John D. Rockefeller IV
Governor

George E. Pickett, M.D., M.P.H.
Director

State of West Virginia

DEPARTMENT OF HEALTH
CHARLESTON 25305

May 15, 1980

The Honorable A. James Manchin
Secretary of State for West Virginia
State Capitol Building
Charleston, West Virginia 25305

Dear Mr. Manchin:

Attached is a corrected page for the recently filed "Swimming Pool and Bathing Beach Regulations." Please note that under Section 16 for penalties, the fine was corrected to read $200.00 and the reference to the State Code was changed to refer to Chapter 16, Article 1, Section 18, of the Public Health Laws. Please sign the original and return to us so that we may have the regulation printed for distribution. The copy should replace page 11 of the regulation previously submitted to your office.

Should you have any questions in this regard, please contact me.

Sincerely,

George E. Pickett, M.D.
Director of Health

GEP/VRW/jmh

Enclosure

FILED IN THE OFFICE OF
SECRETARY OF STATE OF
WEST VIRGINIA

THIS DATE 5-19-80

OFFICE OF THE DIRECTOR
1800 WASHINGTON STREET, EAST
CHARLESTON, WEST VIRGINIA 25305
TELEPHONE (304) 348-2971

SECTION 16.0 PENALTIES

Any person who violates any provision of these Regulations or any regulation adopted by the West Virginia State Board of Health pursuant to the authority granted by these Regulations shall be guilty of a misdemeanor and shall upon conviction be punished by a fine of not more than $200.00 or by imprisonment for not more than thirty (30) days or both fine and imprisonment as provided in Chapter 16, Article 1, Section 18 of the Public Health Laws of West Virginia, West Virginia Code. Each day's failure to comply with any applicable provision of these Regulations shall constitute a separate offense.

SECTION 17.0 CERTIFICATION AND FILING OF THE REGULATION

I hereby certify that the foregoing Regulations constitute the official Regulations adopted by the State Board of Health on January 16, 1980, and filed pursuant to law in the Office of Secretary of State, State of West Virginia.

George E. Pickett, M.D.
Director of Health

Acknowledgement, that the above Regulations were filed with the Office of Secretary of State on April 11, 1980.

A. James Manchin
Secretary of State

FILED IN THE OFFICE OF
SECRETARY OF STATE OF
WEST VIRGINIA

THIS DATE 5-19-80

WEST VIRGINIA LEGISLATURE
Legislative Rule-Making Review Committee

COCHAIRMEN
ROBERT M. STEPTOE
STATE SENATE
126 EAST BURKE STREET
MARTINSBURG 25401

WILLIAM E. SHINGLETON
HOUSE OF DELEGATES
BOX 1548
FAIRMONT 26554

STAFF
LEGISLATIVE SERVICES
E-132 STATE CAPITOL
CHARLESTON 25305
PHONE (304) 348-2040

July 14, 1980

Hon. A. James Manchin
Secretary of State
W-151 State Capitol
Charleston, West Virginia 25305

Dear Mr. Manchin:

This is notification of approval of rules and regulations in accordance with Section 11, Article 3, Chapter 29A of the West Virginia Code.

On July 14, 1980, the Legislative Rule-Making Review Committee approved the following regulation:

Department of Health - Swimming Pool and Bathing Regulations - (Section 16).

A copy of the approved regulation is enclosed.

Very truly yours,

Robert M. Steptoe

Robert M. Steptoe

William E. Shingleton

William E. Shingleton

Enclosure

FILED IN THE OFFICE OF SECRETARY OF STATE OF WEST VIRGINIA
THIS DATE 7/16/80

SECTION 16.0 PENALTIES (presented June 9, 1980)

Any person who violates any of these Regulations or any regulation adopted by the West Virginia State Board of Health pursuant to the authority granted by these Regulations shall be guilty of a misdemeanor and shall upon conviction be punished by a fine of not more than $200.00 or by imprisonment for not more than thirty (30) days or both fine and imprisonment as provided in Chapter 16, Article 1, Section 18 of the Public Health Laws of West Virginia, West Virginia Code. Each day's failure to comply with any applicable provision of these Regulations shall constitute a separate offense.

SECTION 16.0 PENALTIES (revised)

Any person who violates any provision of these Regulations or orders issued pursuant thereto shall be punishable by a fine of not more than two hundred dollars or imprisonment for not more than thirty days, or both, as provided under Chapter 16, Article 1, Section 18 of the Public Health Laws of West Virginia, West Virginia Code.

PROPOSED
SWIMMING POOL AND
BATHING BEACH REGULATIONS

APRIL 11, 1980

WEST VIRGINIA STATE BOARD OF HEALTH

CHAPTER 1, ARTICLE 6

SWIMMING POOL AND BATHING BEACH REGULATIONS

1.5 FINAL ADOPTION - On January 16, 1980, the Regulations were adopted by the State Board of Health as prescribed by Chapter 29A, Article 3, Section 10, of the Code.

1.6 FINAL FILING - ON April 11, 1980, the final version of the Regulations, as adopted by the State Board of Health, with the proposed effective date were filed in the state register, pursuant to Chapter 29A, Article 3, Section 10, of the Code.

1.7 GOVERNORS FILING - On April 11, 1980, as prescribed by Chapter 29A, Article 3, Section 7, of the Code, the Regulations were filed with the Governor.

1.8 LEGISLATIVE RULE MAKING COMMITTEE - On April 11, 1980 as prescribed by Chapter 29A, Article 3, Section 7, of the Code, the Regulations were filed with the Legislative Rule Making Committee for review.

1.9 EFFECTIVE DATE - On _____, the Regulations became effective, as approved by the Legislative Rule Making Committee.

SECTION 2.0 DEFINITIONS

~~The following definitions shall apply in the interpretation and enforcement of these regulations.~~

~~2.1 APPROVED = A procedure of construction or operation is in accordance with design standards, specifications and instructions issued by the Division of Sanitary Engineering.~~

2.2 2.1 BATHING BEACH - A public bathing place located on a natural stream, pond or lake, or on an artificial lake or pond which is formed by impounding natural water.

~~2.3 CERTIFICATE OF APPROVAL = A written document issued by the Division of Sanitary Engineering giving a specific person permission to construct, alter or renovate a specific swimming pool, wading pool or bathing beach.~~

2.2 DIRECTOR - Director of the State Department of Health or his designee.

~~2.4 DIVISION OF SANITARY ENGINEERING = As used in this regulation, it is the Division of Sanitary Engineering, Environmental Health Services, State Department of Health.~~

~~2.5 HEALTH OFFICER = The State Director of Health, the executive officer of the local board of health or their duly authorized representative.~~

Formerly 2.6 2.3 OPERATOR - A person responsible for the operation of a swimming pool, wading pool or bathing beach.

Formerly 2.7 2.4 PERMIT - A written document issued by the ~~Health Officer~~ Director giving a designated person permission to construct, alter or renovate a swimming pool, wading pool or bathing beach or to operate ~~a specific swimming pool, wading pool, or bathing beach~~ such facility.

Formerly 2.8

2.5 PERSON Individual, city, town, partnership, association, company, corporation, governmental corporation, institution, department, division, bureau, agency, apartment, motel, country club, camp, or any other entity recognized by law.

Formerly 2.9

2.6 SWIMMING POOL - Any artificial basin, chamber, or tank used or intended to be used by the public for swimming, diving or recreational type bathing. It does not include baths where the main purpose is cleaning the body, nor individual type therapeutic tubs or tanks. Swimming pools are classified according to the following:

A. RECIRCULATION TYPE - A pool from which the water is withdrawn, treated, and returned to the pool.

B. FILL AND DRAW TYPE - A pool to which water is added, used for a period, then discarded.

C. FLOW THROUGH TYPE - A pool to which water is added continuously thereby replacing and causing water to overflow to waste.

Formerly 2.10

2.7 WADING POOL - Any artificial basin, chamber, or tank constructed of an impervious material used or intended to be used by the public for wading, particularly by small children.

SECTION 3.0 PROHIBITED POOLS

3.1 On or after the effective date of these Regulations, no swimming or wading pool of the Fill and Draw type shall be permitted.

3.2 On or after the effective date of these Regulations, no swimming or wading pools of the Flow Through Type shall be constructed unless an assured continuous flow of an approved water is available to fill the pool in eight hours or less.

SECTION 4.0 SUBMISSION OF PLANS AND SPECIFICATIONS FOR CONSTRUCTION PERMIT

4.1 On or after the effective date of these Regulations, no person shall establish, construct or renovate any swimming pool, wading pool or bathing beach within the State of West Virginia without first obtaining a ~~Certificate of Approval~~ Construction Permit from the ~~Division of Sanitary Engineering~~ Director.

4.2 Four (4) sets of completed applications, plans and specifications shall be submitted to the ~~Division of Sanitary Engineering~~ Director for approval at least 45 days prior to the date on which a ~~Certificate of Approval~~ Construction Permit from the ~~Division of Sanitary Engineering~~ Director is desired.

4.3 An application for the ~~Certificate of Approval~~ Permit shall be made to the ~~Division of Sanitary Engineering~~ Director on forms prescribed by the ~~Division of Sanitary Engineering~~ Director and shall be accompanied by, but not limited to, vicinity and site plans, detailed construction drawings, water source and treatment details, and specifications concerning filtration, chlorination, testing equipment and any other pertinent factors necessary for a complete operative system.

4.4 In addition to meeting all applicable requirements of these Regulations, all swimming pools and wading pools constructed or renovated after the effective date of these Regulations shall be constructed in accordance with all applicable design standards contained in the Division of Sanitary Engineering the West Virginia State Department of Health Bulletin ER-33 "Design Standards For Swimming Pools."

4.5 A Certificate of Approval Permit may be suspended or revoked by the Division of Sanitary Engineering Director for failure to comply with any provisions of the Certificate of Approval Permit or these Regulations.

4.6 The Division of Sanitary Engineering Director shall deny a Certificate of Approval Permit if the information on the application form is incomplete, inaccurate, false or misleading, or indicates that the applicable provisions of these Regulations cannot be met.

4.7 Any person whose application for a Certificate of Approval has been denied or whose Certificate of Approval has been suspended or revoked may request and shall be granted a hearing date on the matter within ten (10) days after the Division of Sanitary Engineering has received a written request for such hearing.

SECTION 5.0 OPERATING PERMITS

5.1 Ninety (90) days after the date these Regulations become effective, no person directly or indirectly shall in any manner conduct, control, manage, maintain, or operate a swimming pool, wading pool or bathing beach in the State of West Virginia unless said person has in his possession a valid Operating Permit issued by the Health Officer Director to operate such specific swimming pool, wading pool or bathing beach.

5.2 An application for an Operating Permit to operate a swimming pool, wading pool or bathing beach shall be made in writing to the Health Officer Director on a form prescribed by the State Department of Health Director signed by the applicant or his authorized agent, and shall contain such information as may be requested by the Health Officer Director to enable him to determine that the facility and its operation is in compliance with the applicable provisions of these Regulations.

5.3 The application for an Operating Permit shall be made at least 15 days before the actual or proposed operation of said swimming pool, wading pool or bathing beach is to be effected.

5.4 The Health Officer Director shall deny a permit if the information on the application form is incomplete, inaccurate, false, or misleading, or indicates that the applicable provisions of these Regulations cannot be met.

5.5 Only persons who comply with the applicable provisions of these Regulations shall be entitled to receive and retain an Operating Permit.

5.6 Swimming pools, wading pools or bathing beaches in operation at the time these regulations become effective, and meeting all applicable prior regulations, shall be deemed to be eligible for a permit to operate, provided that any construction or installation taking place after the effective date of these Regulations shall be in compliance with all applicable provisions of these Regulations.

5.7 Swimming pools, wading pools or bathing beaches put into operation after the date these Regulations become effective shall comply in full with all applicable provisions of these Regulations.

5.8 Permits shall not be transferable or assignable and shall automatically become invalid upon a change of ownership or upon suspension or revocation.

~~5.9 A permit to operate shall expire at midnight on the 31st day of December following the date of issuance.~~

~~5.10 Application for renewal of permit shall be made at least 15 days prior to expiration date of existing permit.~~

Formerly 5.11 5.9 In the event of an intended change or an actual change in ownership of a swimming pool, wading pool, or bathing beach, an application for an Operating Permit ~~to operate~~ shall be made to the ~~Health Officer~~ Director by the person concerned at least 15 days before the proposed or actual change is effected.

Formerly 5.12 5.10 A Permit may be suspended or revoked by the ~~Health Officer~~ Director if it is found that the swimming pool, wading pool or bathing beach is maintained or operated in violation of these Regulations, or any law, rule, or ordinance applicable thereto, or in violation of the conditions stated on the Permit.

Formerly 5.13 5.11 An Operating Permit shall not be reinstated until an inspection by the ~~Health Officer~~ Director determines that the swimming pool, wading pool or bathing beach is in compliance with all applicable provisions of these Regulations and any orders, rules or instructions issued by the ~~Health Officer~~ Director.

Formerly 5.14 5.12 Operational Permits shall be posted in a conspicuous place at the swimming pool, wading pool or bathing beach facility, and said Permit shall be readily available to the ~~Health Officer~~ Director.

Formerly 5.15 5.13 Any person whose application for an Operating Permit ~~to operate~~ for a swimming pool, wading pool or bathing beach has been denied, or whose permit has been suspended or revoked may petition and shall be granted a hearing on the matter within 10 days after the ~~Health Officer~~ Director has received a written petition for such hearing.

SECTION 6.0 INSPECTIONS

6.1 The owner, operator, or person in charge of a swimming pool, wading pool or bathing beach shall provide the ~~Health Officer~~ Director with immediate access to the entire premises for the purpose of inspection, and shall furnish all requested and necessary information to make the inspection complete.

6.2 The ~~Health Officer~~ Director shall conduct a minimum of two (2) complete inspections per year.

6.3 The ~~Health Officer~~ Director shall have the authority to order changes relative to improving the operation and sanitary conditions of the swimming pool, wading pool or bathing beach and if deemed necessary, can immediately order the closing of such facilities until corrective changes have been made.

SECTION 7.0 WATER QUALITY REQUIREMENTS

7.1 Disinfection of all swimming pool and wading pool water is mandatory ~~and unless otherwise approved in writing by the Division of Sanitary Engineering, chlorine and hypochlorites shall be the only type of disinfectants permitted.~~

7.2 Chlorination of swimming and wading pools shall be accomplished by means of a continuously operated mechanical chlorinator. Hand batch feeding is prohibited.

Formerly 7.2

7.3 Chlorination shall be practiced in swimming pools and wading pools so as to maintain a free available chlorine residual of 0.4 to 1.0 mg/l.

7.4 Cyanurate acid, when used as a stabilizer, must be maintained at a level between 30 and 100 mg/l.

7.5 When using chlorinated cyanurates or its chlorinated derivatives as disinfectants, a free chlorine residual shall be maintained between 1.0 and 3.0 mg/l.

7.6 Other disinfectants, registered by the United States Environmental Protection Agency, may be used with the approval of the Director.

Formerly 7.3

7.7 Chemical Requirements

A. Swimming Pools - Chemical limits shall conform to the chemical limits specified in Chapter 1, Article 5, West Virginia Board of Health "Public Water Supply Regulations."

B. Bathing Beaches - Chemical limits shall conform to limits prescribed by Chapter 20, Article 5 Water Resources Board "Administrative Regulations of the State of West Virginia for Water Quality Criteria on Inter and Intra State Streams" for Category A, Water Contact Recreation Waters.

Formerly 7.4

7.8 Bacteriological Requirements

A. To monitor bacteriological quality of swimming pools, wading pools and bathing beaches, samples shall be collected and submitted for bacteriological analysis at a frequency to be determined by the ~~Division of Sanitary Engineering~~ Director.

~~When deemed necessary, the Health Officer may require that additional samples for bacteriological analysis be submitted.~~

B. The presence of the coliform group as indicated by the samples examined shall not exceed the following limits:

1. Swimming and Wading Pools

When 10 ml. standard portions are examined, not more than 10% in any one month shall show the presence of the coliform group. The presence of the coliform group in 3 or more 10 ml. portions of a standard sample will not be allowable if this occurs:

(a) In two consecutive samples;
(b) In more than one sample per month when less than 20 are examined per month.
(c) In more than 5% of the samples when 20 or more are examined per month.

When organisms of the coliform group occur in 3 or more of the 10 ml. portions of a single standard sample, daily samples from the same sampling point shall be collected promptly and examined until the results obtained from at least two consecutive samples show the water to be of satisfactory quality.

When the membrane filter technic is used, the arithmetic mean coliform density of all standard samples examined per month shall not exceed one per 100 ml. Coliform colonies per standard sample shall not exceed 3/50 ml., 4/100 ml., 7/200 ml., or 13/500 ml. in:

(a) Two consecutive samples;
(b) More than one standard sample when less than 20 are examined per month; or
(c) More than 5% of the standard samples when 20 or more samples are examined per month.

Formerly 7.5

7.9 pH Control

A. Swimming pools and wading pool - The pH shall be maintained in an alkaline condition as indicated by a pH of not less than 7.2 nor greater than 7.8 at any time the facility is in use.

B. Swimming pools and wading pools which are equipped with gaseous chlorination feeders, must be equipped with a mechanical chemical feeder to continuously control pH. Hand batch feeding into the pool is prohibited.

C. Bathing beaches - When the pH is less than 6.5 or greater than 8.5 the beach shall not be used for bathing.

SECTION 8.0 CONTROL TESTS AND OPERATIONAL RECORDS

8.1 All swimming pools and wading pools shall have available at all times, approved testing equipment for making pH, free chlorine residuals, and any other tests as considered necessary by the ~~Division of Sanitary Engineering~~ Director.

8.2 Written results of the tests listed under subsection 8.1, attendance data, number of hours of equipment operation, and any other information as required by the ~~Division of Sanitary Engineering~~ Director shall be maintained by the operator for a period of at least one year.

8.3 Weekly, or as otherwise directed by the ~~Division of Sanitary Engineering~~ Director, the operator of a swimming pool, wading pool, or bathing beach shall submit to the ~~Health Officer~~ Director on forms prescribed by or approved by the ~~Division of Sanitary Engineering~~ Director, a summary of operation and tests.

8.4 Tests to determine the pH, free chlorine residual, and any other parameters, as directed by the ~~Division of Sanitary Engineering~~ Director, shall be conducted by a qualified operator of a swimming pool or wading pool at least twice daily, and the results recorded on the operating report.

SECTION 9.0 SUPERVISION OF BATHERS

9.1 A ~~qualified~~ operator ~~trained in first aid and resuscitation~~ shall be on duty at all times the swimming pool, wading pool or bathing beach is open for swimming.

9.2 The swimming pool, wading pool or bathing beach operator shall be in full charge and have the authority to exclude from the premises any person who does not abide by the safety and sanitation rules which shall include but not limited to:

A. Spitting, spouting of water, blowing of nose, urination and defecation in the swimming pool, wading pool or bathing beach water shall be strictly prohibited.

B. Persons having any infectious or communicable disease or open sores shall be excluded from using the swimming pool, wading pool or bathing beach.

~~C. No running, boisterous or rough play, except for supervised water sports shall be permitted on the premises.~~

Formerly D. C. All bathers shall shower before entering the swimming pool or wading pool.

SECTION 10.0 SAFETY REQUIREMENTS

10.1 Swimming pool and bathing beaches shall have one unit of life saving equipment as determined by the ~~Division of Sanitary Engineering~~ for each life guard station which shall be readily accessible for emergency use. Pools without lifeguards shall have a minimum of one unit of life saving equipment available. All equipment shall be kept in good repair.

10.2 Every pool and bathing beach shall be equipped with a standard American Red Cross 24-unit first aid kit or equivalent type kit which shall be kept stocked and ready for use.

~~10.3 Every pool or bathing beach shall have life guards on duty at all times when the area is open for use. The life guard shall be adequately trained in life saving and first aid and possess certification of completing a Red Cross Senior Life Saving Course or other accredited and acceptable certification.~~

10.3 The Director shall prescribe the number of life guards required at any pool or bathing beach.

10.4 Telephone service shall be available at the pool or bathing beach and emergency phone numbers for rescue agencies shall be posted.

~~10.5 All outdoor swimming pools and wading pools shall be enclosed with a 6 foot chain link fence and lockable gate.~~

SECTION 11.0 ROUTINE MAINTENANCE AND OPERATION

11.1 Visible debris on the bottom of the pool shall be removed every 12 hours or more frequently as required.

11.2 Visible scum or floating matter on the water surface shall be removed as frequently as required.

11.3 Deck areas, sidewalks and other areas around the pool and bath house shall be hosed and brushed as required to keep them clean.

11.4 Bath house dressing rooms, showers, and toilet areas shall be kept in a clean condition.

11.5 All pools shall be drained as necessary so that the pool can be inspected, cleaned and/or repaired.

11.6 Swimming pool water treatment facilities shall be operated 24 hours per day.

SECTION 12.0 BATH HOUSES, CONCESSIONS AND OTHER APPURTENANT FACILITIES

12.1 Bath house, clothing storage facilities, toilet and shower facilities shall be kept in good repair and in a clean and sanitary condition.

12.2 All doors, shower curtains, windows, faucets, drains, or other parts of the building, including plumbing, electrical switches, lighting and controls, shall be kept in good repair and replaced immediately if defective.

12.3 All concession stands shall be operated in accordance with Chapter 1, Article 3, West Virginia Board of Health "Food Service Sanitation Regulation."

SECTION 13.0 COMPLIANCE REQUIREMENTS

13.1 The design, construction, installation, alteration, location and operation of all public swimming pools, wading pools and bathing beaches shall comply with all applicable provisions of these Regulations.

13.2 The ~~Health Officer~~ Director shall have the authority to immediately close any swimming pool, wading pool, or bathing beach which he determines to be unsafe, has not been approved by the ~~Division of Sanitary Engineering~~ Director, or have willfully violated any provisions of these Regulations.

13.3 If any inspection or prescribed water quality test conducted on any pool by the ~~Health Officer~~ Director discloses excessive turbidity (as determined by using a standard ~~Division of Sanitary Engineering~~ clarity sight disc) or a chlorine residual less than that permitted under Sections ~~7.2~~, 7.3 and 7.5 of these Regulations, the ~~Health Officer~~ Director shall have the authority to immediately close the swimming pool or wading pool until such time as the necessary corrections are effected.

SECTION 14.0 REPEAL OF FORMER REGULATIONS

All regulations previously adopted by the West Virginia Board of Health which are in conflict with the provisions of these Regulations are hereby repealed.

SECTION 15.0 SEVERABILITY

Each section of these Regulations and every part of each Section is an independent Section and a part of a Section, and the holding of any Section or part thereof to be unconstitutional, void, or ineffective for any cause does not affect the validity or constitutionality of any other Section or part thereof.

disapproved.

SECTION 16.0 PENALTIES

Any person who violates any provision of these Regulations or any regulation adopted by the West Virginia State Board of Health pursuant to the authority granted by these Regulations shall be guilty of a misdemeanor and shall upon conviction be punished by a fine of not more than ~~$200.00~~ $500.00 or by imprisonment for not more than thirty (30) days or both fine and imprisonment as provided in Chapter 16, Article 1, Section 20 of the Public Health Laws of West Virginia, West Virginia Code. Each day's failure to comply with any applicable provision of these Regulations shall constitute a separate offense.

SECTION 17.0 CERTIFICATION AND FILING OF THE REGULATION

I hereby certify that the foregoing Regulations constitute the official Regulations adopted by the State Board of Health on January 16, 1980, and filed pursuant to law in the Office of Secretary of State, State of West Virginia.

George E. Pickett, M.D.
Director of Health

Acknowledgement, that the above Regulations were filed with the Office of Secretary of State on April 11, 1980.

A. James Manchin
Secretary of State

DESIGN STANDARDS
FOR
SWIMMING POOLS

APRIL 11, 1980

BULLETIN ER-33

WEST VIRGINIA STATE BOARD OF HEALTH

DESIGN STANDARDS FOR SWIMMING POOLS

SECTION 1.0 DEFINITIONS

1.1 BATHER - Those persons in bathing suits who are in the pool and decking areas.

1.2 DECKING - Those areas surrounding a pool installation which are specifically constructed or installed for use by bathers walking without footwear (bare feet).

1.3 DEEP AREAS - Those portions of a pool having water depths in excess of 5'0" (1.52 m).

1.4 FLOOR - Shall refer to the interior bottom pool surface and consists of that surface from a horizontal plane up to a maximum of a 45° slope.

1.5 INGROUND SWIMMING POOLS - Any pool whose sides rest in partial or full contact with the earth.

1.6 INSTRUCTIONAL AREA - Those water areas ranging in depth from 2'0" (61 cm) to 3" (91 cm) which are used for swimming instruction.

1.7 LADDERS, STEPS AND STAIRS - (Combination) It is conceivable that the below defined facilities may be used in conjunction with each other.

A. LADDERS - A series of vertically separated treads or rungs either connected by vertical rail members or independently fastened to an adjacent vertical pool wall.

B. STEPS - A riser/tread or series of risers/treads extending down from the deck and into the pool area.

C. STAIRS - A riser/tread or series of risers/treads extending down into the deck but terminating at the pool wall thus creating a "stair-well."

D. RECESSED STEPS - A series of vertically spaced cavities in the pool wall creating tread areas for stepholes.

1.8 NON-SWIMMING AREA - Any portion of a pool where water depth, offset ledges or similar irregularities would prevent normal swimming activities.

1.9 OVERFLOW SYSTEM - This is a replacement for the traditional term "gutter." This encompasses rim type overflows and collection systems of various design and manufacture.

1.10 POOLS

A. NON-PERMANENTLY INSTALLED SWIMMING POOL - One that is so constructed that it may be readily disassembled for storage and re-assembled to its original integrity.

B. ON-GROUND SWIMMING POOL - Any pool whose sides rest fully above the surrounding earth.

C. PERMANENTLY INSTALLED POOL - One that is constructed in the ground, or in a building in such a manner that the pool cannot be readily disassembled for storage.

D. PUBLIC POOL - Shall be defined as any pool, other than a residential pool, which is intended to be used collectively by numbers of persons for swimming or bathing and is operated by any person be he owner, lessee, operator, licensee, or concessionaire, regardless of whether a fee is charged for such use. Reference within the standards to various types of public pools are defined by the following categories:

Class "A" - Competition Pool - Any pool intended for use for accredited competitive aquatic events such as FINA, AAU, NCAA, etc.

Class "B" - Public Pool - Any pool intended for public recreational use.

Class "C" - Public Pool - Any pool operated solely for and in conjunction with lodgings such as hotels, motels, apartments, condominiums, etc.

Class "D" - Special Purpose Pool - Any pool operated as a treatment, water therapy, or non-recreational function.

E. WADING POOL - A pool that may range in water depth from 2' (61 cm) down to zero for wading by non-swimming children.

1.11 SHALLOW AREAS - Those portions of a pool ranging in water depth from 3' (91 cm) to 5' (1.52 m).

1.12 TOXIC - The word "toxic" shall refer to the adverse physiological effect on man.

1.13 VERTICAL - Throughout these standards, vertical is defined as not exceeding an 11° (one foot (1') horizontally for each five feet (5') vertically) slope from plumb.

1.14 WALLS - Shall refer to interior pool wall surfaces and consists of surfaces from the vertical to a 45° slope.

1.15 WATER LINE - The water line shall be established in one of the following ways:

A. The water line shall be deemed to fall in the midpoint of the operating range of the skimmers.

B. On pools with overflow systems, the water line shall be deemed to be that established by the height of the overflow rim.

SECTION 2.0 DESIGN REQUIREMENTS

2.1 Plans and specifications with supporting data shall be submitted and approved by the Director, prior to construction. In the case of Class A and B pools, such plans and specifications shall bear the seal of a registered architect or professional engineer.

2.2 The swimming pool structure shall be constructed of materials which are non-toxic to man and the environment, impervious and enduring, which can withstand the design stresses, which will provide a watertight structure with a smooth easily cleaned surface without cracks or joints, excluding structural joints, or to which a smooth easily cleaned surface finish is applied or attached.

2.3 Sand or earth bottoms shall not be permitted as a finish for interior surfaces in a swimming pool.

2.4 The floor of all pools shall be white, light colored, or light colored patterns in order to facilitate the identification of any objects within the pool.

2.5 The surfaces within a swimming pool intended to provide footing for bathers shall be designed to provide a minimum slip-resistant surface equivalent to a coefficient of static friction of .40 when wet. The roughness or irregularity of such surfaces shall be less than that which would produce bruises or cuts to the feet when used during intended use and reasonable forseeable abuse.

2.6 Instructional areas of pool shall be permanently and bisually set apart from the shallow areas with a permanently installed life line, depth numbers, and a 4" (10 cm) minimum width row of floor tile, painted line or similar of a color contrasting with the bottom. Instructional areas shall not adjoin deep areas.

2.7 Shallow areas of the pool shall be visually set apart from the deep areas with a life line, depth numbers, and a 4" (10 cm) minimum width row of floor tile, painted line or similar of a color contrasting with the bottom.

2.8 Where a high water table may be encountered, a means of hydrostatic relief from under the pool floor or around the pool walls shall be provided.

2.9 There shall be a construction tolerance allowed on all dimensions (length, width, depth, etc.) of plus or minus 2" (5 cm) unless otherwise specified (such as in a Class A pool). The designed water level shall have a maximum construction tolerance at the time of completion of the work of plus or minus ¼" (.6 cm) for pools with adjustable weir overflows, of plus or minus 1/8" (.3 cm) for pools with non-adjustable overflow systems.

2.10 The maximum horizontal distance of the tip of the board from Point A may vary plus or minus 3" (8 cm) to allow for construction tolerances on Class B and C pools. (See Figure I.).

2.11 Maximum board height over water shall have a plus 3" (8 cm) construction tolerance on Class B and C pools to allow for construction variances only.

SECTION 3.0 AREA REQUIREMENTS

3.1 No limits are specified for shape of swimming pools except that consideration must be given to shape from the standpoint of safety and the adequate recirculation of the swimming pool water.

3.2 The size of Class A or D pools shall be governed by the requirements of the activities for which the installation is intended.

3.3 The maximum designed attendance at Class B or C pools shall be based upon the following:

A. One bather for each 15 square feet (1.4 m^2) of shallow, instructional or wading area.

B. One bather for each 20 square feet (1.9 m^2) of deep area not counting that area figured as diving area.

C. One bather for each 300 square feet (27.9 m^2) of diving area per diving board.

3.4 When the area of the decking provided within the pool enclosure totals 100% or more of the combined totals of A, B, and C (see Section 3.3); A and B may be decreased to 12 square feet (1.1 m^2) and 15 square feet (1.4 m^2) respectively.

3.5 When the decking area provided within the pool enclosure totals 200% or more of the combined total of A, B, and C (see Section 3.3); A and B may be decreased to 8 square feet (.7 m^2) and 10 square feet (9 m^2) respectively.

SECTION 4.0 FLOORS

4.1 The slope of the shallow area floor shall be uniform, shall slope to completely drain and shall not exceed 1 foot (or meter) of fall in 12 feet (or meters) horizontally for Class A and B pools or 1 foot (or meter) of fall in 10 feet (or meters) for Class C pools.

4.2 The slope of the deep area floor shall be uniform, shall slope to completely drain and shall not exceed 1 foot (or meter) of fall in 3 feet (or meters) horizontally. However, such permitted slopes are not intended to provide any less water depths from those specified if the pool is intended for diving.

4.3 Where floor slopes are carried up to join walls, such slopes may be increased and the specified depths for diving pools may be reduced in this immediate area by the use of a radius tangent to the wall and the floor. Said radius shall conform to the following:

A. The radius shall have its center no less than 2'9" (84 cm) below the water level in deep areas or 2'6" (76 cm) in shallow areas.

B. The arc of the radius is tangent to the wall.

C. The radius shall be no less in length than the difference between the depth at the center of the radius and the water depth at that point. In the case of the deep end wall where diving equipment is to be located, the water depth referred to above shall be the D2 dimension in the table for diving sections less than 3" (8 cm) to allow for a drainage slope to the main outlet.

4.4 Any other configuration which meets or exceeds the length, width, and depth or water provided by the foregoing shall be acceptable provided such configuration complies with all other requirements of this standard.

SECTION 5.0 WALLS

5.1 Walls in Class B and C pools shall be vertical for a minimum distance of 2'9" (84 cm) from the water line in deep areas or 2'6" (76 cm) in shallow areas from which point they may be radiused to join the floor, said radius shall conform to the following:

A. The radius shall have its center no less than 2'9" (84 cm) below the water level.

B. The arc of the radius is tangent to the wall.

C. The radius shall be no less in length than the difference between the depth at the center of the radius and the water depth at that point. In the case of the deep end wall where diving equipment is to be located, the water depth referred to above shall be the D2 dimension in the table for diving sections less 3" (8 cm) to allow for a drainage slope to the main outlet.

5.2 Any other configuration which meets or exceeds the length, width, and depth of water provided by the foregoing shall be acceptable provided such configuration complies with all other requirements of this standard.

5.3 The vertical portion of a pool wall may have up to an 11° inward or outward slope except for those walls terminating at racing lanes in Class A or B pools which shall have only a construction tolerance of 1° (1" in 5' or 8.3 centimeters in 5 meters) from vertical.

SECTION 6.0 DEPTHS

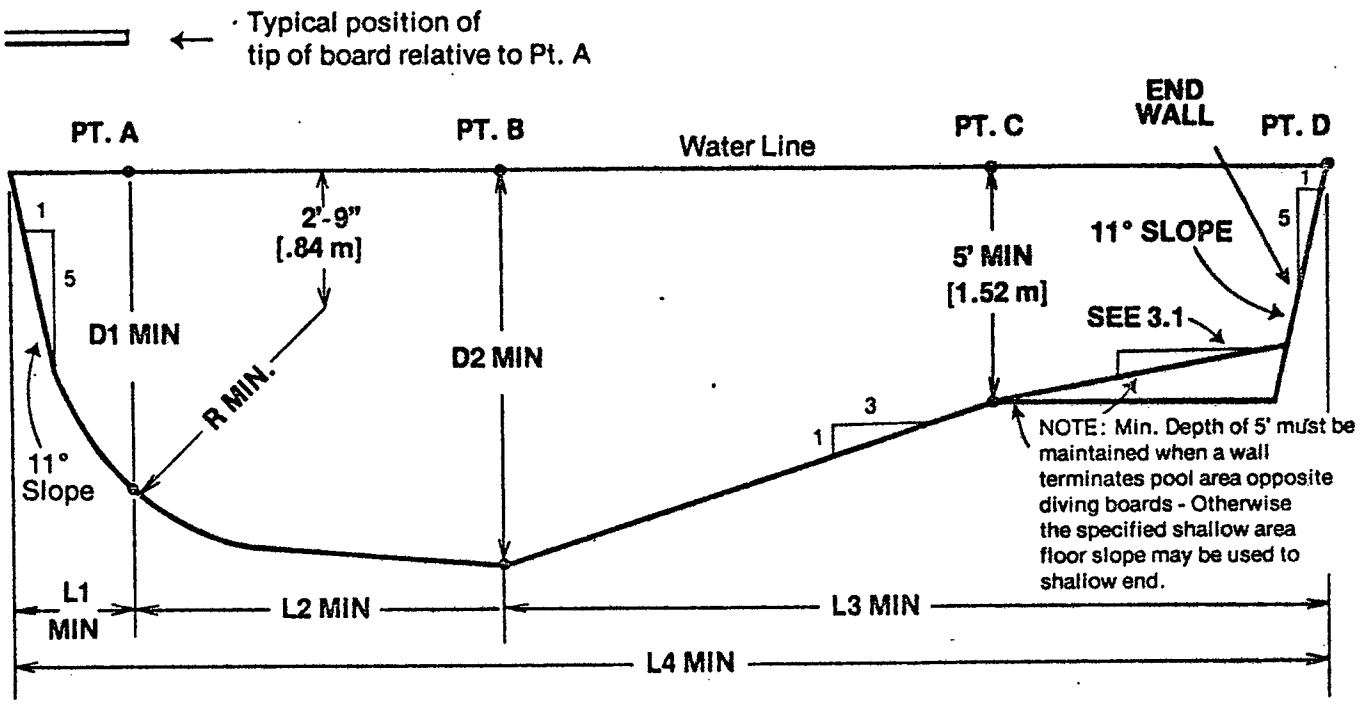
6.1 Class A pools intended for competitive diving shall be designed and constructed so as to provide the water depths specified by the appropriate activity (FINA, AAU, NCAA, etc.).

6.2 Class B or C swimming pools shall have a minimum depth of water in the shallow end of the main swimming area of between 3' (91 cm) and 3'6" (1.06 m). Exceptions may be made in a recessed area of the main swimming pool, outside of a competitive swimming course, where the pool is of an irregular shape.

6.3 Class B and C pools intended for diving shall provide the minimum water depths called for in the table and diagram on Table I.

TABLE I

MINIMUM DIMENSIONS FOR
Class A & B Pools with Diving Equipment



Pool Type	Minimum Dimensions							Minimum Width of Pool at:		
	D_1	D_2	R	L_1	L_2*	L_3*	L_4	PT. A	PT. B	PT. C
VI	(2.13m) 7'-0"	(2.59m) 8'-6"	(1.68 m) 5'-6"	(.76 m) 2'-6"	(2.44 m) 8'-0"	(5.33 m) 17'-6"	(8.53m) 28'-0"	(4.88 m) 16'-0"	(5.49m) 18'-0"	(5.49 m) 18'-0"
VII	(2.29m) 7'-6"	(2.74m) 9'-0"	(1.83m) 6'-0"	(.91m) 3'-0"	(2.74m) 9'-0"	(4.88m) 16'-0"	(8.53 m) 28'-0"	(5.49 m) 18'-0"	(6.10m) 20'-0"	(6.10m) 20'-0"
VIII	(2.59m) 8'-6"	(3.05m) 10'-0"	(2.13m) 7'-0"	(1.22m) 4'-0"	(3.05m) 10'-0"	(5.18m) 17'-0"	(9.45m) 31'-0"	(6.10m) 20'-0"	(6.71m) 22'-0"	(6.71m) 22'-0"
IX	(3.25m) 10'-8"	(3.51m) 11'-6"	(2.59m) 8'-6"	(1.83m) 6'-0"	(3.20m) 10'-6"	(5.64m) 18'-6"	(10.67m) 35'-0"	(6.70m) 22'-0"	7.32m) 24'-0"	(7.32m) 24'-0"

L2 and L3 combined represent the minimum distance from the tip of board to pool wall opposite diving equipment.

POOL TYPE AND RELATED DIVING EQUIPMENT					
POOL TYPE	MAX. DIVING BOARD LENGTH	MAX. BOARD HGT. OVER WATER	POOL TYPE	MAX. DIVING BOARD LENGTH	MAX. BOARD HGT. OVER WATER
VI	10'	26" [⅔ meter]	VIII	16'	1 METER
VII	12'	30" [¾ meter]	IX	16'	3 METER

For board heights exceeding 3 meters see section 5.5

* NOTE: Placement of boards shall observe the following minimum dimensions. With multiple board installations minimum pool widths must be increased accordingly.

1 Meter or Deck Level Board to Pool Side	9' (2.74 m)
3 Meter Board to Pool Side	11' (3.35 m)
1 Meter or Deck Level Board to 3 Meter Board	10' (3.05 m)
1 Meter or Deck Level to another 1 Meter or Deck Level Board	8' (2.44 m)
3 Meter to another 3 Meter Board	10' (3.05 m)

6.4 Point A is a base reference point for pools designed for diving and shall be considered as being the horizontal location of the tip of the diving equipment.

6.5 Public pools with diving facilities in excess of 3 meters in height or pools designed for platform diving shall comply with the pool dimensions for such facilities specified by FINA, AAU, NCAA, etc.

6.6 Diving equipment shall be classified and permanently identified as to Type of pool required for its installation; and diving equipment of a greater Type, i.e., Type VII shall not be installed on a pool of less Type, i.e., Type VI. However, equipment suitable for installation on a lower pool Type may be installed on any higher pool Type providing no less a water envelope is provided from Point A than called for in the lower Type.

6.7 Diving units shall be permanently anchored to the deck and shall be installed in accordance with the above specifications.

6.8 There shall be a completely unobstructed clear vertical distance of 13' (3.96 m) above any diving board measured from the center of the front end of the board, and this area shall extend horizontally at least 8' (2.44 m) behind, 8' (2.44 m) to each side and 16' (4.88 m) ahead of Point A.

6.9 Unless the diving equipment manufacturer specifies other dimensions for his particular equipment, the distances to be used between center line of the rear hold down and the front fulcrum in the installation of all fulcrum actuated diving equipment shall be the following with an allowable construction tolerance variation of plus or minus 6" (15 cm).

8' board 40" 10' board 52" 12' board 62"

6.10 Diving equipment contact surfaces shall be of a slip-resistant design.

6.11 Supports, platforms and steps for diving equipment shall be of sufficient structural strength to safely carry the anticipated loads. Steps shall be of corrosion-resistant material easily cleanable and with treads of slip-resistant design. All diving stands higher than 21" (53 cm) measured from the deck to the top butt end of the board shall be provided with steps.

6.12 Any pool with a depth of less than 8'6" shall be posted for no diving.

SECTION 7.0 WADING POOLS

7.1 Wading pools shall be separate and physically set apart from instructional or shallow water areas of swimming pools by at least 6' (1.83 m) of deck on Class B pools or 4' (1.22 m) of deck on Class C pools. Where a wading pool adjoins any deep water area, a minimum 4' (1.22 m) high barrier must be installed adequately separating the two pools.

7.2 A wading pool shall have a maximum water depth not greater than 14" (36 cm) and the water depth at the perimeter shall not exceed 9" (23 cm). Water depths may be reduced from the above maximums and may be brought to zero at the most shallow point.

7.3 Walls of wading pools shall be vertical except for the lower 6" (15 cm) which may be radiused to the floor. Walls shall not extend more than 6" (15 cm) above the water level at any point.

7.4 Floors of wading pools shall be uniform, sloped to drain with a slope not to exceed 1 foot (or meter) in 12' (or meters), and shall have a slip-resistant texture equivalent to a coefficient of static friction of .40.

7.5 Wading pools shall be designed to include:

A. An inlet line flow meter.

B. To operate continuous with a maximum 4.0 hour turnover rate.

C. An emergency drain to waste line.

D. An equalizer line to the main pool or separate water recirculation and filtration facilities.

E. Surface skimmers and bottom main drain.

SECTION 8.0 SPECIAL FEATURES

8.1 Underwater seat benches, when provided, shall not be over 20" (51 cm) below the water line and shall be:

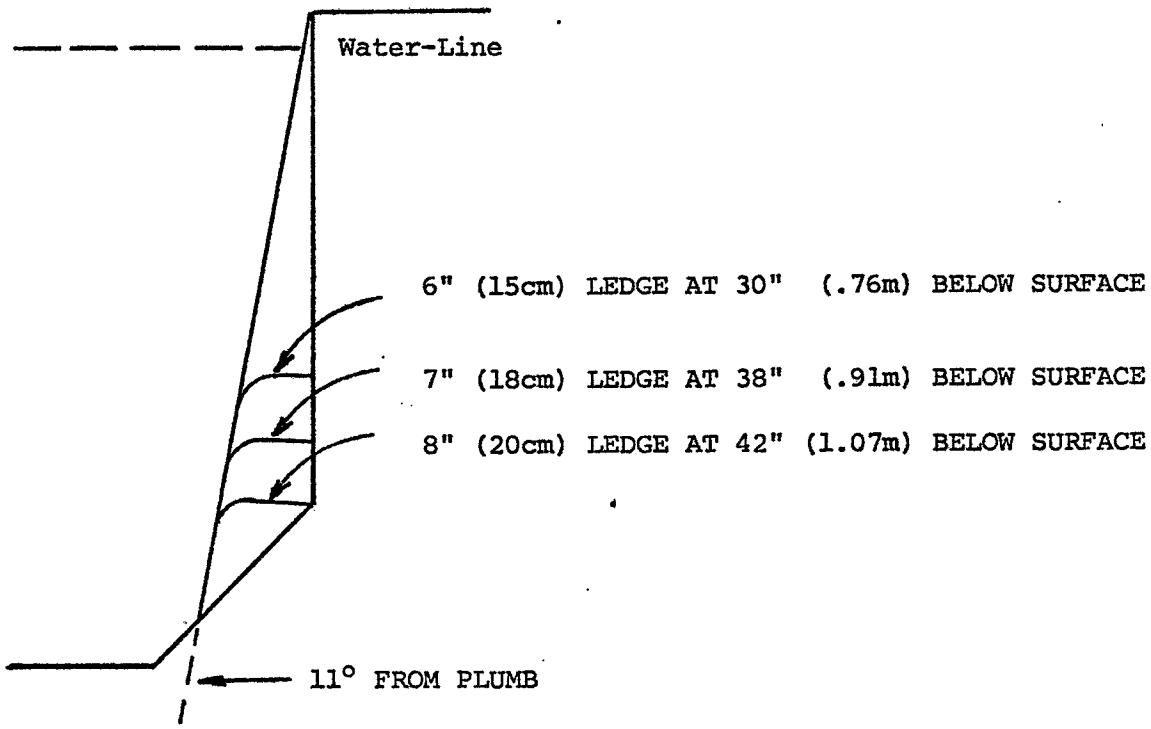
A. Visually set apart from the surrounding pool surfaces by a contrasting color or visual image such as provided by colored tile nosing, etc.

B. Completely recessed in either a separate alcove or wall indentation especially configured to accept same when located in the deep area of a pool.

C. Provided with a slip-resistant texture equivalent to a coefficient of static friction of .40* (*This value subject to change) when wet.

8.2 Off-set ledges, when provided, shall fall within an 11° line from plumb starting at the junction of the pool wall and water surface. Maximum width shall be 8" (20 cm) and shall have a slip-resistant texture equivalent to a coefficient of static friction of .40* (*This value subject to change) when wet.

FIGURE I



SECTION 9.0 LADDERS, STEPS AND STAIRS

9.1 All Type A, B, and C pools shall have at least two sets of ladders, stairs, steps, recessed steps or combination thereof located so as to fully serve both ends of the pool for purposes of ingress and egress. Other location and quantity requirements are as follows:

A. Where water depths are 24" (61 cm) or less at the pool wall, such areas shall be considered as providing their own natural mode for ingress and egress and therefore shall serve as a suitable substitute for such devices in those areas.

B. For pools or water areas over 30' (9.14 m) in width, both sides of each pool or area shall be served by providing additional ladders, stairs, steps or recessed steps.

C. In addition to the foregoing, additional such devices shall be provided when necessary to provide an overall minimum of one such device located every 75 lineal feet (22.86 m) of pool wall or fraction thereof.

D. Ladders, steps and stairs should be so located so as not to interfere with racing lanes if applicable.

9.2 The design and construction of pool ladders used shall conform to the following:

A. Pool ladders shall be made entirely of corrosion-resistant materials.

B. Ladder treads shall have slip-resistant tread surfaces with a minimum coefficient of static friction of .40* (*This value subject to change) when wet.

C. Ladder designs must provide two handholds or handrails to fully serve all treads.

D. The maximum outside diameter of handrails shall be 1.9" (4.8 cm) and a minimum of 1" (2.5 cm).

E. There shall be clearance of not more than 6" (15 cm) nor less than 3" (7.6 cm) between any ladder and the pool wall.

9.3 The design and construction of pool steps and stairs shall conform to the following:

A. Step and stair treads shall have a minimum unobstructed horizontal depth of 10" (25 cm) and a minimum unobstructed surface area of 240 square inches (1548 cm^2).

B. Risers at the centerline of the treads shall have a maximum uniform height of 12" (30 cm).

C. Step and stair treads must have slip-resistant surfaces with a minimum coefficient of static friction of .40* (*This value subject to change) when wet.

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

E. Handrails shall be installed in such a way that they can easily be removed with tools.

F. The most forward position of the handrail shall be within 6" (15 cm) of the most forward edge of the pool coping but shall not project more than 4" (10 cm) beyond same.

G. Seats may be provided as part of the steps or stairs.

H. All step or stair treads and seats shall be visually set apart from the surrounding pool surfaces by a contrasting color or visual demarcation such as provided by colored tile nosing, etc.

9.4 The design and construction of recessed steps in the pool wall shall conform to the following:

A. Stepholes at the centerline shall have a maximum vertical spacing of 12" (30 cm).

B. Maximum vertical distance between the pool coping edge and the uppermost recessed tread shall be 12" (30 cm).

C. Stepholes shall have a minimum tread of 5" (13 cm) and a minimum width of 12" (30 cm).

D. Stephole treads shall drain into the pool to prevent the accumulation of dirt thereon.

E. Each set of recessed steps shall be provided with two handrails to fully serve all treads and risers.

SECTION 10.0 DECKS

10.1 These requirements are intended to cover those areas surrounding any pool installation which are specifically constructed or installed for use by bathers walking without footwear (bare feet).

10.2 Decking and similar surfaces including step treads and coping shall be slip-resistant with a minimum coefficient of static friction of .40* (*This value subject to change) when wet.

10.3 The roughness or irregularity of such surfaces shall not cause bruises or cuts to the feet when subjected to intended use and reasonable forseeable abuse.

10.4 Special features in or on decks such as depth markings, pool brand insignias or similar shall conform to this section.

10.5 In the absence of specific local engineering practices, the work shall be performed in accordance with the recommended practices of the American Concrete Institute.

10.6 Excavation ramp areas must be adequately compacted so as to properly support the decking work in this area.

10.7 Synthetic deck surfaces such as specified in NSF Standard #39 for "Resilient Artificial Recreational Surfaces" may be used.

10.8 The minimum width of any decks including coping where same forms an unobstructed continuance of walking surface along the edge of the pool shall be as follows:

Class A - As recommended by the appropriate activity (FINA, AAU, NCAA, etc.)
Class B - 6' (1.83 m)
Class C - 4' (1.22 m)
Class D - 3' (91 cm) if provided

10.9 A minimum of 4' (1.22 m) walk width shall be provided on the sides and rear of any piece of diving equipment. A deck clearance of 24" (61 cm) shall be provided around any other piece of deck equipment which is 36" (91 cm) or less in height above the deck and a 36" (91 cm) deck clearance around all other pieces of deck equipment.

10.10 The maximum permissible slope of decking shall be ½" per foot (4 cm per meter) except for ramps and walkways which may be sloped to a greater extent.

10.11 The maximum open separation between adjoining slabs, such as at expansion joints and similar, shall be 3/16" (.48 cm) of horizontal clearance with a maximum difference in vertical elevation of 1/8" (.32 cm).

10.12 All joints where pool coping meets concrete decking shall be water tight so as to not allow water passage to the ground beneath.

10.13 Joints in decking work shall be provided as necessary to prevent cracks from developing which would be hazardous due to a change in elevations, a separation of surfaces or movement of the slab.

10.14 Where decking work joins concrete work other than the pools, such areas of joining shall be protected by a non-rigid material such as soft felt, mastic, or similar type expansion joints.

10.15 Where decking work joins pool coping, such area of joining shall be designed and installed so as to adequately protect pool coping and its mortar bed from damage as a result of reasonable movement of adjoining deck work.

10.16 Decks shall be edged, radiused, or otherwise relieved so as to present no exposed sharp corners.

10.17 Decks shall be sloped to effectively drain either to perimeter areas or to deck drains as may be required to adequately carry off pool splash water, deck cleaning water or rain water. Adequacy shall be established by: (1) The removal of water at a rate approximately equal to the rate of its arrival under normal conditions, (2) The absence of any puddles 1/16" in depth or more and exceeding 35 square inches (226 cm^2) ten minutes after the last arrival of any water, (3) The absence of any combination of such puddles exceeding 10% of the area of any deck slab ten minutes after the last arrival of any water. See suggested minimum slopes in Appendix C.

10.18 Site drainage shall be provided away from all deck work so as to direct all perimeter deck drainage as well as general site drainage away from such work. When required, yard drains shall be installed to prevent the accumulation or puddling of site water in the general area of the decking work and related improvements. Gutters and downspouts shall be provided or relocated as necessary to adequately carry roof water away from pool and decking areas.

10.19 Pool plumbing lines shall be placed under pressure test before and during the installation of pool decks. One or more gauges shall be provided as ready reference for the existence and continuance of satisfactory test pressures throughout the system during construction.

10.20 There shall be no valves installed in or under any decking work except for recirculation line valves which may be placed in decking areas provided a minimum 10" (25 cm) diameter access cover and shaft is provided to each such valve to facilitate its servicing.

10.21 All decking work shall be designed and installed in accordance with the engineering practices required in the area of the installation. This includes the design and quality of sub-base when required, concrete mix design, reinforcing, etc.

SECTION 11.0 SAFETY

11.1 Class B and C pools with over 1500 square feet (139 m^2) of water surface area shall have at least one elevated lifeguard chair for each 3000 square feet (279 m^2) of pool surface or fraction thereof. Where a pool is provided with more than one lifeguard chair and the pool width is 45' (13.72 m) or more, they shall be located on each side of the pool.

11.2 Depth of water in feet shall be plainly and conspicuously marked at or above the water surface on the vertical pool wall and on the top of coping or edge of the deck or walk next to the pool, at maximum and minimum points and at the points of break between the deep and shallow portions and at intermediate increments of depth. Such markings shall be spaced at no more than 25' (7.62 m) intervals and shall be arranged to be uniformly located on both sides of the pool as well as both ends. In the case of irregularly shaped pools, such markings shall designate all major deviations in shape as well as conforming to the foregoing where possible.

11.3 The depth marking numbers shall be 4" (10 cm) minimum height, of a contrasting color with the background and of a reasonably permanent nature. Markings on the vertical pool wall shall be in the uppermost portion of the wall and positioned to be read from the water side. Markings on the deck shall be within 18" (46 cm) of the water's edge and positioned to be read while standing on the deck facing the water. Deck markings shall be slip-resistant with a minimum coefficient of static friction of .40 when wet.

11.4 A life line shall be provided between 1' and 2' (30 cm and 61 cm) on the shallow side of the break in grade between the shallow and deep portions of the swimming pool, with its position marked with visible floats at not greater than 7' (2.13 m) intervals. The life line shall be securely fastened to wall anchors of corrosion-resistant materials and of the type which will be recessed or have no projection which will constitute a hazard when the line is removed. The line shall be of sufficient size and strength to offer a good handhold and support loads normally imposed by bathers.

11.5 There shall not be any protrusions, extensions, means of entanglement or other obstructions which can cause the submerged entrapment or injury to the bather. There shall be no obstruction extending from the pool wall or floor into the clear area of the diving portion of the pool.

11.6 Pools shall be provided with a suitable handhold around their perimeter in areas where depths exceed 3'6" (1.07 m). Handholds shall be provided no further apart than 4' (1.22 m) and may consist of any one or a combination of the following:

A. Coping, ledge, or deck along the immediate top edge of a pool that provides a slip-resistant surface of at least a 4" (10 cm) minimum horizontal width located at or not over 12" (30 cm) above the water level.

B. Ladders, steps, or seat ledges.

C. A rope or railing placed at or not over 12" (30 cm) above the water line fastened to the wall.

11.7 Class A, B, and C swimming pools shall be protected by a fence, wall, building, enclosure or solid wall or durable material of which the pool itself may be constructed or any combination thereof. Artificial barriers shall be constructed so as to afford no external handholds or footholds, of materials which are impenetrable by toddlers, at least 6' (1.83 m) in height, and equipped with a self-closing and positive self-latching closure mechanism at a height of at least 48" (120 cm) above the ground and provided with hardware for permanent locking.

11.8 All Class A and B and those Class C swimming pools with over 1500 square feet (139 m^2) of water area shall have at least one unit of life saving equipment conspicuously and conveniently on hand at all times which shall consist of the following:

A. A light, but strong pole with blunt ends and not less than 12' (3.66 m) long.

B. A ¼" (.6 cm) diameter throwing rope as long as 1½ times the maximum width of the pool or 50' (15.24 m), whichever is less, to which has been firmly attached a ring buoy with an outside diameter of approximately 15" (38 cm), or some other similar flotation device.

11.9 Emergency information posted at the telephone location shall consist of:

A. Name and phone number of nearest available physician.

B. Name and phone number of nearest ambulance service.

C. Name and phone number of nearest available hospital.

D. Name and phone number of nearest available police, fire and/or rescue unit.

SECTION 12.0 ILLUMINATION REQUIREMENTS

12.1 Where underwater lighting is used, not less than 0.85 watts shall be employed per square foot (.093 m^2) of area. Underwater lights for competitive swimming shall not be placed at the end of the racing lanes.

12.2 Where underwater lighting is used, and night swimming is permitted, area lighting shall be provided for the deck areas and directed toward the deck areas and away from the pool surface insofar as practical in a total capacity of not less than 0.6 watts per square foot (.093 m^2) of deck area. Where underwater lighting is not employed and night swimming is permitted, area and pool lighting combined shall be provided in an amount of not less than 2 watts per square foot (.093 m^2) of deck area.

SECTION 13.0 ELECTRICAL REQUIREMENTS

13.1 The requirements of the latest National Electrical Code, as published by the National Fire Protection Association, shall be followed for the wiring and grounding of all electrical equipment associated with a swimming pool and the bonding and grounding of all metallic appurtenances.

SECTION 14.0 HEATER REQUIREMENTS

14.1 The requirements of the latest American National Standards Institute (ANSIZ-21.56) standard shall be followed. See Pool Heater Sizing Table in Appendix B.

SECTION 15.0 SWIMMING POOL SLIDES

15.1 Refer to U. S. Consumer Product Safety Commission Standard For Swimming Pool Slides as published in the Federal Register, January 19, 1976 (Vol. 41, No. 12) for standards relating to swimming pool slides.

SECTION 16.0 CIRCULATION SYSTEMS

16.1 Public swimming pools shall have circulation and filtration equipment in accordance with criteria in these standards.

16.2 The equipment included in these standards shall be of adequate size to turn over the entire pool water capacity at least one every eight (8) hours.

16.3 A wading pool shall have equipment of adequate size to turn over the pool water capacity at least once every four (4) hours.

16.4 Equipment shall be designed and fabricated to drain the pool water from the equipment, together with exposed face piping, by removal of drain plugs and manipulating winter drain valves on other methods.

16.5 The circulation system shall be capable of returning the pool water to a turbidity level of 0.5 NTU's at least once during the twenty-four hour period following the peak bather load. In any event, the main drain grate must be clearly visible from the deep end of the pool at all times.

16.6 Every public pool shall be provided with an indicator measuring the rate of flow through the filter system with an appropriate range readable in gallons per minute and accurate within 10% actual flow.

16.7 Equipment furnished shall be provided with a manufacturer's guarantee which shall warrant the equipment free from manufacturing defects in materials and workmanship.

16.8 Equipment furnished shall be provided with installation and operation instructions.

16.9 A pressure gauge or gauges with an appropriate range shall be provided in connection with all filters.

16.10 Materials used in the circulation system components and appurtenances thereto shall comply with the pertinent requirements of the joint National Swimming Pool Institute - National Sanitation Foundation standards.

16.11 In climates subject to freezing temperatures, the pool shell and appurtenances, piping, filter system, pump and motor, and other components shall be so designed and constructed as to be winterized or protected from damage from freezing.

SECTION 17.0 FILTERS

17.1 Filter requirements - General

A. All filters shall be of such design as to maintain pool water under anticipated operating conditions in accordance with Section 16.5 of this standard.

B. All filters shall be so designed that filtration surfaces can be easily restored to the design capacity.

C. All filters shall be so designed that filtration surfaces can be made available for inspection and service.

17.2 A means shall be provided to permit release of air which enters the filter tank. This may be automatic, manual, or, where upflow design is used, all air must be expelled through the filter tank. Any filters incorporating an automatic internal air release as its principal means for the release of air must have lids which provide a slow and safe release of pressures as a part of its design. Any separation tank used in conjunction with a filter tank must have a manual means of air release or a lid which provides a slow and a safe release of pressures as a part of its design.

17.3 All separation tanks must have a cautionary statement warning the user not to start up the filter pump without first opening the air release. The statement must be visible and noticeable within the area of the air release.

17.4 Piping furnished with the filter shall be suitable material capable of withstanding three times the working pressure. The suction piping shall not collapse when there is a complete shut-off of flow on on the suction side of the pump.

17.5 All filter components which require servicing shall be accessible and available for inspection and repair when installed according to the manufacturer's instructions.

17.6 All type filters shall meet the safety performance standards in all respects of the joint National Swimming Pool Institute - National Sanitation Foundation standards covering such filters.

SECTION 18.0 PUMPS

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

18.2 On Class B pools the pump suction header shall be provided with a gauge(s) which indicates both pressure and vacuum; it shall be installed as close to the pump inlet as possible.

18.3 With all pressure filter systems a suitable removable strainer or screen shall be provided before all circulation pump(s) to remove solids, debris, hair, lint, etc. All water entering the pump shall pass through the screen.

18.4 Pumps shall be designed to perform the functions for which they are intended. All 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.

18.5 The design and construction of the pump and component parts shall be such that they can be operated safely and are not hazardous to the operator or maintenance personnel.

18.6 Where a mechanical seal is provided, components of the seal must be corrosion-resistant and capable of operating under conditions normally encountered in swimming pool operation.

18.7 Proper direction of rotation for the pump shall be clearly indicated by an arrow on the pump data plate, on a separate plate attached to the pump, or cast into the pump itself.

18.8 All motors shall have as a minimum an open drip-proof enclosure (as defined by NEMA standards) and constructed electrically and mechanically so they will perform satisfactorily and safely under the conditions of load and environment normally encountered in swimming pool installations.

18.9 Motors shall be capable of operating the pump under full load with a voltage variation of at least 5% 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.

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

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

18.12 All pumps used on public swimming pools shall meet the safety performance standards in all respects of the joint National Swimming Pool Institute - National Sanitation Foundation standards covering such pumps.

SECTION 19.0 OVERFLOW STANDARDS

19.1 The term "overflow systems" encompasses perimeter type overflows, surface skimmers, and surface water collection systems of various design and manufacture.

19.2 An overflow system shall be provided on all public swimming pools.

19.3 The overflow system shall be designed and constructed so that the water level of the pool is maintained at the operating level of the rim or weir device.

19.4 Perimeter type overflow systems when used as the only overflow system on a pool shall extend around a minimum of 50% of the perimeter of the pool. Recirculating type rim overflow systems shall be capable of continuously removing 50% or more of the recirculated water through the filter system.

19.5 All perimeter overflow systems shall be connected to the circulation system with a system surge capacity of not less than one gallon for each square foot (41 liters) per square meter of pool surface.

19.6 The perimeter overflow system in combination with the upper rim of the pool shall constitute a handhold, and is subject to the standards as shown in the design section of this standard. The hydraulic capacity of the perimeter overflow system shall be capable of handling 100% of the circulation flow.

19.7 Nothing in this section shall preclude the use of roll out or deck level type swimming pools, but in the case of competitive pools the ends of the pool must provide a visual barrier that can be seen by swimmers.

19.8 When surface skimmers are used as the sole overflow system, one surface skimmer shall be provided for each 800 square feet (74.3 m^2) or fraction thereof, of the pool surface area. When two or more skimmers are used in a pool they shall be located to maintain effective skimming action over the entire surface area of the pool.

19.9 Permanently installed surface skimmers shall comply in all respects with the joint National Swimming Pool Institute - National Sanitation Foundation performance standards.

SECTION 20.0 INLETS AND OUTLETS

20.1 Pool inlets and outlets shall be provided and arranged to produce a uniform circulation of water and the maintenance of uniform chlorine or equivalent disinfectant residual throughout the pool.

20.2 The number of inlets shall be based on either one inlet per 600 square feet (55.7 m^2) of pool area or one inlet per 15,000 gallons (56.780 liters) of pool capacity, whichever is greater.

20.3 At least one outlet shall be provided at the lowest point of the floor to completely drain the entire floor area. When the main outlets for pool pump suction are installed in the pool floor near one end, the spacing shall not be greater than 20 feet (6.1 m) on centers and an outlet shall be provided not more than 15" (4.57 m) from each side wall. The total velocity through grate openings shall not exceed 2' per second (61 cm/second). The opening area in the grates shall not be larger than one square inch (6.45 cm^2) and shall be of such design as to prevent physical entrapment of fingers, toes, etc.

20.4 Outlets, except skimmers, on pump suction shall be covered with suitable protective grates that cannot be removed except with tools.

20.5 An over-the-rim spout, if used, shall be located under a diving board, adjacent to a ladder, or otherwise properly shielded so as not to create a hazard. Its open end shall have no sharp edges and shall not protrude more than 2" (5.1 cm) beyond the edge of the pool.

20.6 Inlets from the circulation system shall be so designed so as not to constitute a projecting surface hazardous to the bather.

SECTION 21.0 PIPING

21.1 Pool piping shall be sized to permit the rated flows for filtering and cleaning without exceeding the total head developed by the pump at the rated flow.

21.2 The water velocity in the pool piping should not exceed ten feet (10') per second (3.05 m/second) for discharge piping, except for copper pipe where the velocity for piping should not exceed eight feet (8') per second (2.44 m/second). Suction velocity for all piping should not exceed six feet (6') per second (1.83 m/second). Where velocities exceed these rates, summary calculations should be provided to show that rated flows are possible with the pump and piping provided.

21.3 All piping around the pool shall be sloped for adequate drainage and supported at sufficiently close intervals so that sagging between supports will not trap water. Provisions shall be made for expansion contraction of pipes by means of swing joints or other means, as required.

SECTION 22.0 WASTE WATER DISPOSAL

22.1 Overflow water should return to the filter system or may be discharged to a waste system approved by the Director. Where perimeter overflow water discharges into a sanitary sewer, a suitable air gap of not less than 2" (5.0 cm) shall be provided which accomplishes a gravity drop into the sewer without direct mechanical connection.

22.2 In lieu of the air gap, as described above, and where this cannot be practicably provided, a relief manhole may be constructed in the perimeter overflow main waste line with a grated cover, the clear area of which shall be twice the area of the main waste piping, and this shall be established at a level such that the waste flow in the line will rise in the manhole and overflow at the surface of the ground not less than 2 inches (5.0 cm) below the level of the perimeter overflow lip.

22.3 The disposition of sanitary sewage from the bathhouse shall be into a sanitary sewer, a septic tank or other waste line which meets with the approval of the Director.

22.4 Backwash water may be discharged into a sanitary sewer through an approved air gap or to an approved subsurface disposal system or by other means approved by the Director.

SECTION 23.0 WATER SUPPLY

23.1 The water supply serving the pool shall meet the requirements of the West Virginia State Health Department for potable water except that the Director may approve the use of water from natural sources, including saline water.

23.2 All portions of the potable water supply system serving the swimming pool and auxiliary facilities shall be protected against backflow.

23.3 Potable water introduced into the swimming pool, either directly or to the recirculation system, shall be supplied through an air gap (American National Standards Association A40.4-1942) or other approved means.

SECTION 24.0 DISINFECTANT AND CHEMICAL FEEDERS

24.1 A means of disinfecting the pool water shall be employed which provides a disinfecting residual in the pool water. Chlorine or chlorine compounds are most frequently used for this purpose but other bactericidal agents or apparatus may be acceptable if registered by the U. S. Environmental Protection Agency (Refer to Chemical Operational Parameters, Appendix A) and approved in writing by the Director.

24.2 Adequate and appropriate feeding and regulating equipment for introducing a disinfectant into the recirculating system shall be provided. The equipment as means of introducing approved disinfecting agents, shall be of sufficient capacity to maintain consistently a residual in the pool at all times equivalent to .6 to 3.0 ppm of free available chlorine, with a preferred range of 1.0 - 3.0 ppm free available chlorine. The DPD or other suitable free chlorine test method is required as a means of testing for the free chlorine residual.

24.3 Feeding equipment shall be of enduring type which will permanently and precisely feed the required quantity of disinfecting agent to the pool water, and the disinfecting material used shall be subject to field testing procedures which are simple and accurate.

24.4 Where elemental chlorine is supplied, a water operated gas chlorinator will be used which controls and regulates the flow of the gas. This unit will provide an automatic shut off of gas when water pressure fails and will vent leakage to outside atmosphere.

24.5 A. Hypochlorinators or other adjustable output rate chemical feeding equipment shall conform to the joint National Swimming Pool Institute - National Sanitation Foundation Standards Relating to Adjustable Output Rate Chemical Feeding Equipment and Flow Thru Chemical Feeding Equipment for Swimming Pools and shall bear the seal of an approved testing laboratory.

B. Capacities should be adequate to conform to the requirements of section 24.2.

24.6 Where gaseous chlorine equipment is provided below grade in a filter room or in any part of a building which provides housing: (a) The mechanical proportioning device and cylinders of chlorine shall be housed in a reasonably gas-tight, corrosion-resistant, and mechanically vented enclosure equipped with a venting window, (b) Air tight ducts from the bottom of the enclosure to atmosphere in an unrestricted area and a motor driven exhaust fan capable of producing at least one air change per minute shall be provided, (c) Automatic louvers of good design near the top of the enclosure for admitting fresh air are required, (d) Electrical switches for the control of artificial lighting and ventilation shall be on the outside of the enclosure adjacent to the door, (e) The floor area of the enclosure shall be of adequate size to house the

chlorinator, (f) Gas mask approved by the Bureau of Mines for protection against chlorine gas shall be provided, mounted outside the chlorine compartment, (g) Safety chains for holding cylinders upright in order to prevent accidental falling, and (h) It is highly recommended that a Chlorine Institute approved safety kit be stored outside or be near the room where chlorine cylinders are stored and used.

SECTION 25.0 BATHHOUSES

25.1 Adequate dressing and sanitary facilities shall be provided unless these 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 pool.

25.2 Dressing and sanitary facilities shall be provided with separations for each sex with no inter-connection. The rooms shall be well-lighted, drained, ventilated, and of good construction, with impervious materials. They shall be developed and planned so that good sanitation can be maintained throughout the building at all times.

25.3 Partitions between portions 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 so designed that a water way is provided between partitions and floor to permit thorough cleaning of the walls and floor areas with hoses and brooms.

25.4 Shower and dressing booths shall be provided in female dressing space and dressing booths shall be provided with curtains or other means of seclusion. This condition may be subject to variation for schools and other institutional use where a pool may be open only to one sex at a time.

25.5 The floors of the bathhouse shall be free of joints or openings and shall be continuous throughout the area with a slip-resistant surface which shall be relatively smooth to ensure complete cleaning. Floor drains shall be provided to ensure positive drainage of all part of the building with an adequate slope (not less than ¼" per foot (2.1 cm per meter) in the floor towards the drains.

25.6 An adequate number of 3/4" hose bibbs shall be provided for flushing down the dressing rooms and bathhouse interior.

25.7 Not less than one drinking fountain shall be provided available to bathers at the pool site.

25.8 Dressing room exits to pool shall be to the non-swimming area of the pool and at least 15 feet (4.57 m) shall be provided between the dressing room door and the pool edge.

25.9 Access to the pool for Class B pools shall be provided through the bathhouse or dressing room facilities if possible.

SECTION 26.0 TOILETS AND SHOWERS

26.1 Minimum sanitary facilities shall be provided as follows. The minimum criteria for bathhouse facilities shall be based upon the anticipated maximum attendance of bathers. Facilities for either sex shall be based upon a ratio of 60% of the total number of bathers being male and 40% being female, excepting where pool is confined to use by one sex only, wherein 100% of plumbing facility requirements shall be provided for that sex.

26.2 One water closet combination, one lavatory and one urinal shall be presumed to be adequate for the first 100 male bathers. One additional water closet, lavatory and urinal shall be provided for each additional 200 male bathers or major fraction thereof.

26.3 Two shower heads shall be provided for the first 100 males and one shower head shall be provided for each additional 50 male bathers.

26.4 A minimum of two water closet combinations shall be provided in each bathhouse building for the first 100 females. One additional water closet combination and lavatory shall be provided for each additional 100 female or fraction thereof. In Class "C" pools only one water closet combination is needed.

26.5 A minimum of two shower heads shall be provided, which shall be presumed to be adequate for the first 100 females and one shower shall be added for each 50 additional females.

26.6 Tempered water only will be provided at all shower heads. Water heater and thermostatic mixing valve shall be inaccessible to bathers and will be capable of providing 2 gpm (7.6 liters/per min.) of 90° water to each shower head.

26.7 Soap dispensers for providing either liquid or powdered soap shall be provided at each labatory and dispensers must be of all-metal or plastic type and no glass permitted in these units.

26.8 Stainless steel mirrors shall be provided over each lavatory. Toilet paper holders shall be provided at each water closet combination.

26.9 All fixtures shall be installed in accordance with local plumbing codes and shall be properly protected against back siphonage.

26.10 All fixtures should be so designed that they may be readily cleaned and that frequent cleaning and disinfecting will not cause damage.

SECTION 27.0 VISITOR AND SPECTATOR AREAS

27.1 There shall be absolute separation between the spaces used by visitors and spectators and those spaces used by bathers. Visitors and spectators in street clothes may be allowed within the perimeter enclosure if in a separate area segregated from the space used by the bathers.

27.2 Separate toilets should be provided for spectators.

SECTION 28.0 FOOD SERVICE

28.1 All food service areas must be designed in accordance with West Virginia Board of Health Regulation SF-3A "Food Service Establishment Sanitation Regulations".

SECTION 29.0 INSTRUCTIONS

29.1 Upon the completion of any swimming pool, the manager and his operators shall be given complete written and oral instructions by the builder as well as operational guidance of the pool, all equipment, and the maintenance of the swimming pool water.

29.2 Rules and regulations for bathers should be posted in a conspicuous place to inform patrons of the pool.

29.3 The bathing load limit must be observed by the management. The maximum number of bathers to be allowed in the pool at one time will depend on a number of factors, such as the type of pool, indoor or outdoor, location, surface area, operating characteristics of the water, purification system, quality of the pool water, etc., the significant factors being the pool area and the sanitary and physical condition of the pool water. (Refer to Sections 3.3 thru 3.5).

APPENDIX A

CHEMICAL OPERATIONAL PARAMETERS

These guidelines set forth the suggested operational parameters for the proper chemical treatment and maintenance of swimming pool waters. Except where specifically noted, they apply to indoor and outdoor pools, in-ground, on-ground and above-ground pools. However, above-ground pools usually require somewhat higher chlorine concentrations, more frequent superchlorination and more brushing or manual activity to maintain the proper pool water quality because of the larger bather-water ratio.

Chemical treatment alone will not produce perfect pool water. A suitable circulatory system in proper operational condition is also required to attain sparkling clear, polished sanitary swimming pool water.

	Minimum	Ideal	Maximum	Comments
1. Free chlorine, unstabilized	0.6	1.0	2.0	Note: Chlorine should be maintained at this level continually. Refers to gaseous chlorine and hypochlorite. Superchlorinate regularly. See #8 below.
2. Free chlorine, stabilized, ppm	1.0	1.5	2.0	Note: Chlorine should be maintained at this level continually. Superchlorinate regularly. See #8 below.
3. Combined chlorine, ppm	None	None	0.2	If combined chlorine is: **Too High** • Sharp chlorinous odors • Eye burn • Algal growth • Bacteria growth*
4. Bromine, ppm	0.8	1.0	3.0	Note: Health department officials must be consulted before use
5. Iodine, ppm	1.0	1.5	5.0 (includes all forms)	Note: Health department officials must be consulted before use. May discolor water. Ineffective against algae.
6. Superchlorination frequency	Monthly	When combined chlorine is 0.2 ppm or more	Weekly	Note: Public pools may need super chlorination three times a week or more.
7. Required superchlorination chlorine, ppm	5	10	-	
8. Required shock treatment chlorine, ppm	10	-	-	
9. pH	7.2	7.5	7.8	If pH is: **Too High**: Lower chlorine efficiency; Scale formation; Cloudy water; Increased chemical demand; Eye discomfort. **Too Low**: Rapid dissipation of chlorine; Plaster/concrete etching; Eye discomfort; Corrosion of metals

*Combined chlorine is eliminated by superchlorination

	Minimum	Ideal	Maximum	Comments
10. Temperature, °F	Bather preference	82	95	If temperature is: **Too Low** Bather discomfort **Too High** Excessive fuel requirement Increased evaporation Bather discomfort Increased scaling potential Increased use of chlorine
11. Stabilizer Cyanuric acid, ppm	30		150; except where limited by health department requirements often to 100 ppm	If stabilizer is: **Too Low** Chlorine residual rapidly destroyed by sunlight Under stabilized **Too High** Cloudy water May exceed health department regulations Note: Stabilizer is not needed in indoor pools.
12. Total alkalinity ppm as $CaCO_3$	80	100	200	If total alkalinity is: **Too Low** pH bounce Corrosion tendency **Too High** Cloudy water Increased scaling potential
13. Undissolved solids, ppm	None	None	None	If undissolved solids are: **Too High** Filter is not working properly Unsightly water
14. Dissolved solids, ppm	300	-	1500*	If dissolved solids are: **Too Low** Total alkalinity may be too low Stabilizer level may be too low **Too High** Chlorine may be less effective Scaling may occur Fresh water should be added Salty taste Dull water Chemical balance difficult to maintain
15. Hardness, ppm as $CaCO_3$	50	125	800	If hardness is: **Too Low** Plaster or concrete etching may occur Corrosion **Too High** Scaling may occur Water has bad "feel" Short filter runs

*This number is presently an approximation

	Minimum	Ideal	Maximum	Comments
16. Water turbidity, JTUs	0	0.5 or less	1.0	If water turbidity is: **Too High** Chlorine level may be too low Filtration system may be inoperative Too turbid water may lead to drowning because of reduced visibility
17. Algae	None	None	None	If algae are observed: Superchlorinate or shock treat pool Suplement with brushing and vacuuming Maintain adequate free chlorine residual Use approved algaecide according to label directions
18. Bacteria	None	None	Refer to local health code	If bacteria count exceeds Health Department requirements: Superchlorinate pool and follow proper maintenance procedures. Maintain proper free chlorine residual. The presence of bacteria indicates that the pool is not being maintained properly
19. Copper, ppm	None	None	0.3	If copper content is: **Too High** Staining may occur Water may discolor Chlorine dissipates rapidly by decomposition Filter may plug May indicate pH too low, corrosion etc.
20. Iron, ppm	None	None	0.2	If iron content is: **Too High** Staining may occur Water may discolor Chlorine dissipates rapidly Filter may plug
21. Floccing frequency	-	When needed	-	Note: Floc only to maintain water clarity and supplement filtration
22. Quaternary algaecides, ppm	1	3	5	Note: may not be permitted in public pools. Health Department officials should be consulted. Quats may be absorbed by the filter. Quats may create a chlorine demand. Ineffective to some algae. May cause foaming.
23. Mercury based algaecides, ppm	None	None	None	Note: Mercurials have been banned by EPA because of toxicity hazard.

	Minimum	Ideal	Maximum	Comments
24. Copper based algaecides, (nonchelated), ppm	0.1	0.2	0.3	Note: Ineffective against some algae. Health department officials should be consulted before using. May contribute to staining.
25. Copper based algaecides, (chelated), ppm	0.1	1.0	3.0	Note: See above
26. Silver based algaecide, ppm	0.5	1.5	3.0	Note: Precipitates with cyanuric acid Ineffective against some algae. Health department officials should be consulted before use.

APPENDIX B

POOL HEATER SIZING TABLES

POOL HEATER SIZING TABLES

A pool heater is used to raise and maintain the pool water at the temperature desired by the user. In selecting a heater size the time required to raise the pool to the desired temperature **may** be a consideration, but the amount of heat required to maintain the pool at the desired temperature is **always** a consideration.

A. The attached tables are designed to permit the selection of a heater which will **maintain** the pool at the desired temperature.

Experience has shown that once the pool has been brought up to the desired temperature, substantially all the heat lost from the pool is lost from the surface. It is both safe and practical to neglect the heat lost to the ground, and to select a heater size based only on surface losses.

In order to select the correct pool heater size for an outdoor pool it is necessary to ascertain the following information:

1. **The pool water temperature desired by the user.** If the user is uncertain, a pool water temperature of 78° may be assumed.
2. **The average temperature of the coldest month** in which the user intends to use the pool.
3. **The area surface of the pool** (in square feet).
4. **The average wind velocity in miles per hour.** For pools under 900 sq. ft. in built-up areas where the pool is sheltered by nearby fences, buildings or shrubs from the prevailing wind, an average wind velocity of 3-1/2 miles per hour may be assumed. For more exposed locations, or higher wind velocities, see footnote on Heat Loss Table.

With the above information in hand, consult the Heat Loss Table to obtain the heat loss from the pool surface. To select the proper heater size, the BTU **output** must equal or exceed this heat loss. To obtain heater **input** divide the output by the actual efficiency of the heater.

NOTES:

1. For indoor pools where the air temperature is little lower if any, than the water temperature, a heat loss factor of 100 BTUs/hr per square foot of pool surface may be used.
2. Experience has indicated that where a pool cover is used, applied close to or on the pool surface, heat losses will be reduced by 50% or more while the cover is in place.

B. If it is desired to raise the temperature in a given time period, the following formula may be used:

Heater output (BTU/hr) = Pool vol. (gal.) x temp. diff. (°F.) x 8.3 + 1/2 surface loss*

* See attached table.

HEAT LOSS FROM POOL SURFACE
BTU's Per Hour

Surface area of pool sq. ft.	TEMPERATURE DIFFERENCE [°F] Between Average Air and Desired Water Temperature							
	10°	15°	20°	25°	30°	35°	40°	50°
200	21,000	31,500	42,000	52,500	63,000	73,500	84,000	105,000
300	31,500	47,300	63,000	78,800	94,500	110,000	126,000	157,500
400	42,000	63,000	84,000	105,000	126,000	147,000	168,000	210,000
500	52,500	78,800	105,000	131,000	157,500	183,500	210,000	263,000
600	63,000	94,500	126,000	157,500	189,000	222,000	252,000	315,000
700	73,500	110,000	147,000	184,000	220,000	257,000	294,000	367,000
800	84,000	126,000	168,000	210,000	252,000	294,000	336,000	420,000
900	94,500	142,000	189,000	236,000	284,000	331,000	378,000	472,000
1,000	105,000	157,500	210,000	263,000	315,000	368,000	420,000	525,000
1,200	126,000	189,000	252,000	315,000	378,000	442,000	505,000	630,000
1,400	147,000	222,000	284,000	368,000	442,000	515,000	598,000	735,000
1,600	168,000	252,000	336,000	420,000	505,000	588,000	673,000	840,000
1,800	189,000	284,000	378,000	473,000	567,000	662,000	757,000	945,000
2,000	210,000	316,000	420,000	525,000	630,000	735,000	840,000	1,050,000
2,500	263,000	394,000	525,000	657,000	788,000	920,000	1,050,000	1,315,000
3,000	315,000	473,000	630,000	788,000	945,000	1,100,000	1,260,000	1,575,000
3,500	367,000	552,000	735,000	918,000	1,100,000	1,280,000	1,470,000	1,840,000
4,000	420,000	630,000	840,000	1,050,000	1,260,000	1,470,000	1,680,000	2,100,000
5,000	525,000	788,000	1,050,000	1,310,000	1,575,000	1,835,000	2,100,000	2,630,000
6,000	630,000	945,000	1,260,000	1,575,000	1,890,000	2,220,000	2,520,000	3,150,000
7,000	735,000	1,100,000	1,470,000	1,840,000	2,200,000	2,570,000	2,940,000	3,670,000
8,000	840,000	1,260,000	1,680,000	2,100,000	2,520,000	2,940,000	3,360,000	4,200,000
9,000	945,000	1,420,000	1,890,000	2,360,000	2,840,000	3,310,000	3,780,000	4,720,000
10,000	1,050,000	1,575,000	2,100,000	2,630,000	3,150,000	3,680,000	4,200,000	5,250,000
12,000	1,260,000	1,890,000	2,520,000	3,150,000	3,780,000	4,420,000	5,050,000	6,300,000
14,000	1,470,000	2,220,000	2,840,000	3,680,000	4,420,000	5,150,000	5,980,000	7,350,000
16,000	1,680,000	2,520,000	3,360,000	4,200,000	5,050,000	5,880,000	6,730,000	8,400,000

NOTE: These heat losses are based on an assumed wind velocity at the water surface of 3-1/2 m.p.h. For a velocity of 5 m.p.h., multiply these losses by 1.25, and for 10 m.p.h. multiply by 2.0.

APPENDIX C

DECK SLOPE RECOMMENDATIONS

Slopes to provide proper drainage may vary with the texture of the surface. Some recommended minimums would be:

Smooth hand finished concrete	1/8" per foot
Exposed aggregate concrete	1/4" per foot
Indoor/outdoor carpeting	3/8" per foot

APPENDIX D

POOL SERVICE AND OPERATIONS RECOMMENDATIONS

All owners, managers, operators, and other attendants in charge shall be responsible for the safety and sanitation of the pool. The following recommendations will help to serve as a guideline:

1. See that all rules and regulations affecting the users of the bathing place are properly enforced and posted.
2. Report to the operator or management any condition of the bathing place or equipment which may be detrimental to its efficient operation.
3. See that showers are used and are operating properly.
4. See that all persons with inflamed eyes, nasal or ear discharges, boils, ringworm, impetigo, foot infections, skin lesions, excessive sunburn, or any obvious skin condition that has the general appearance of being in an infectious state, are excluded from the pool.
5. See that all persons who are under the influence of an intoxicating liquor or drug, and all persons other than pool personnel who for any reason have bandages, adhesive tape, corn plasters, etc, that might conceal an infectious condition, are excluded from the shower rooms and pool area.
6. See that all doors to the bathing area are locked when the bathing area is not in use and when the water has been drained from the pool. In the latter case, post warning signs at all pool exits and entrances.
7. See that the pool is free from sediment and accumulations of lint and hair. See that the walls and bottom of the pool are free from dirt and discoloration and that the perimeter overflow trough and skimmers are clean and flushing properly. See that the bottom and sides of the bathing place are brushed or suction cleaned as often as necessary to keep the pool free of solids that settle as well as algae and slime growths.
8. See that walk areas, perimeter overflow troughs, counters, lockers, equipment, furniture, interior partitions, and walls are in good repair and are clean and free of visible dirt or accumulations occasioned by more than one day's use.
9. See that the floors of dressing rooms, shower stalls, and other interior rooms are scrubbed with a suitable disinfectant. More frequent attention to floors is recommended during periods of heavy use.

10. See that toilet rooms and fixtures are kept clean, sanitary, and in good repair. The words "clean and sanitary" refer not only to fecal material on water toilet seats, bowls, etc., but also to organic stains, to unnecessary articles on floors, and to the general sanitary condition of floors walls, windows, ceilings, partitions, etc. See that spectators and non-bathers are excluded from the toilet rooms provided for the persons using the pool facilities.

11. See that no food, drinks, smoking materials, paper, trash, debris, or any foreign substance are thrown or carried into the pool. No glass containers of any type may be used in or near the pool. Beverages should be dispensed in paper cups to avoid the hazard of broken glass. Waste containers for disposal of used cups, food wrappers, etc. shall be located at strategic and convenient points within the walk areas. Experience shows that most pool patrons respond by proper disposal of waste materials, leaving only relatively small quantities to be removed by the pool attendant.

12. Operate the pool equipment so as to maintain a clear and safe water and be responsible for maintaining the disinfectant residuals.

SWIMMING POOL AND BATHING BEACH REGULATIONS

Adopted by the
West Virginia
State Board of Health

EFFECTIVE MAY 1980

WEST VIRGINIA STATE BOARD OF HEALTH

CHAPTER 1, ARTICLE 6

SWIMMING POOL AND BATHING BEACH REGULATIONS

WEST VIRGINIA STATE BOARD OF HEALTH

CHAPTER 1, ARTICLE 6

SWIMMING POOL AND BATHING BEACH REGULATIONS

SECTION 1.0 GENERAL

1.1 SCOPE - This article amends and readopts Chapter 1, Article 6, "Swimming Pool and Bathing Beach Regulations." These Regulations establish the rules and minimum requirements of the West Virginia State Board of Health governing owners and operators of public swimming pools and bathing beaches.

1.2 AUTHORITY - The authority for these Regulations is provided under Chapter 16, Article 1, Public Health Laws, Code of West Virginia, 1931, as amended.

1.3 INITIAL FILING DATE - On November 7, 1979, as prescribed by Chapter 29A, Article 3, Section 8, of the Code, these Regulations were filed with the Secretary of State, with an attached notice of time, date, and place for opportunity to submit comments.

1.4 NOTIFICATION OF OPPORTUNITY TO SUBMIT COMMENTS - On December 17, 1979, at 7:00 P.M. in Morgantown and Beckley; and December 20, 1979, at 7:00 P.M. in Charleston, interested parties were given the opportunity to submit data, objections, suggested amendments, views, evidence, and arguments, either orally or in writing, as prescribed by Chapter 29A, Article 3, Section 8 of the Code.

1.5 FINAL ADOPTION - On January 16, 1980, the Regulations were adopted by the State Board of Health as prescribed by Chapter 29A, Article 3, Section 10, of the Code.

1.6 FINAL FILING - On April 11, 1980, the final version of the Regulations, as adopted by the State Board of Health, with the proposed effective date were filed in the state register, pursuant to Chapter 29A, Article 3, Section 10, of the Code.

1.7 GOVERNORS FILING - On April 14, 1980, as prescribed by Chapter 29A, Article 3, Section 7, of the Code, the Regulations were filed with the Governor.

1.8 LEGISLATIVE RULE MAKING COMMITTEE - On April 14, 1980, as prescribed by Chapter 29A, Article 3, Section 7, of the Code, the Regulations were filed with the Legislative Rule Making Committee for review.

1.9 EFFECTIVE DATE - On May 5, 1980, the Regulations became effective, as approved by the Legislative Rule Making Committee.

SECTION 2.0 DEFINITIONS

2.1 BATHING BEACH - A public bathing place located on a natural stream, pond or lake, or on an artificial pond or lake which is formed by impounding a natural water.

2.2 DIRECTOR - Director of the State Department of Health or his designee.

2.3 OPERATOR - A person responsible for the operation of a swimming pool, wading pool or bathing beach.

2.4 PERMIT - A written document issued by the Director giving a designated person permission to construct, alter or renovate a swimming pool, wading pool or bathing beach or to operate such facility.

2.5 PERSON - Individual, city, town, partnership, association, company, corporation, governmental corporation, institution, department, division, bureau, agency, apartment, motel, country club, camp, or any other entity recognized by law.

2.6 SWIMMING POOL - Any artificial basin, chamber, or tank used or intended to be used by the public for swimming, diving or recreational type bathing. It does not include baths where the main purpose is cleaning the body, nor individual type therapeutic tubs or tanks. Swimming pools are classified according to the following:

A. RECIRCULATION TYPE - A pool from which the water is withdrawn, treated, and returned to the pool.

B. FILL AND DRAW TYPE - A pool to which water is added, used for a period, then discarded.

C. FLOW THROUGH TYPE - A pool to which water is added continuously thereby replacing and causing water to overflow to waste.

2.7 WADING POOL - Any artificial basin, chamber, or tank constructed of an impervious material used or intended to be used by the public for wading, particularly by small children.

SECTION 3.0 PROHIBITED POOLS

3.1 On or after the effective date of these Regulations, no swimming or wading pool of the Fill and Draw type shall be permitted.

3.2 On or after the effective date of these Regulations, no swimming or wading pools of the Flow Through Type shall be constructed unless an assured continuous flow of an approved water is available to fill the pool in eight hours or less.

SECTION 4.0 SUBMISSION OF PLANS AND SPECIFICATIONS FOR CONSTRUCTION PERMIT

4.1 On or after the effective date of these Regulations, no person shall establish, construct or renovate any swimming pool, wading pool or bathing beach within the State of West Virginia without first obtaining a Construction Permit from the Director.

4.2 Four (4) sets of completed applications, plans and specifications shall be submitted to the Director for approval at least 45 days prior to the date on which a Construction Permit from the Director is desired.

4.3 An application for the Permit shall be made to the Director on forms prescribed by the Director and shall be accompanied by, but not limited to, vicinity and site plans, detailed construction drawings, water source and treatment details, and specifications concerning filtration, chlorination, testing equipment and any other pertinent factors necessary for a complete operative system.

4.4 In addition to meeting all applicable requirements of these Regulations, all swimming pools and wading pools constructed or renovated after the effective date of these Regulations shall be in accordance with the West Virginia State Department of Health Bulletin ER-33 "Design Standards For Swimming Pools."

4.5 A Permit may be suspended or revoked by the Director for failure to comply with any provisions of the Permit or these Regulations.

4.6 The Director shall deny a Permit if the information on the application form is incomplete, inaccurate, false or misleading, or indicates that the applicable provisions of these Regulations cannot be met.

SECTION 5.0 OPERATING PERMITS

5.1 After the date these Regulations become effective, no person directly or indirectly shall in any manner conduct, control, manage, maintain, or operate a swimming pool, wading pool or bathing beach in the State of West Virginia unless said person has in his possession a valid Operating Permit issued by the Director to operate such specific swimming pool, wading pool or bathing beach.

5.2 An application for an Operating Permit to operate a swimming pool, wading pool or bathing beach shall be made in writing to the Director on a form prescribed by the Director signed by the applicant or his authorized agent, and shall contain such information as may be requested by the Director to enable him to determine that the facility and its operation is in compliance with the applicable provisions of these Regulations.

5.3 The application for an Operating Permit shall be made at least 15 days before the actual or proposed operation of said swimming pool, wading pool or bathing beach is to be effected.

5.4 The Director shall deny a permit if the information on the application form is incomplete, inaccurate, false, or misleading, or indicates that the applicable provisions of these Regulations cannot be met.

5.5 Only persons who comply with the applicable provisions of these Regulations shall be entitled to receive and retain an Operating Permit.

5.6 Swimming pools, wading pools or bathing beaches in operation at the time these regulations become effective, and meeting all applicable prior regulations, shall be deemed to be eligible for a permit to operate, provided that any construction or installation taking place after the effective date of these Regulations shall be in compliance with all applicable provisions of these Regulations.

5.7 Swimming pools, wading pools or bathing beaches put into operation after the date these Regulations become effective shall comply in full with all applicable provisions of these Regulations.

5.8 Permits shall not be transferable or assignable and shall automatically become invalid upon a change of ownership or upon suspension or revocation.

5.9 In the event of an intended change or an actual change in ownership of a swimming pool, wading pool, or bathing beach, an application for an Operating Permit shall be made to the Director by the person concerned at least 15 days before the proposed or actual change is effected.

5.10 A Permit may be suspended or revoked by the Director if it is found that the swimming pool, wading pool or bathing beach is maintained or operated in violation of these Regulations, or any law, rule, or ordinance applicable thereto, or in violation of the conditions stated on the Permit.

5.11 An Operating Permit shall not be reinstated until an inspection by the Director determines that the swimming pool, wading pool or bathing beach is in compliance with all applicable provisions of these Regulations and any orders, rules or instructions issued by the Director.

5.12 Operational Permits shall be posted in a conspicuous place at the swimming pool, wading pool or bathing beach facility, and said Permit shall be readily available to the Director.

5.13 Any person whose application for an Operating Permit for a swimming pool, wading pool or bathing beach has been denied, or whose permit has been suspended or revoked may petition and shall be granted a hearing on the matter within 10 days after the Director has received a written petition for such hearing.

SECTION 6.0 INSPECTIONS

6.1 The owner, operator, or person in charge of a swimming pool, wading pool or bathing beach shall provide the Director with immediate access to the entire premises for the purpose of inspection, and shall furnish all requested and necessary information to make the inspection complete.

6.2 The Director shall conduct a minimum of two (2) complete inspections per year.

6.3 The Director shall have the authority to order changes relative to improving the operation and sanitary conditions of the swimming pool, wading pool or bathing beach and if deemed necessary, can immediately order the closing of such facilities until corrective changes have been made.

SECTION 7.0 WATER QUALITY REQUIREMENTS

7.1 Disinfection of all swimming pool and wading pool water is mandatory.

7.2 Chlorination of swimming and wading pools shall be accomplished by means of a continuously operated mechanical chlorinator. Hand batch feeding is prohibited.

7.3 Chlorination shall be practiced in swimming pools and wading pools so as to maintain a free available chlorine residual of 0.4 to 1.0 mg/l.

7.4 Cyanurate acid, when used as a stabilizer, must be maintained at a level between 30 and 100 mg/l.

7.5 When using chlorinated cyanurates or its chlorinated derivatives as disinfectants, a free chlorine residual shall be maintained between 1.0 and 3.0 mg/l.

7.6 Other disinfectants, registered by the United States Environmental Protection Agency, may be used with the approval of the Director.

7.7 Chemical Requirements

A. Swimming Pools - Chemical limits shall conform to the chemical limits specified in Chapter 1, Article 5, West Virginia Board of Health "Public Water Supply Regulations."

B. Bathing Beaches - Chemical limits shall conform to limits prescribed by Chapter 20, Article 5 Water Resources Board "Administrative Regulations of the State of West Virginia for Water Quality Criteria on Inter and Intra State Streams" for Category A, Water Contact Recreation Waters.

7.8 Bacteriological Requirements

A. To monitor bacteriological quality of swimming pools, wading pools and bathing beaches, samples shall be collected and submitted for bacteriological analysis by the Director.

B. The presence of the coliform group as indicated by the samples examined shall not exceed the following limits:

1. Swimming and Wading Pools

When 10 ml. standard portions are examined, not more than 10% in any one month shall show the presence of the coliform group. The presence of the coliform group in 3 or more 10 ml. portions of a standard sample will not be allowable if this occurs:

(a) In two consecutive samples;
(b) In more than one sample per month when less than 20 are examined per month.
(c) In more than 5% of the samples when 20 or more are examined per month.

When organisms of the coliform group occur in 3 or more of the 10 ml. portions of a single standard sample, daily samples from the same sampling point shall be collected promptly and examined until the results obtained from at least two consecutive samples show the water to be of satisfactory quality.

When the membrane filter technic is used, the arithmetic mean coliform density of all standard samples examined per month shall not exceed one per 100 ml. Coliform colonies per standard sample shall not exceed 3/50 ml., 4/100 ml., 7/200 ml., or 13/500 ml. in:

(a) Two consecutive samples;
(b) More than one standard sample when less than 20 are examined per month; or
(c) More than 5% of the standard samples when 20 or more samples are examined per month.

2. Bathing Beaches

The coliform group is not to exceed 1,000 per 100 ml. as a monthly geometric average value, nor exceed this number in 20 per cent of the samples examined during any month nor exceed 2,400 per 100 ml. on any day.

The fecal coliform (either MPN or MF count) shall not exceed 200 per 100 ml. as a 30 day geometric mean based on not less than five (5) samples during any 30 day period nor exceed 400 per 100 ml. in more than ten percent (10%) of all samples during any 30 day period.

7.9 pH Control

A. Swimming pools and wading pool - The pH shall be maintained in an alkaline condition as indicated by

a pH of not less than 7.2 nor greater than 7.8 at any time the facility is in use.

B. Swimming pools and wading pools which are equipped with gaseous chlorination feeders, must be equipped with a mechanical chemical feeder to continuously control pH. Hand batch feeding into the pool is prohibited.

C. Bathing beaches - When the pH is less than 6.5 or greater than 8.5 the beach shall not be used for bathing.

SECTION 8.0 CONTROL TESTS AND OPERATIONAL RECORDS

8.1 All swimming pools and wading pools shall have available at all times, approved testing equipment for making pH, free chlorine residuals, and any other tests as considered necessary by the Director.

8.2 Written results of the tests listed under subsection 8.1, attendance data, number of hours of equipment operation, and any other information as required by the Director shall be maintained by the operator for a period of at least one year.

8.3 Weekly, or as otherwise directed by the Director, the operator of a swimming pool, wading pool, or bathing beach shall submit to the Director on forms prescribed by or approved by the Director, a summary of operation and tests.

8.4 Tests to determine the pH, free chlorine residual, and any other parameters, as directed by the Director, shall be conducted by a qualified operator of a swimming pool or wading pool at least twice daily, and the results recorded on the operating report.

SECTION 9.0 SUPERVISION OF BATHERS

9.1 An operator shall be on duty at all times the swimming pool, wading pool or bathing beach is open for swimming.

9.2 The swimming pool, wading pool or bathing beach operator shall be in full charge and have the authority to exclude from the premises any person who does not abide by the safety and sanitation rules which shall include but not limited to:

A. Spitting, spouting of water, blowing of nose, urination and defecation in the swimming pool, wading pool or bathing beach water shall be strictly prohibited.

B. Persons having any infectious or communicable disease or open sores shall be excluded from using the swimming pool, wading pool or bathing beach.

C. All bathers shall shower before entering the swimming pool or wading pool.

SECTION 10.0 SAFETY REQUIREMENTS

10.1 Swimming pool and bathing beaches shall have one unit of life saving equipment for each life guard station which shall be readily accessible for emergency use. Pools without lifeguards shall have a minimum of one unit of life saving equipment available. All equipment shall be kept in good repair.

10.2 Every pool and bathing beach shall be equipped with a standard American Red Cross 24-unit first aid kit or equivalent type kit which shall be kept stocked and ready for use.

10.3 The Director shall prescribe the number of life guards required at any pool or bathing beach.

10.4 Telephone service shall be available at the pool or bathing beach and emergency phone numbers for rescue agencies shall be posted.

SECTION 11.0 ROUTINE MAINTENANCE AND OPERATION

11.1 Visible debris on the bottom of the pool shall be removed every 12 hours or more frequently as required.

11.2 Visible scum or floating matter on the water surface shall be removed as frequently as required.

11.3 Deck areas, sidewalks and other areas around the pool and bath house shall be hosed and brushed as required to keep them clean.

11.4 Bath house dressing rooms, showers, and toilet areas shall be kept in a clean condition.

11.5 All pools shall be drained as necessary so that the pool can be inspected, cleaned and/or repaired.

11.6 Swimming pool water treatment facilities shall be operated 24 hours per day.

SECTION 12.0 BATH HOUSES, CONCESSIONS AND OTHER APPURTENANT FACILITIES

12.1 Bath house, clothing storage facilities, toilet and shower facilities shall be kept in good repair and in a clean and sanitary condition.

12.2 All doors, shower curtains, windows, faucets, drains, or other parts of the building, including plumbing, electrical switches, lighting and controls, shall be kept in good repair and replaced immediately if defective.

12.3 All concession stands shall be operated in accordance with Chapter 1, Article 3, West Virginia Board of Health "Food Service Sanitation Regulation."

SECTION 13.0 COMPLIANCE REQUIREMENTS

13.1 The design, construction, installation, alteration, location, and operation of all public swimming pools, wading pools and bathing beaches shall comply with all applicable provisions of these Regulations.

13.2 The Director shall have the authority to immediately close any swimming pool, wading pool, or bathing beach which he determines to be unsafe, has not been approved by the Director, or have willfully violated any provisions of these Regulations.

13.3 If any inspection or prescribed water quality test conducted on any pool by the Director discloses excessive turbidity (as determined by using a standard clarity sight disc) or a chlorine residual less than that permitted under Sections 7.3 and 7.5 of these Regulations, the Director shall have the authority to immediately close the swimming pool or wading pool until such time as the necessary corrections are effected.

SECTION 14.0 REPEAL OF FORMER REGULATIONS

All regulations previously adopted by the West Virginia Board of Health which are in conflict with the provisions of these Regulations are hereby repealed.

SECTION 15.0 SEVERABILITY

Each section of these Regulations and every part of each Section is an independent Section and a part of a Section, and the holding of any Section or part thereof to be unconstitutional, void, or ineffective for any cause does not affect the validity or constitutionality of any other Section or part thereof.

SECTION 16.0 PENALTIES

Any person who violates any provision of these Regulations or orders issued pursuant thereto shall be punishable by a fine of not more than two hundred dollars or imprisonment for not more than thirty days, or both, as provided under Chapter 16, Article 1, Section 18 of the Public Health Laws of West Virginia, West Virginia Code.

SECTION 17.0 CERTIFICATION AND FILING OF THE REGULATION

I hereby certify that the foregoing Regulations constitute the official Regulations adopted by the State Board of Health on January 16, 1980, and filed pursuant to law in the Office of Secretary of State, State of West Virginia.

George E. Pickett, M.D.
Director of Health

Acknowledgement, that the above Regulations were filed with the Office of Secretary of State on April 11, 1980.

A. James Manchin
Secretary of State

FILED IN THE OFFICE OF
SECRETARY OF STATE OF
WEST VIRGINIA

THIS DATE 5-19-80