# RULE 1

# Pool Dimensions and Equipment

## SECTION 1. Pool Dimensions [recommended] Long-Course Swimming

- ARTICLE 1. a. For facilities (those with architectural plans dated after September 1, 1996), it is preferred that the racing course be 50 meters, [164 ft. .50 in.] in length by 75 feet [22.86 m] in width, providing for eight, 9-foot [2.74 m] lanes with additional width outside lanes one and eight. A minimum water depth of 7 feet [2.13 m] is desirable for optimal competitive conditions. Optional markings: nine, 8-foot [2.44 m] lanes or 10, 7-foot [2.13 m] lanes.
- b. For existing facilities, it is acceptable that the racing course be 50 meters [164 ft. .50 in.] in length by 60 feet [18.29 m] in width, providing for eight, 7-foot [2.13 m] lanes with additional width outside lanes one and eight. The water depth shall not be less than 4 feet [1.22 m] at the starting end of the racing course and should not be less than 3.5 feet [1.07 m] at the opposite end. However, a water depth of not less than 4 feet [1.22 m] is recommended throughout the entire length of the racing course.

## **Short-Course Swimming**

ARTICLE 2. a. For facilities (those with architectural plans dated after September 1, 1996), it is preferred that:

- 1. For short-course yards, the racing course be 75 feet [22.86 m] in length by at least 60 feet [18.29 m] in width, providing for not less than eight, 7-foot [2.13 m] lanes with additional width outside lanes one and eight. A minimum water depth of 7 feet [2.13 m] is desirable for optimal competitive conditions.
- 2. For short-course meters, the racing course be 25 meters, [82 ft. .25 in.] in length by at least 60 feet [18.29 m] in width, providing for eight, 7-foot [2.13 m] lanes with additional width outside lanes one and eight. A minimum water depth of 7 feet [2.13 m] is desirable for optimal competitive conditions.
- b. For existing facilities, it is acceptable that:
  - 1. For short-course yards, the racing course be 75 feet [22.86 m] in length by 30 feet [9.15 m] in width, providing for at least five, 6-foot [1.83 m] lanes. The water depth shall not be less than 4 feet [1.22 m] at the starting end of the racing course and should not be less than 3.5 feet [1.07 m] at the opposite end. However, a water depth of not less than 4 feet [1.22 m] is recommended throughout the entire length of the racing course.

2. For short-course meters, the racing course be 25 meters, [82 ft. .25 in.] in length by at least 30 feet [9.15 m] in width, providing for at least five, 6-foot [1.83 m] lanes. The water depth shall not be less than 4 feet [1.22 m] at the starting end of the racing course and should not be less than 3.5 feet [1.07 m] at the opposite end. However, a water depth of not less than 4 feet [1.22 m] is recommended throughout the entire length of the racing course.

#### **Dimensional Tolerance**

ARTICLE 3. Against the required length, a tolerance of plus (+) 0.03 meters (1 and 3/16ths of an inch) in a vertical plane is permitted.

## Diving

- ARTICLE 4. a. For facilities (those with architectural plans dated after September 1, 1996), it is preferred that the diving facility be 60 feet [18.29 m] in length by 75 feet [22.86 m] in width. It should be equipped with two, one-meter and two, three-meter springboards and a diving tower, providing takeoff platforms at 5, 7.5 and 10 meters. Recommended dimensions for diving facilities are specified on this page and the following pages.
- b. For existing facilities, it is acceptable that the diving facility be separated from or incorporated with the swimming pool. Recommended dimensions for diving facilities are specified on this page and the next.

Note: The above dimensions may be incorporated in "L," "T," "Z" and "U" shaped pools.

NCAA Recommended		Dimensions	5	SPRINC	GBOARD		PLATFORM						
		are in Feet	1 meter		3 meters		5 meters		7.5 meters		10 meters		
Dimensions for		LENGTH	16'		16'		20'		20'		20'		
Diving Facilities		WIDTH	1'8"		1'8"		8'6" 9'10"	(min) (pref)	6'7" 9'10"	(min) (pref)	9'10"		
Revised October 1, 2013		HEIGHT	3'4"		9'10"		16'5"	· · · -	24'8"	<u> </u>	32'10"		
			Horiz.	Vert.	Horiz.	Vert.	Horiz.	Vert.	Horiz.	Vert.	Horiz.	Vert.	
А	From plummet BACK TO POOL WALL	Designation	A-1		A-3		A-5		A-7.5		A-10		
		Minimum	5'		5'		4'2"		4'2"		5'		
		Preferred	6'1"		6'1"		4'2"		4'2"		5'		
A/A	From plummet BACK TO PLATFORM plummet directly below	Designation					A/A5		A/A7.5		A/A10		
		Minimum					2'6"		2'6"		2'6"		
		Preferred					4'2"		4'2"		4'2"		
В	From plummet to POOL WALL AT SIDE	Designation	B-1		B-3		B-5		B-7.5		B-10		
		Minimum	8'3"		11'6"		11'2"		14'10"		18'11"		
		Preferred	8'3"		11'6"		12'10"		15'7"		18'11"		
С	From plummet to ADJACENT PLUMMET	Designation	C-1		C-3-3, 3-1		C-5-3,5-1		C-7.5-5,3,1		C-10-7.5,5,3,1		
		Minimum	6'7"		7'3"		7'11"		9'1"		10'8"		
		Preferred	7'1"		8'3"		8'9"		9'1"		10'8"		
D	From plummet to POOL WALL AHEAD	Designation	D-1		D-3		D-5		D-7.5		D-10		
		Minimum	29'7"		33'8"		33'8"		36'2"		44'4"		
		Preferred	29'7"		33'8"		33'8"		36'2"		44'4"		
E	On plummet from BOARD TO CEILING	Designation		E-1		E-3		E-5		E-7.5		E-10	
		Minimum		16'5"		16'5"		10'8"		10'8"		13'2"	
		Preferred		16'5"		16'5"		11'6"		11'6"		16'5"	
F	CLEAR OVERHEAD behind and each side of plummet	Designation	F-1	E-1	F-3	E-3	F-5	E-5	F-7.5	E-7.5	F-10	E-10	
		Minimum	8'3"	16'5"	8'3"	16'5"	9'1"	10'8"	9'1"	10'8"	9'1"	13'2"	
		Preferred	8'3"	16'5"	8'3"	16'5"	9'1"	11'6"	9'1"	11'6"	9'1"	16'5"	

#### **Tower Recommendations**

#### RULE 1 / POOL DIMENSIONS AND EQUIPMENT

G	CLEAR OVERHEAD ahead of plummet	Designation	G-1	E-1	G-3	E-3	G-5	E-5	G-7.5	E-7.5	G-10	E-10	
		Minimum	16'5"	16'5"	16'5"	16'5"	16'5"	10'8"	16'5"	10'8"	19'9"	13'2"	
		Preferred	16'5"	16'5"	16'5"	16'5"	16'5"	11'6"	16'5"	11'6"	19'9"	16'5"	
н	DEPTH OF WATER at plummet (minimum required)	Designation		H-1		H-3		H-5		H-7.5		H-10	
		Minimum		11'2"		12'2"		12'2"		13'6"		14'10"	
		Preferred		11'6"		12'6"		12'6"		14'10"		16'5"	
J-K	DISTANCE AND DEPTH ahead of plummet	Designation	J-1	K-1	J-3	K-3	J-5	K-5	J-7.5	K-7.5	J-10	K-10	
		Minimum	21'4"	10'10"	24'8"	11'10"	23'10'	11'10"	31'10"	13'2"	41'	14'	
		Preferred	22'4"	11'2"	25'7"	12'2"							
L-M	DISTANCE AND DEPTH each side of plummet	Designation	L-1	M-1	L-3	M-3	L-5	M-5	L-7.5	M-7.5	L-10	M-10	
		Minimum	5'	10'10"	6'7"	11'10"	9'11"	11'10"	12'4"	13'2"	14'10"	14'	
		Preferred	6'7"	11'2"	8'3"	12'2"	11'6"	12'2"	14'10"	14'6"	17'3"	15'7"	
N	MAXIMUM SLOPE TO REDUCE DIMENSIONS beyond full requirements	Pool depth	30 de	grees	Note 1: Dimensions C (plummet to adjacent plummet)							et)	
		Ceiling Ht.	30 de	grees	apply	for platf	orms with widths as detailed. For wider						
					platto	platforms increase C by half the additional with					width(s).		
					INOTE 2: All dimensions rounded up, even if only fractionally								
					greater than the next lowest inch.								



11



# **SECTION 2. Pool Dimensions [required]**

## **Starting Depth**

ARTICLE 1. For all championships and nonchampionships competition, the water depth shall be not less than 4 feet [1.22 m] at the starting end of the racing course.

## Number of Lanes

ARTICLE 2. All championships swimming competition shall be conducted in racing courses having a minimum of six, 6-foot [1.83 m] lanes. It is recommended that the racing course have a minimum of eight, 6-foot lanes.

## **Standard Length**

ARTICLE 3. All championships swimming competition shall be conducted in racing courses of standard length (75 feet, 25 meters or 50 meters). When automatic officiating equipment touch pads are used at one or both ends, the course shall be of such length that ensures the required distance between the two touch pads or between either pad and the opposite end of the course.

## **Plummet Depth**

ARTICLE 4. For all championships and nonchampionships springboard and platform diving competition, the water depths at the plummet shall be not less than the minimum standards specified in the table on Page 11.



## **SECTION 3. General**

#### **Facility Adaptations**

ARTICLE 1. It is recommended that temporary facility adaptations be made to improve meet conditions for all contestants. Attention should be given to consistency in pool markings, and turning and starting surfaces. Facility adaptations by the visiting team must be approved by the host coach and must comply with the rules.

#### End Walls

ARTICLE 2. The end walls of the racing course shall be perpendicular to the racing course and parallel to each other. They shall be vertical to a water depth of not less than 4 feet [1.22 m] at the starting end and should not be less than 3.5 feet [1.07 m] at the opposite end. The end walls shall establish the length of the racing course (see Rules 1-1 and 1-2). There shall be no protrusions, light fixtures, underwater windows or inlets in the end walls for a depth of at least 3.5 feet [1.07 m] below the level of the perimeter overflow rim. The end walls should be finished with a nonslip surface. These specifications also shall apply to movable bulkheads, which shall be designed and installed so as to prevent distortion by the tension exerted when racing lanes are in place.

If a continuous recessed hand grip is provided at or near the water surface in a wall or bulkhead, the horizontal dimension of the recess perpendicular to the wall or bulkhead should be not less than 6 inches [.15 m] and designed in a manner to avoid contact between the swimmers' fingers and the back surface of the recess.

#### Deck

ARTICLE 3. The deck of the pool should be not more than 12 inches [30.48 cm] above the surface of the water. Deck space on the diving end should permit sufficient space for installation of all diving equipment and additional area for the free movement of competitors and officials. It is recommended that 15 feet [4.57 m] of deck area be provided at both ends of the pool. The width of side decks must be governed by usage anticipated. It is recommended that a minimum of 3 feet [.914 m] be established for officials. If this space is to be used for movable spectator bleachers or other seating, it must be wide enough to accommodate such seating plus sufficient area for free movement of competitors and officials.

It is recommended that the maximum amount of space be allocated for spectator seating. If sufficient gallery space is allotted, side-deck width may be limited to 10 feet [3.05 m].

## Ladders

ARTICLE 4. All ladders, steps or stairs should be recessed in the side pool walls or be easily removable during competition.

## Lighting

ARTICLE 5. It is important that sufficient overhead lighting be installed with concentration directly over both the turning and finish lines. One hundred (100) foot-candles [1,076 lux] at water level is recommended. Underwater lights may be installed at the sides and at the ends. End lights should be located under lane-line anchors at a depth of 3.5 feet [1.07 m] with a switch for each light. A power source for additional lighting should be available for use with television, movies and special events. Buildings housing indoor pools should not have deck-level windows in walls facing pool ends. Deck-level windows on the side walls should be the tinted type, which reduce glare and reflection on the water surface.

## **Pool Markings**

ARTICLE 6. Lines should be placed on pool bottoms to serve as guides for each swimmer, and the color of these lines (preferably black) should contrast the general color of the pool. Such lines should be at least 12 inches [30.48 cm] wide and should be placed approximately in the center of each swimming lane. As these lines approach the end of the pool, it is recommended that distinctive "T" markings be placed on the bottom as per the diagram on Page 14. It is recommended that identical target lines 12 inches [30.48 cm] wide be placed on each pool end wall or electronic contact pad, in the approximate middle of each lane, extending from the top to at least 3.5 feet [1.07 m] below the water surface (see diagram on Page 13). The top edge of deck-level pools must be marked with a contrasting color to provide a visual target at the end of the pool. In existing pools where target lines are not present, each end wall must have visible target lines 12 inches [30.48 cm] wide or turning pads so marked. Failure to provide such markings will result in forfeiture of the meet by the host institution. An exception may be allowed where stainless steel gutters overlap the turning target, so long as the overlap does not exceed 18 inches [45.72 cm]. A fixed mark shall be placed on any wall adjacent to an outside lane to correctly align the 15-meter buoys for judging underwater starts/turn distances. The mark on the wall will be considered the default marking for officiating purposes.

Where practical, lanes should be numbered from right to left as the swimmer stands facing the course. Each lane should be clearly marked so it may be identified easily by finish judges stationed on the sides of the pool.

## **15-Meter Marks**

ARTICLE 7. The location of unobstructed sight lines, parallel to and 15 meters [49 ft. 2.55 in.] from each end of the racing course, must be clearly designated and visible to both officials and competitors. When lane lines are such that they are used for two different courses (i.e., 25 yards and 50 meters), markings must be of different colors to distinguish between such course markings.

ARTICLE 8. Starting platforms are required for championships meets and for dual meets. Starting platforms shall be installed so as to be stable at all times without human aid.

The front edge of the starting platform shall not exceed 30 inches [76.20 cm] in height above the surface of the water and shall not extend over the water beyond the end of the racing course. The length of the starting platform should not be less than 20 inches [50.80 cm] and may not be more than 34 inches [86.36 cm]. The width of the platform should not be less than 20 inches [50.80 cm]. The top of the platform must be a plane surface, and the maximum slope of that surface toward the water shall not be more than 10 degrees horizontal. The top must be covered with a nonslip material. The lane number should be visible from all sides of the platform. Firm starting grips for backstroke starts must be provided. These grips shall be located not more than 30 inches [76.20 cm] above the surface of the water. They shall not extend over the water beyond the end of the racing course.

Track style starting blocks with wedges are permitted. In meets requiring relay judging platforms (RJP's), such starting blocks must accommodate these platforms.

#### **Overflow System**

ARTICLE 9. The overflow system is a method of conveying water beyond the perimeter overflow rim of the pool. It should guarantee that the level of the water in the pool is not lower than the overflow rim of the pool at all times. It should maintain a smooth, quiet surface in the pool during competition. It should prevent the accumulation or overflow of pool water onto the deck area where meet officials work. It should effectively skim the water surface at all times.

#### **Backstroke Flag-Line Anchors**

ARTICLE 10. Permanent provision must be made to anchor backstroke flag lines with minimum sag. At least three pennants must be evenly spaced left, right and center in each lane located 5 yards from each end of a 25-yard racing course [5 meters from each end of a 25- or 50-meter racing course] and approximately 7 feet [2.13 m] above the water surface.

These pennants should be 6 to 12 inches [15.24 to 30.48 cm] in width and 12 to 18 inches [30.48 to 45.72 cm] in length. In any event in which the backstroke is swum, failure to provide these pennants shall result in disqualification of the host competitors. It is recommended that the pennants contrast the ceiling and the remainder of the pool environment to ensure proper safety to the swimmers in the water.

#### Lane-Line Anchors—Floats

ARTICLE 11. Permanent provision should be made to anchor lane lines at the competitive water level in a recessed receptacle. Tightly stretched, easily visible floating lane markers, with floats joining to form a continuous cylinder marking the lateral limits of each lane, should be provided for dual meets and must be available for championships meets. It is recommended that the last 15 feet [4.57 m] at each end of the lane line be a contrasting color with the remainder of the lane. It also is recommended that a marker be placed at the 15-meter mark.

#### Water and Air Temperatures

ARTICLE 12. The water temperature should be between 79 and 81 degrees Fahrenheit [26° and 27°C] for competition. When possible, the air temperature at deck level shall not be more than four degrees Fahrenheit below the water temperature. It is recommended that in separate diving pools the water should be between 82 and 86 degrees Fahrenheit [28° and 30°C] for competition. Special consideration also should be given to heating and ventilation for the comfort of spectators and competitors.

## **SECTION 4. Equipment**

## **Diving Boards**

- ARTICLE 1. a. The diving boards should be 1 meter and 3 meters, respectively, above the water level at the tip end. They should be 16 feet [4.87 m] long by 20 inches [50.80 cm] wide with the entire length of the upper surface covered with adequate nonslip material.
- b. The front end of each board should project at least 5 feet [1.50 m] beyond the end of the pool. Clearance from the plummet to the pool wall at the side should be at least 8.25 feet [2.51 m] for a one-meter board and at least 11.50 feet [3.50 m] for a three-meter board. The distance from plummet to plummet should be at least 6 feet 7 inches [2.00 m] between two one-meter boards and at least 7 feet 3 inches [2.20 m] between two three-meter boards or between a one-meter board and a three-meter board. Guard rails are recommended for three-meter springboards. In all cases, guard rails should extend over the water's edge.
- c. It is required that all diving equipment be installed and maintained to conform to regulations, especially those governing elevation and pitch. The water shall be at least 11 feet 2 inches [3.40 m] deep for one-meter boards and 12 feet 2 inches [3.70 m] deep for three-meter boards.
- d. The diving board must be installed so that the board is level at the end over the water when the fulcrum is at the midpoint along the track.
- e. In all diving championships, diving equipment approved by the meet committee must be used; and a fulcrum of a type readily adjustable by mechanical means between dives is required for both one-meter and three-meter standards. Equipment used in dual meets should meet these same standards. The fulcrum should be adjustable at least 2 feet [0.61 m] forward from a point 5 to 6 feet [1.52 to 1.83 m] from the rear end of the board, where practical.

## Water Agitation for Diving

ARTICLE 2. It is recommended that some type of water-surface agitation be installed for a zone centered on the longitudinal axis of each diving board or platform, 2 feet [0.61 m] wide and extending 5 feet [1.52 m] from the front edge of the board or platform. Surface agitation may be by underwater air bubblers or above-water spray. Air bubblers should be installed flush with the finished pool bottom with openings of one-fourth inch [0.64 cm] or smaller.

## Automatic Judging and Timing Equipment

ARTICLE 3. a. An automatic device is one that automatically starts with the starter's signaling device and stops when a competitor touches the finish pad. A semiautomatic device automatically starts with the starter's signaling device or manually, and stops when one or more officials press a button switch. Both timing and judging systems shall be accurate to one-hundredth of a second. All other data shall be disregarded. Any equipment that is installed must not interfere with the swimmers' starts or turns, or with the function of the overflow system.

- b. This equipment must:
  - 1. Meet acceptable safety standards.
  - 2. Be able to display all recorded information for each lane in printed form.
  - 3. Provide easy reading of a competitor's time (digital readings are recommended).
- c. Each finish pad for this equipment shall be as follows:
  - 1. *Size*—It is recommended that the finish pad be a minimum of 6.5 feet [1.98 m] wide by 2 feet [0.61 m] in depth for pools with lanes 7 feet [2.13 m] wide. It is further recommended, but not required, that in pools with lanes other than 7 feet [2.13 m] in width, the pad should be not more than 6 inches [15.24 cm] narrower than the width of the lane.
  - 2. *Tolerance*—The thickness of the pad should not exceed one-half inch [1.27 cm], and when installed, the pool length must not be less than 75 feet [22.86 m]. (See Rules 1-1-2-a-1, 1-1-2-b-1 and 1-1-3.)
  - 3. *Position*—The pad must be located in the center of the lane and be positioned at or below the water level during the progress of the race. The pad must be installed in such a manner as to assure a fixed position for the finish of a race.
  - 4. *Installation*—The pad should be installed so as to be secure when in place, but easily and quickly removable when there is no competition.
  - 5. Markings—The markings on the pad should conform with and superimpose on the existing markings of the pool. The perimeter and edges of the pad will be designated by a 1-inch [2.54 cm] black border.
  - 6. *Sensitivity*—The sensitivity of the pad must be such that it cannot be activated by water turbulence but will be activated by a light hand touch. The pad should be sensitive on both the top edge and front of the touchpad.
  - 7. *Safety*—The pad must be safe from the possibility of electrical shock and must have no sharp edges.
  - 8. *Surface*—The pad should be finished with a nonslip surface.
- d. Optional accessories that are desirable but not essential for a minimum installation:
  - 1. Printout of all information. 6. Cos
    - 6. Computer summaries.
    - Correction of erroneous touch.
      Automatic rechargeable battery operation possibility.
  - Spectator readout board.
    Relay takeoff judging.
  - 4. Automatic lap counter.
  - 5. Readout of splits.
- 9. TV tie-in system.

*Note: Appropriate below-deck conduits should be provided to accommodate wiring for electronic starting, timing and judging devices.* 

## **Electronic Relay Takeoff Judging Equipment**

ARTICLE 4. a. An electronic relay takeoff judging device is one that compares the time at which the second, third or fourth member of a relay team leaves a

takeoff pad on a starting platform with the time at which the previous member of that relay team completes a leg of the race by activating a finish pad in the water below.

- b. This equipment must:
  - 1. Be capable of disregarding extraneous movements on top of the starting platform so that the release from only the final foot of the swimmer on the platform establishes the time at which that swimmer leaves the platform.
  - Be able to display, in printed form for each lane, the difference in time between the takeoff release above and the finish touch below so that a negative (-) difference indicates an alleged rules violation and a positive (+) difference indicates an alleged legitimate relay exchange.
  - 3. Be accurate to one-hundredth of a second; however, it should not record as an alleged violation any infraction of the takeoff rule that is less than one-hundredth of a second.
  - Not have any exposed wires on the deck, must be safe from the possibility of electrical shock, must have no sharp edges and must meet all appropriate safety standards.
- c. Each takeoff pad for this equipment shall be as follows:
  - 1. *Size*—The takeoff pad should cover the entire top of the starting platform. The sensitized portion of the pad must extend to and be centered along the front edge of the platform and should not be less than 18 inches [45.72 cm] wide by 12 inches [30.48 cm] long. The takeoff pad may be any thickness; however, when it is installed, it shall be considered to be part of the starting platform, which must conform to Rule 1-3-8.
  - 2. *Surface*—The top and front surfaces of the takeoff pad must be covered with a nonslip material.
  - 3. *Markings*—If there is any nonsensitized area on the top of the takeoff pad, the sensitized and nonsensitized areas should be designated by contrasting colors.
  - 4. *Installation*—The takeoff pad should be installed so as to be secure when in place, but easily and quickly removable when there is no competition.

## Counters

ARTICLE 5. Visual counters shall be provided by the host institution. Each digit must be 12 inches [30.48 cm] high and must be black on a white background. Each set of counters should be equipped with one indicator of fluorescent orange color, with or without a numeral, to indicate the final length of each distance event. Failure to provide visual counters shall result in the disqualification of the host competitors in the events in which counters are required.

## Scoreboard

ARTICLE 6. A scoreboard of adequate size should be installed in such position that spectators and competitors may follow the progress of the meet.

## **Public Address Systems**

ARTICLE 7. Public address capability should be provided at separate stations for the announcer, referee, diving referee and starter. The announcer, referee and diving referee may all be on one system, which should be designed to be heard clearly in all parts of the natatorium. The starter should be on a separate system

that is designed specifically to provide clear and simultaneous instructions at each of the starting platforms.

#### **New Equipment**

ARTICLE 8. The NCAA Men's and Women's Swimming and Diving Rules Committee is responsible for formulating the official playing rules for the sport. The committee may establish and/or use independent sources for testing/control.

Equipment or swimsuit manufacturers have undertaken the responsibility for the development of playing equipment that meets specifications established by the committee. The NCAA urges manufacturers to work with the various independent testing agencies to ensure the production of safe products. Neither the NCAA nor the NCAA Men's and Women's Swimming and Diving Rules Committee certifies the safety of any swimming equipment. Only equipment or swimsuits that meet the specifications stated in the NCAA Men's and Women's Swimming and Diving Rules may be used in intercollegiate competition.

While the committee does not regulate the development of new equipment or swimsuits, the committee may provide manufacturers with informal guidelines as to the equipment-performance levels it considers consistent with the integrity of the sport. The committee reserves the right to intercede in order to protect and maintain that integrity.

The NCAA Men's and Women's Swimming and Diving Rules Committee suggests that manufacturers planning innovative changes in swimming or diving equipment or swimsuits submit the equipment or swimsuit to the NCAA Men's and Women's Swimming and Diving Rules Committee for review before production.