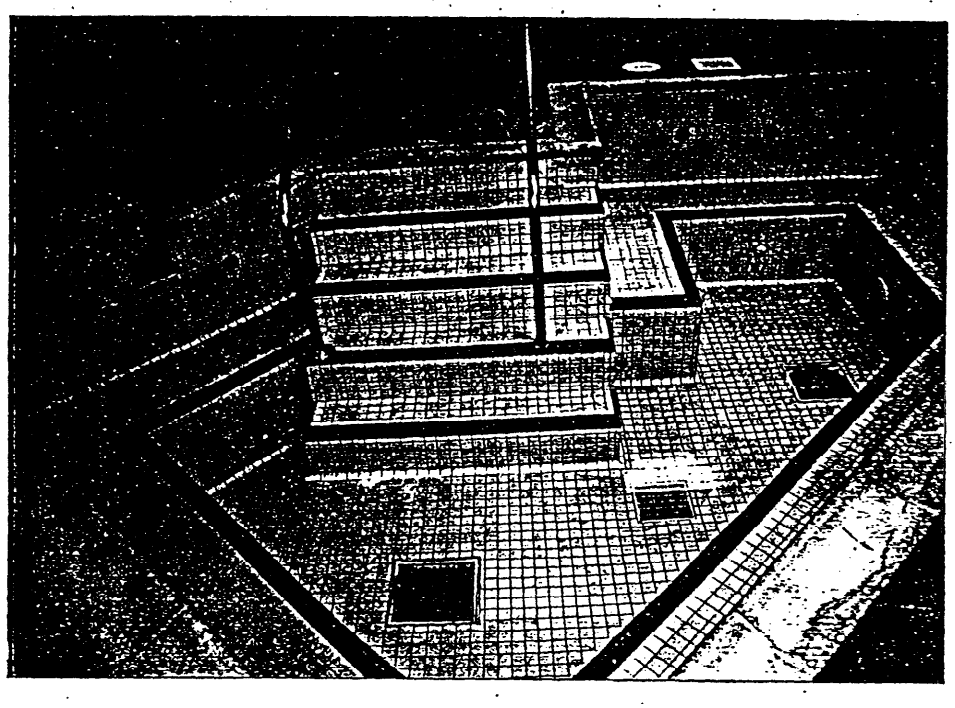
Wall mounted pump switch. A timer on the switch would operate the pumps for about 10 minutes before they automatically shut off. This is NOT a

960528CNE5144



5

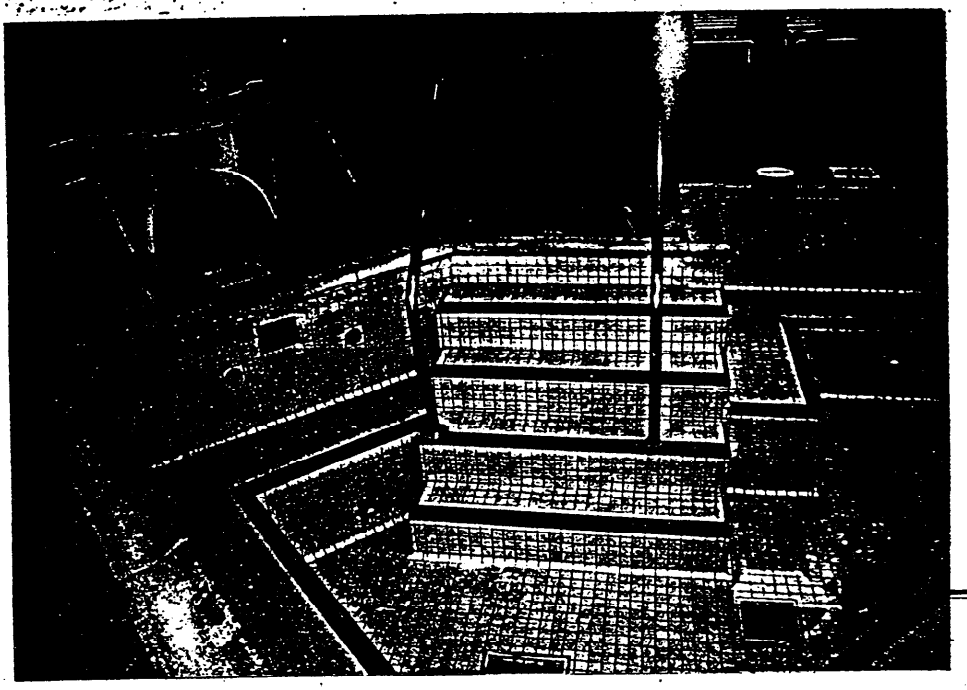
Another view of hot tub with swimming pool and changing areas behind.



6

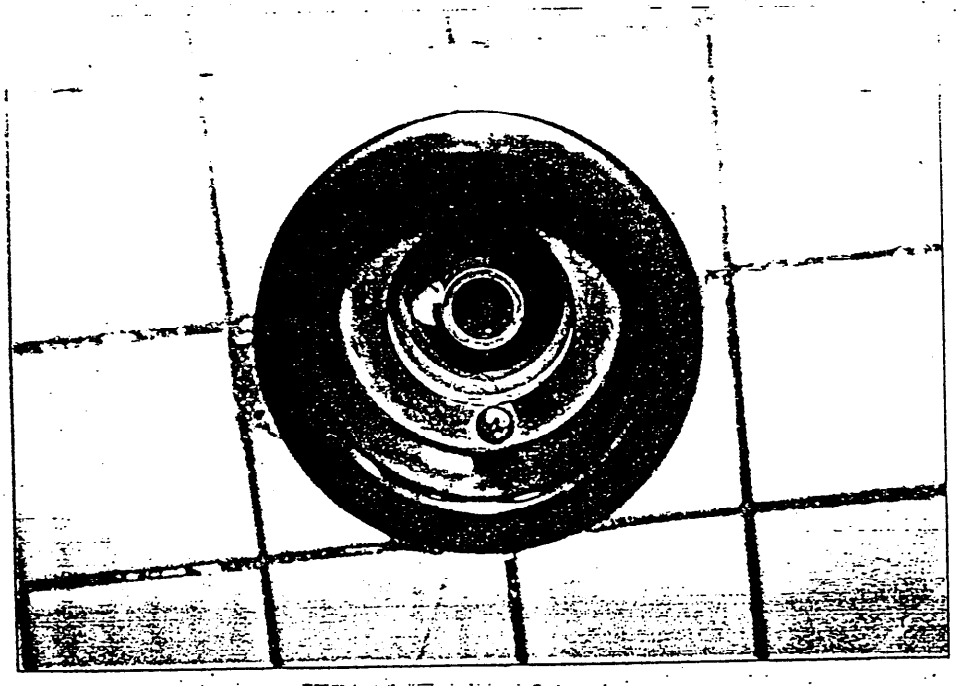
Configuration of hot tub. Note steps leading down into hot tub and location of 3 drains. The middle is the main drain which recycles the water through the filters, The other two drains are hydrotherapy recycling water to the jets on the sides of the hot tub. They do not filter the water.

EXHIBITS I 5/6



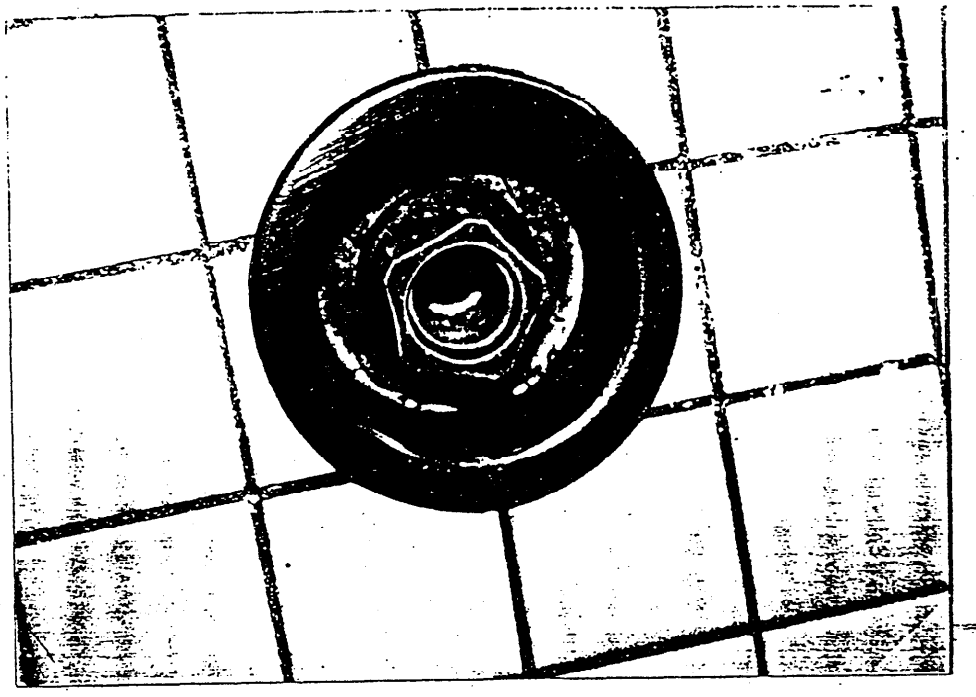
7

Another view looking inside hot tub. Note 2 of the four rectangular skimmers on the wall sides. The skimmers are connected to the center main drain and act as a bypass in the event the main drain is blocked. Just below the skimmer are some of the 21 jets in the hot tub. Near the floor are the returns from the main drain.



8

Jets connected to the two hydrotherapy pumps. Reportedly about half of the 21 jets are connected to one pump and the remainder tothe other pump.



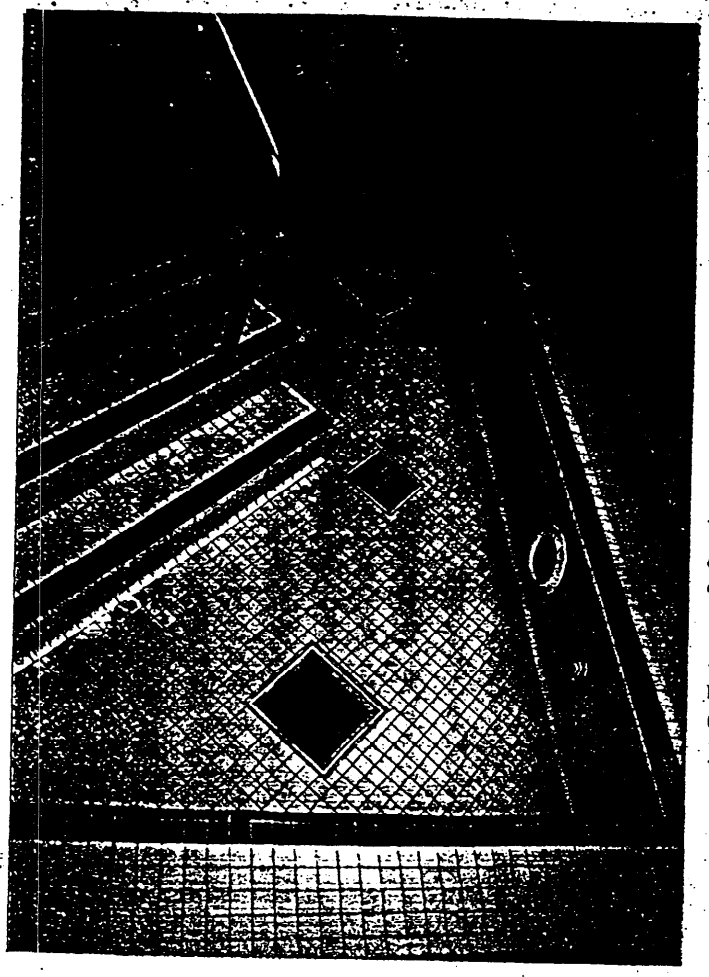
9

Returns from the main pump. Water entering through these returns has been filtered, oxygenated and treated with bromine.

10

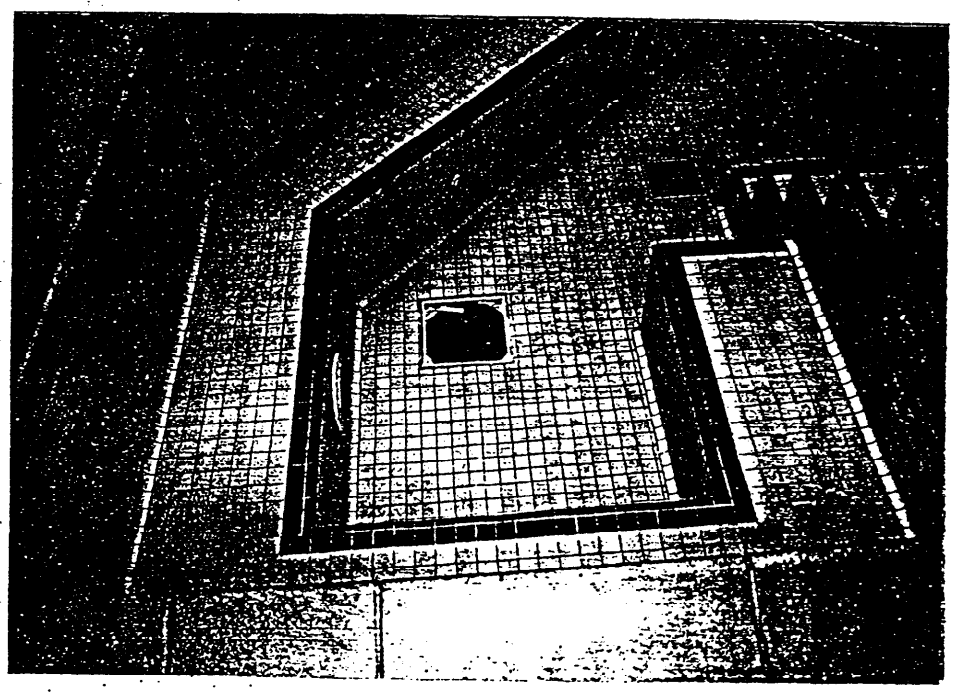
Another view of steps with main drain grate shown at immediate right. Note that a seating ledge runs on the entire interior wall of the hot tub.

EXHIBITS I 9/10



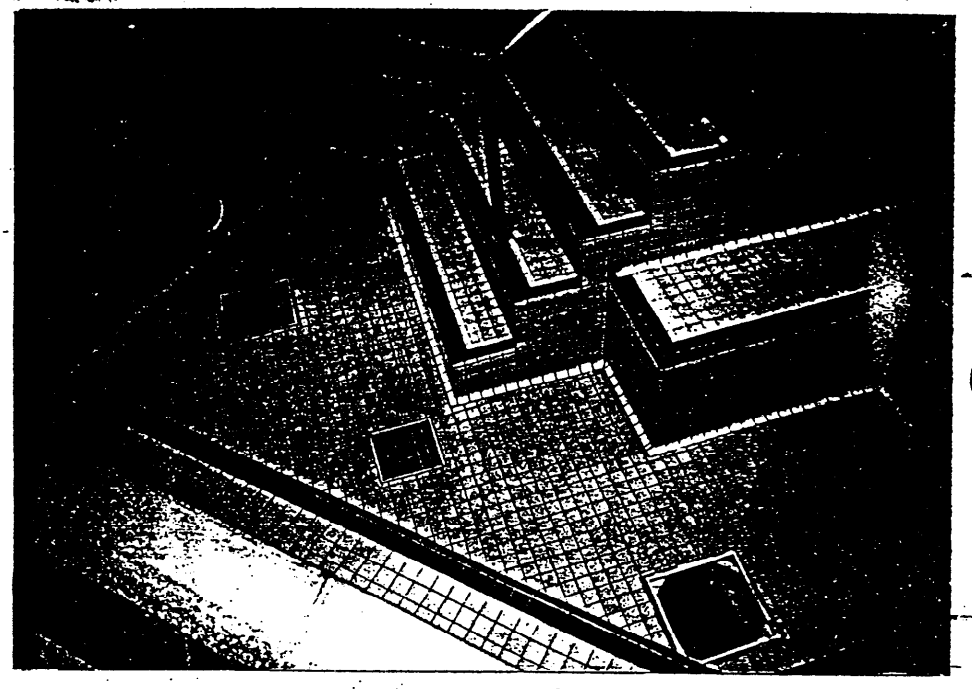
11

View showing the 3 drains. The incident occurred at the drain in the distance. That drain and the closest drain are identical in size measuring approximately 12" square. The main drain in the center measures approximately 9 1/2" square. Circular objects on hot tub walls are lights.



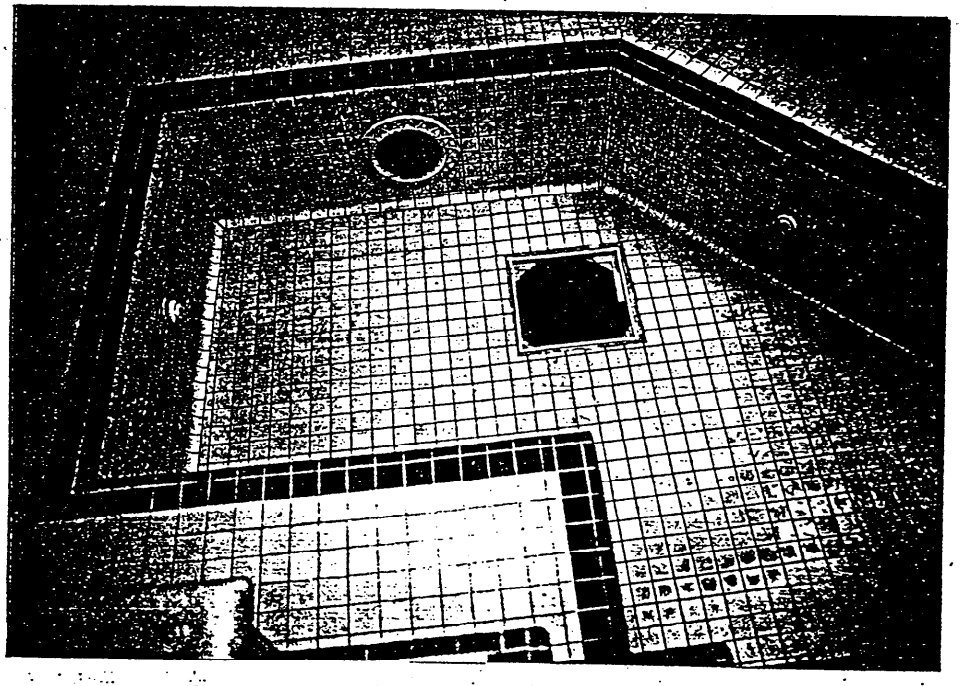
12

Victim was sitting on the tiled ledge shown below. When she placed her head under water she apparently slipped off edge of the ledge and landed on the bottom of the hot tub with her buttocks on top of the 12" square hydrotherapy drain shown. At the time there was about 3' of water in hot tub near sculptured molding and victim's head was beneath water.



13

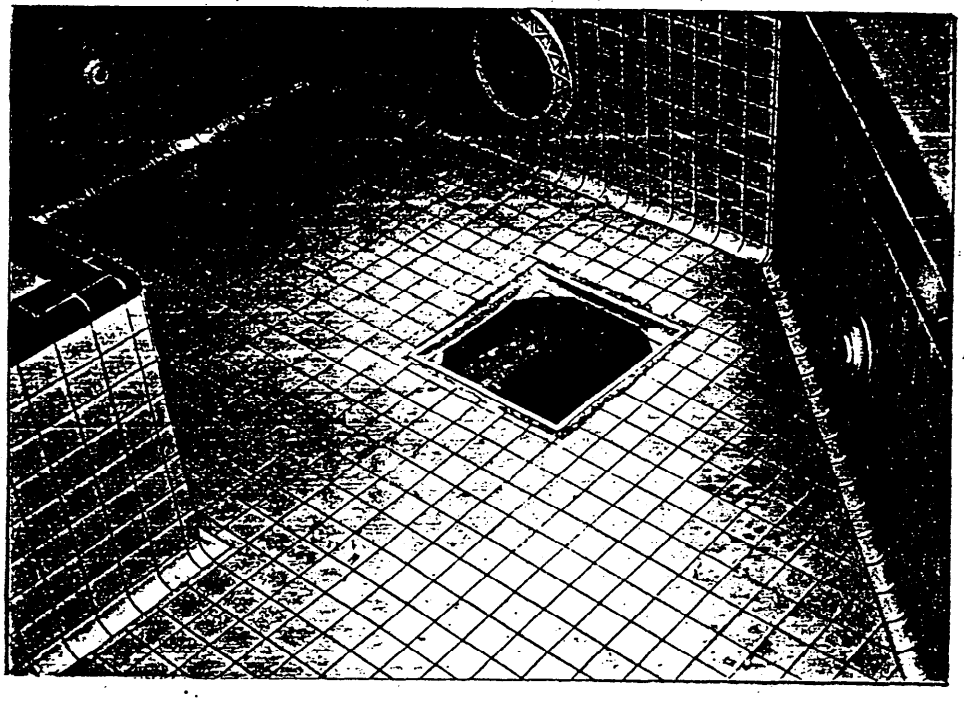
Involved drain is at right in this photograph. Note that the grates have been removed by police as evidence.



14

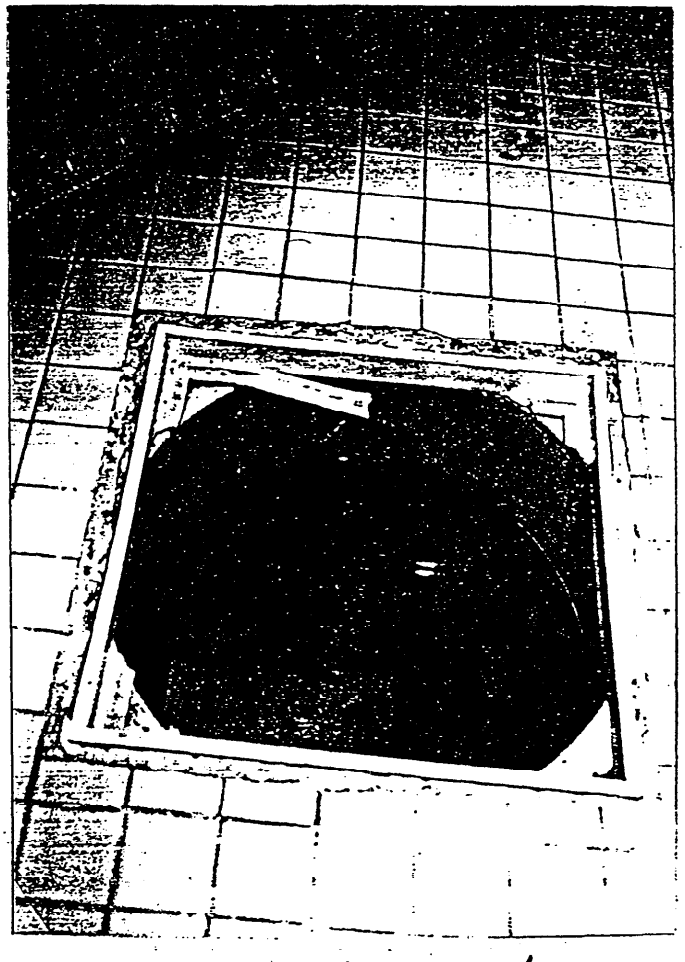
Closer view of involved drain minus grate. Each tile measures approx. 2" square. Victim was seated on ledge at left about 30" from drain. When she apparently slipped off the edge of the ledge she landed on the hot tub floor with her buttocks completely covering the drain shown. Ledge is approx. 18" from floor. Wall behind ledge is another 24" to top of sculptured coping.

EXHIBITS I13/14



15

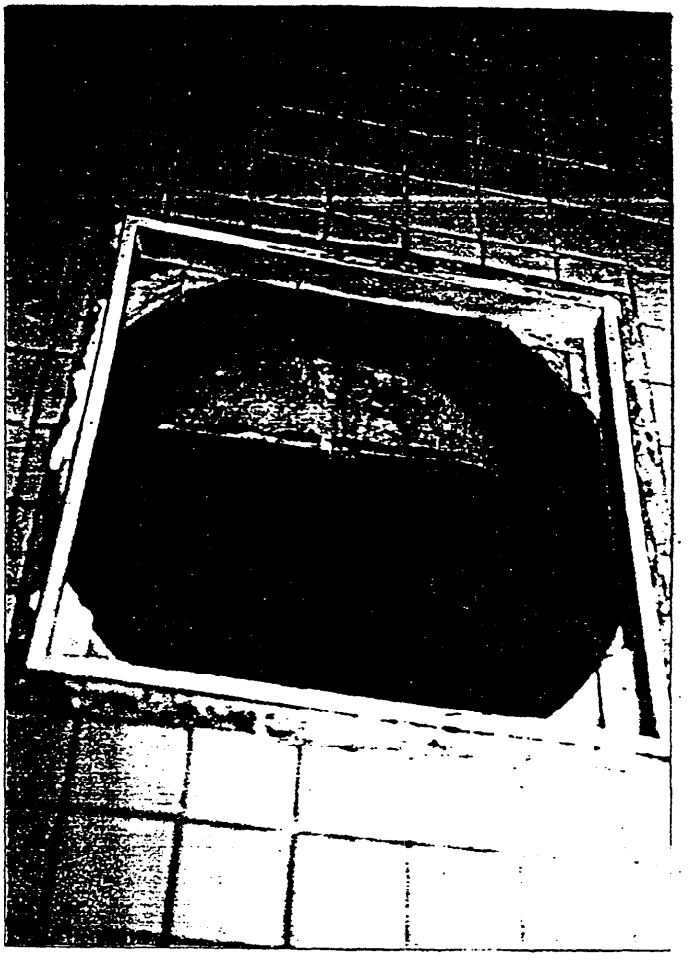
Another view of drain showing sump beneath.



16

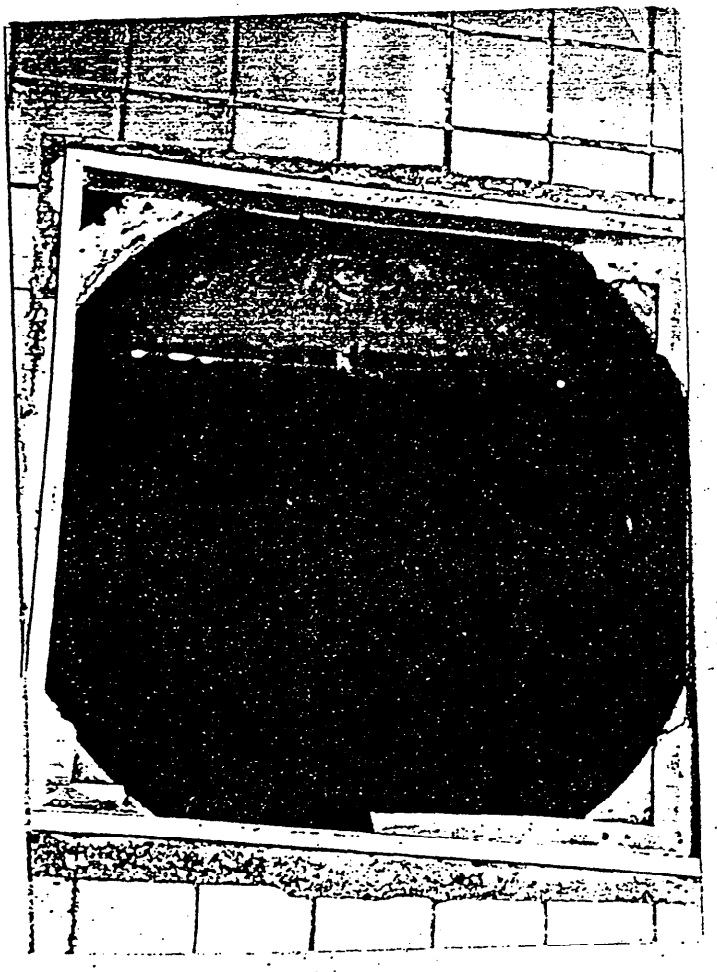
Closeup of drain and sump. The grate frame remains largely intact where it was supported at the corners by the curved sump. The grate is of ABS plastic and measures approx. 11 3/4" x 11 3/4" to fit inside the frame. It apparently broke into four pieces when the victim landed on top of it or shortly thereafter.

EXHIBITS T15/16



(17)

View shows the approx. 6" diameter hole on side of sump onto which is connected the 6" diameter PVC pipe leading directly to the 10 hp. pump. Sump is 14 1/2" deep and shape resembles that of 5 gallon bucket.



(18)

Bottom of sump has 2 1/2" diameter cleanout plug. Plug was reportedly in place at time of incident.

EXHIBITS 7 17/18

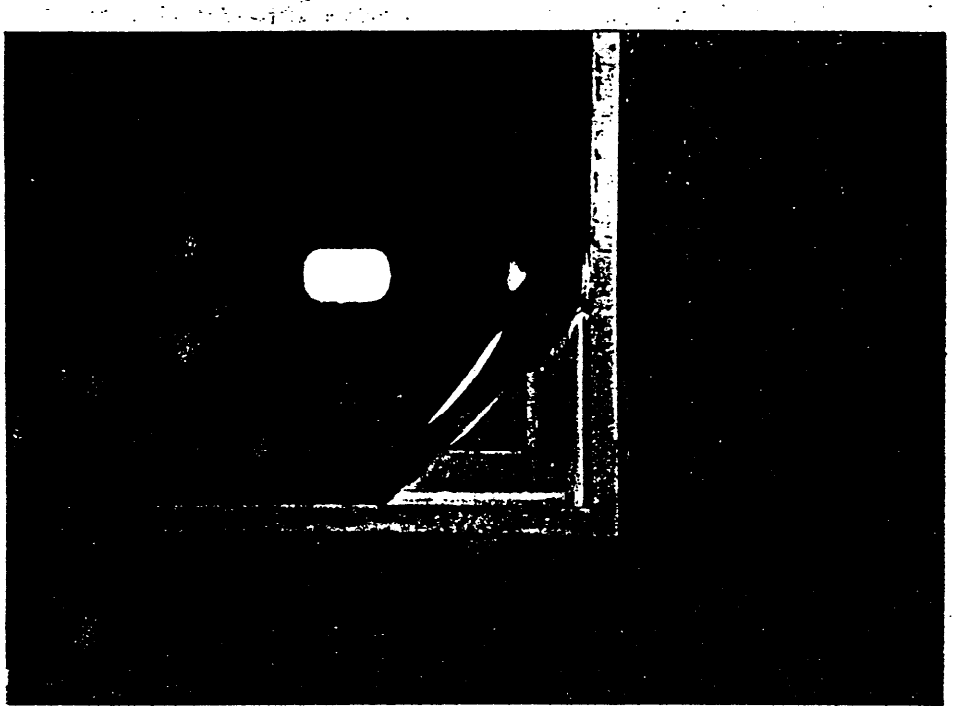
19

View of corner of grate frame. Police report no screws held grate to frame.

20

Another corner of grate frame.

EXHIBITS I 19/20

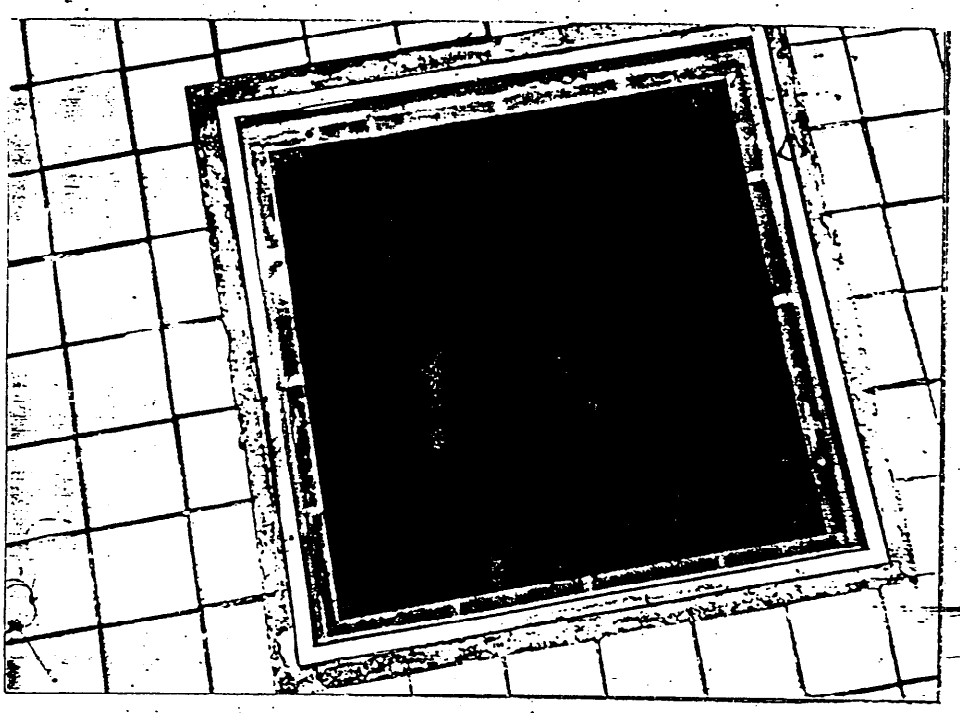


21

Third corner of grate frame to shown remaining material.

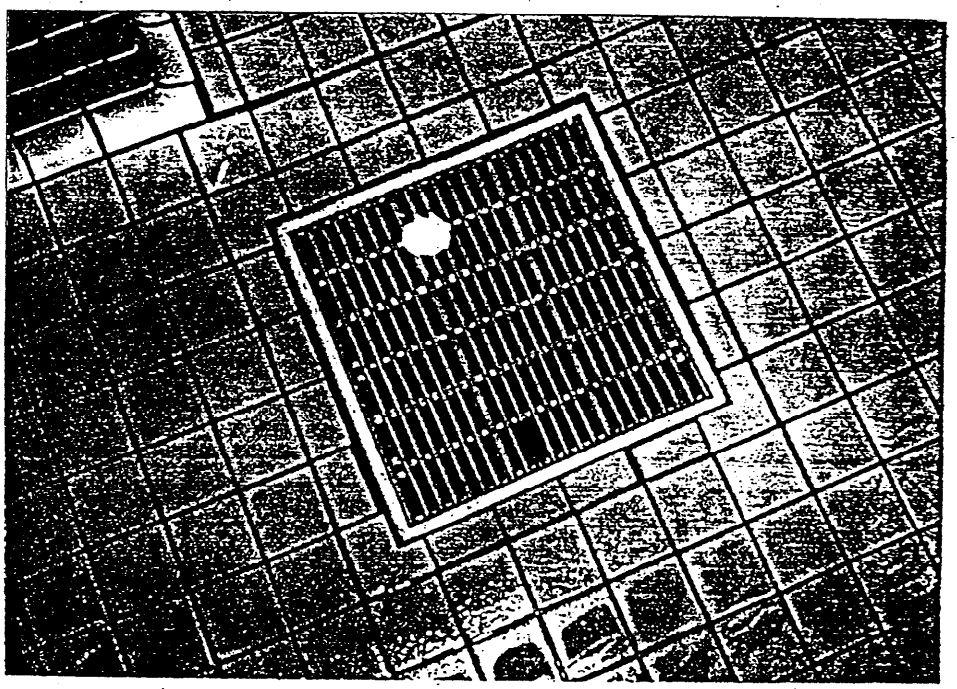
22

Fourth corner of grate frame. This was the only corner of grate frame without material remaining.



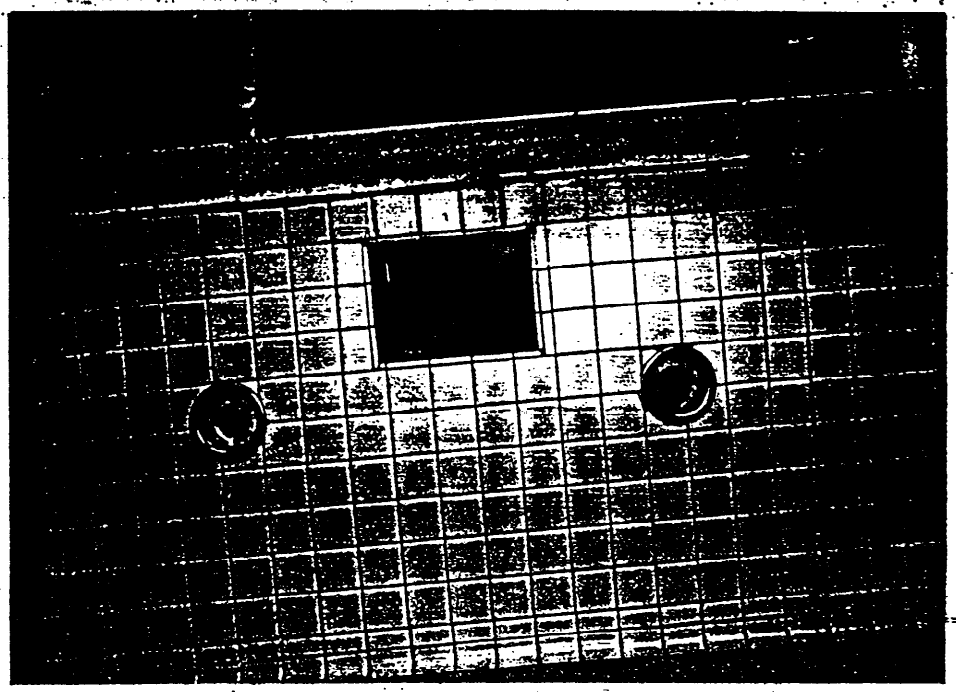
23

The intact drain frame not involved in this incident shown here. It has the same dimensions as the involved grate frame. Note screw holes in frame but police could find no screws securing drain cover to frame. The bromine appears to stain the ABS plastic a brown color.



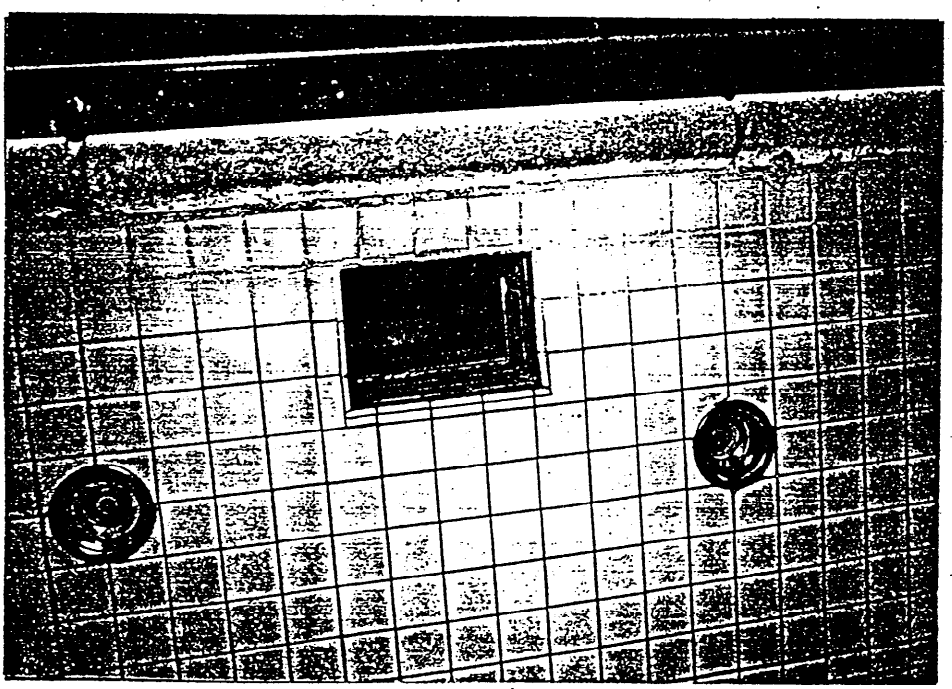
24

Center main drain measures 9 1/2" square. No screws were observed to secure it to frame.



25

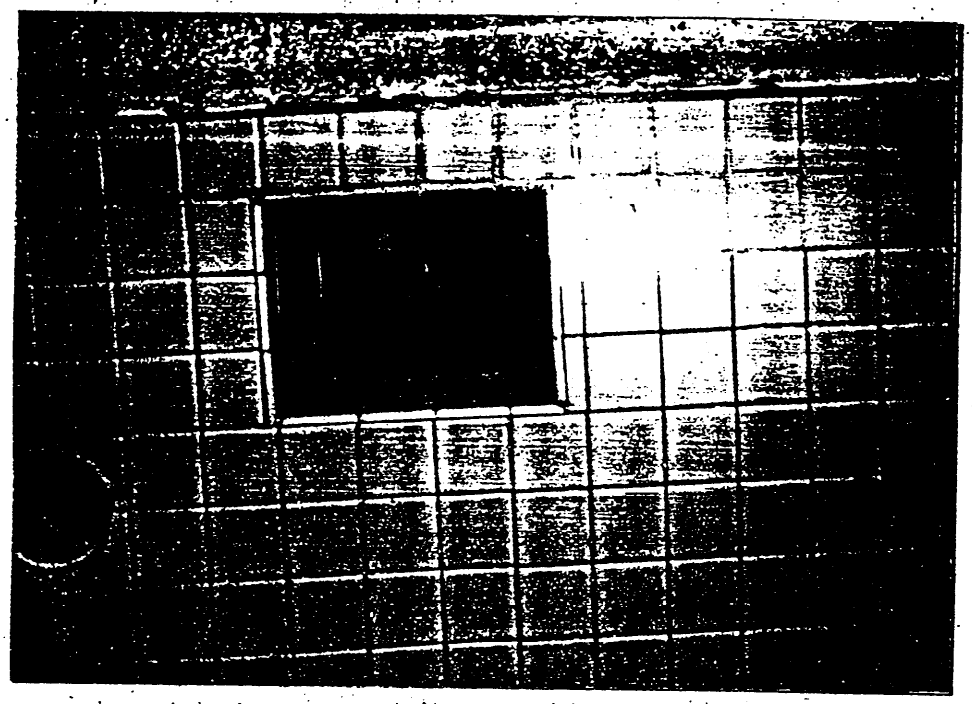
Skimmer and jets on wall behind which victim was sitting at time of the incident. Wall in far background is where the ON switch to recirculating pumps is located.



26

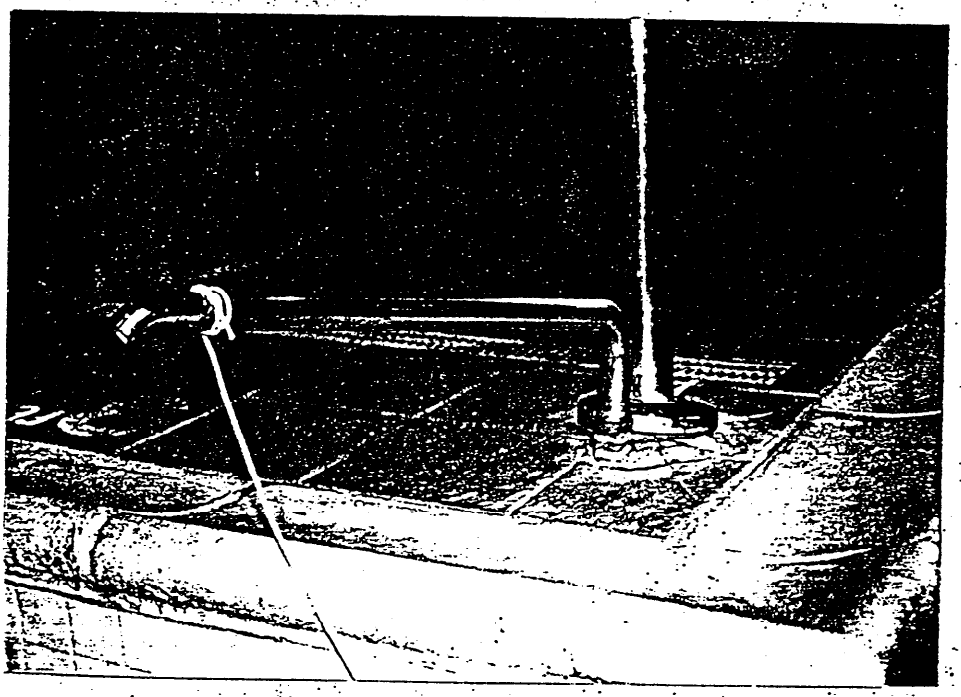
Another skimmer and jets.

EXHIBITS I25/26



27

Third skimmer and jets.



28

Pipe to fill hot tub. This pipe is not connected to any pump's.

EXHIBITS I27/28