

Burgos, Alexander N

Subject: FW: Commission for Public Health-Request for Changes

From: Wiggs, Travis C <travis.wiggs@oah.nc.gov>
Sent: Wednesday, March 20, 2024 3:44 PM
To: Niehaus, Virginia <virginia.niehaus@dhhs.nc.gov>
Cc: Burgos, Alexander N <alexander.burgos@oah.nc.gov>
Subject: RE: Commission for Public Health-Request for Changes

Thank you for letting us know.

Alex, will you please send the listed people a Webex invite?

Thanks,

Travis C. Wiggs
Rules Review Commission Counsel
Office of Administrative Hearings
Telephone: 984-236-1929
Email: travis.wiggs@oah.nc.gov

From: Niehaus, Virginia <virginia.niehaus@dhhs.nc.gov>
Sent: Wednesday, March 20, 2024 3:38 PM
To: Wiggs, Travis C <travis.wiggs@oah.nc.gov>
Cc: Burgos, Alexander N <alexander.burgos@oah.nc.gov>
Subject: RE: Commission for Public Health-Request for Changes

Hi Travis,

I have submitted the rules. I am planning to attend in person next Wednesday.

Please also send a Webex invitation to the following individuals:

virginia.niehaus@dhhs.nc.gov
hhemingway@ncdoj.gov
larry.michael@dhhs.nc.gov
jon.fowlkes@dhhs.nc.gov
shane.smith@dhhs.nc.gov

Thank you,
Virginia

Virginia R. Niehaus, JD, MPH
Director of Regulatory and Legal Affairs
Division of Public Health
[NC Department of Health and Human Services](#)
Pronouns: she/her/hers

Executive Assistant: [Michelle Zarate](#)

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From: Wiggs, Travis C <travis.wiggs@oah.nc.gov>
Sent: Wednesday, March 20, 2024 3:16 PM
To: Niehaus, Virginia <virginia.niehaus@dhhs.nc.gov>
Cc: Burgos, Alexander N <alexander.burgos@oah.nc.gov>
Subject: RE: Commission for Public Health-Request for Changes

Virginia,

Thank you for making the requested change.

As mentioned, please submit the revised rules via email to oah.rules@oah.nc.gov no later than 5pm on March 22, 2024. The electronic copy must be saved as the official rule name (XX NCAC XXXX). Please include me on the email.

Are you or a representative from your agency planning to attend the RRC meeting next Wednesday?

Thanks,

Travis C. Wiggs
Rules Review Commission Counsel
Office of Administrative Hearings
Telephone: 984-236-1929
Email: travis.wiggs@oah.nc.gov

Burgos, Alexander N

Subject: FW: Commission for Public Health-Request for Changes
Attachments: 15A NCAC 18A .2518-revised.docx

From: Niehaus, Virginia <virginia.niehaus@dhhs.nc.gov>
Sent: Wednesday, March 20, 2024 11:25 AM
To: Wiggs, Travis C <travis.wiggs@oah.nc.gov>
Cc: Burgos, Alexander N <alexander.burgos@oah.nc.gov>
Subject: RE: Commission for Public Health-Request for Changes

Hi Travis,

Apologies for the delayed response. We have made the requested change in the attached.

It is great news that you intend to recommend approval. Once you've had an opportunity to review the attached, I will submit the revised rules as instructed below.

Thanks,
Virginia

Virginia R. Niehaus, JD, MPH
Director of Regulatory and Legal Affairs
Division of Public Health
[NC Department of Health and Human Services](#)
Pronouns: she/her/hers

Executive Assistant: [Michelle Zarate](#)

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1 15A NCAC 18A .2518 is readopted with changes as published in 38:11 NCR 724-729 as follows:

2
3 **CHAPTER 18 - ENVIRONMENTAL HEALTH**

4
5 **SUBCHAPTER 18A - SANITATION**

6
7 **SECTION .2500 - PUBLIC SWIMMING POOLS**

8
9 **15A NCAC 18A .2518 CIRCULATION SYSTEM**

10 (a) Public swimming pools ~~Pools~~ shall be equipped with a water circulation system.

11 (b) The water capacity of the circulation system shall be sufficient to clarify and disinfect circulate and filter the entire
12 volume of public swimming pool water four times or more in 24 hours. The water circulation system shall be operated
13 24 hours per day at no more than the maximum velocity allowed under Paragraph (d) of this Rule during the operating
14 dates set out in the permit. ~~season.~~

15 (c) The water circulation system piping shall be designed and installed ~~with the necessary valves and pipes~~ so that
16 the flow from the public swimming pool ~~shall~~ ~~can~~ be from main drains or the surface overflow system. If both main
17 drains and a surface overflow system are used, the ~~The~~ water circulation system piping shall be designed such that the
18 flow of water from the public swimming pool ~~is~~ ~~can~~ be simultaneous from the surface overflow system and the main
19 drains. Skimmer piping constructed after May 1, 2010 shall be sized to handle ~~the maximum flow rate for the required~~
20 ~~number of skimmers, but in no case less than~~ 100 percent of the design flow rate. ~~rate determined by the Registered~~
21 Design Professional in the pool design. Perimeter overflow system piping constructed after May 1, 2010 shall be sized
22 to handle 100 percent of the design flow rate. ~~rate determined by the Registered Design Professional in the pool design.~~
23 ~~The main~~ Main drain piping constructed after May 1, 2010 shall be sized to handle 100 percent of the design flow
24 rate. ~~rate determined by the Registered Design Professional in the pool design.~~

25 (d) Piping shall be designed ~~to reduce friction losses to a minimum and~~ to carry ~~the required quantity of~~ water at a
26 maximum velocity not to exceed six feet per second for suction piping and not to exceed 10 feet per second for
27 discharge ~~piping~~ piping, except for copper pipe where the velocity shall not exceed eight feet per second for discharge
28 piping. ~~second.~~ Piping shall comply with NSF/ANSI Standard 14 Plastics Piping System Components and Related
29 Materials, incorporated by reference, including any subsequent amendments or editions, and available at
30 <http://webstore.ansi.org/> at a cost of one hundred sixty-five dollars (\$165.00). ~~be of non-toxic~~ [material] ~~material,~~
31 ~~resistant to corrosion, and~~ be free of visible water leaks. ~~able to withstand operating pressures.~~ ~~If plastic~~ Public
32 swimming pools constructed after the effective date of this Rule shall use plastic pipe ~~made of is used,~~ a minimum of
33 Schedule 40 PVC. ~~PVC is required.~~ Flexible pipe shall not be ~~used~~ used, except that flexible PVC hoses that meet the
34 requirements of NSF/ANSI/CAN ~~NSF~~ Standard 50 Equipment and Chemicals for Swimming Pools, Spas, Hot Tubs,
35 and Other Recreational Water Facilities, incorporated by reference, including any subsequent amendments or editions,
36 and available at <http://webstore.ansi.org/> at a cost of five hundred eighty dollars (\$580.00) (hereinafter referred to as
37 "NSF Standard 50"), may be used when affixed to spa shells and ~~where~~ rigid pipes do not provide the necessary angles

1 to connect water circulation system components. Exposed pipes and valves shall be identified by a color code with a
2 legend or labels.

3 (e) The water circulation system shall ~~have~~ include a strainer with a basket to prevent hair, lint, and other debris from
4 reaching the pump. ~~A~~ The owner of the public swimming pool shall keep a spare strainer basket onsite at the public
5 swimming pool. shall be provided. Strainers shall be designed for use in pools corrosion-resistant with openings not
6 more than ¼ inch (6.4 mm) in size that provide a free flow area at least four times the cross-section area of the pump
7 suction line and are accessible for daily cleaning.

8 (f) A swimming pool shall have a vacuum cleaning system ~~shall be provided~~ to remove debris and foreign material
9 that settles to the bottom of the swimming pool. ~~Where provided, integral~~ Integral vacuum ports shall be located on
10 the pool wall at least six inches and no greater than 18 inches below the water level. Skimmer vacuums may be used
11 ~~in pools with~~ when connected to two or fewer skimmers that are isolated from the remaining water circulation system
12 pipng. provided the skimmer basket remains in place while the vacuum is in operation. Integral vacuum cleaning
13 systems shall ~~have~~ be provided with valves and protective caps. Integral vacuum ports constructed after May 1, 2010
14 shall have self-closing caps designed to be opened with a tool. Portable vacuum equipment may be used to meet the
15 requirements of this Rule.

16 (g) A flow meter, rate of flow indicator, reading in liters or gallons per minute, shall be installed in accordance with
17 the manufacturer's instructions, on the filtered water [line.] line and located so that the rate of circulation is indicated.
18 The flow meter indicator shall measure ~~be capable of measuring~~ flows that are at least 1½ times the between the
19 minimum circulation turnover rate required in Paragraph (b) of this Rule and the maximum velocity permitted under
20 Paragraph (d) of this Rule design flow rate, [rate determined by the Registered Design Professional in the pool design]
21 and shall be accurate within 10 percent ~~per cent~~ of true flow, flow, and shall be easy to read. The [flow meter] indicator
22 shall be installed in accordance with manufacturers' specifications.

23 (h) A public swimming pool shall have a pump or pumps ~~shall be provided~~ with capacity to recirculate the public
24 swimming pool water four times or more in 24 hours, hours. The pump or pumps shall not need to be primed, [primed
25 or] and shall be so located as to eliminate the need for priming. If the pump or pumps, or suction piping is located
26 above the overflow level of the pool, the pump or pumps shall be self-priming, self-priming, or shall utilize an
27 automated priming device labeled for use in public pools by the manufacturer. The pump or pumps shall be capable
28 of providing a flow adequate for the backwashing of filters. Unless headloss calculations are provided by the designing
29 engineer, Any single speed pump design shall be capable of maintaining required water turnover based on headloss
30 calculations provided by a professional engineer licensed under G.S. Chapter [89C or] 89C, the measurements of a
31 flow meter installed in accordance with the manufacturer's instructions, or an assumed total dynamic head of 65 feet
32 of water. Any variable speed pump or single speed pump utilizing a variable frequency drive shall be capable of
33 maintaining water turnover as required by Paragraph (b) of this Rule based on a pump performance curve provided
34 by the manufacturer and shall maintain the flow rate determined by the Registered Designed Professional in the pool
35 design. Pumps ~~three horsepower or smaller~~ shall be certified by NSF International as meeting NSF Standard 50 (NSF)
36 listed or verified by an independent third-party testing laboratory to meet ~~all applicable~~ provisions of NSF NSF/ANSI
37 Standard 50 applicable to pumps, which is incorporated by reference including any subsequent amendments or

1 ~~editions. Copies may be obtained from NSF International, P.O. Box 130140, Ann Arbor, MI 48113-0140 at a cost of~~
2 ~~one hundred fifty five dollars (\$155.00). Verification conducted by an independent third-party testing laboratory shall~~
3 ~~include testing and in-plant quality control inspections. Larger pumps for which NSF listing is not available shall be~~
4 ~~approved by the Department on a case-by-case basis.~~

5 (i) ~~Inlets.~~ All public swimming pools shall be equipped with water return inlets. The water return inlets shall meet the
6 following requirements:

- 7 (1) ~~Inlets shall be provided and arranged to~~ The water return inlets shall produce a uniform circulation
8 of water and maintain a uniform disinfectant residual throughout the ~~pool.~~ pool;
- 9 (2) ~~The number of inlets for any swimming pool shall be determined based on return water flow.~~ There
10 shall be at least one water return inlet per 20 gallons per minute of return water flow with flow.
11 ~~There shall be a minimum of four water return inlets for any swimming pool.~~ pool; [and]
- 12 (3) ~~Inlets~~ Water return inlets shall be located so that no part of the swimming pool is more ~~than~~ than 25
13 feet of horizontal distance from the nearest water return ~~inlet.~~ inlet; and
- 14 (4) Water return inlets shall be replaced when damaged or missing. ~~Provision shall be made to permit~~
15 ~~adjustment of the flow through each inlet, either with an adjustable orifice or provided with~~
16 ~~replaceable orifices to permit adjustments of the flows.~~

17 (j) ~~Drains.~~ Drains shall not be required in public swimming pools when an alternate method to drain the pool is
18 provided. Public swimming pools constructed without main drains shall be designed with water return inlets positioned
19 to return water uniformly throughout the public swimming pool. Public swimming pools constructed with main drains
20 shall have the main drains installed in accordance with the manufacturer's instructions and meet the following
21 requirements:

- 22 (1) ~~Public Swimming~~ swimming pools with suction main drains shall be provided with at least one or
23 more unblockable drains or two or more main drain outlets drains which are located at the deepest
24 section of the pool on a horizontal plane and connected by symmetrical "T" piping. Except when
25 unblockable drains are used, Connecting piping between main drains shall be sized and configured
26 such that blocking any one drain will not result in flow through the remaining drain covers
27 cover/grates exceeding the cover/grate manufacturer's safe flow rating while handling 100 percent
28 of the pump's maximum pump-system flow. ~~The drains shall be capable of permitting the pool to~~
29 ~~be emptied completely.~~ Dual main drains connected by "T" piping shall be spaced not more
30 than 30 feet apart, and not more than 15 feet away from the side walls of the pool, walls. Drains
31 Main Drains shall be separated by at least three feet measured from the centers of the drain covers
32 or installed with one main drain on a horizontal plane and one main drain on a vertical plane.
33 cover/grates. Main drains with two or more outlets with a common suction line shall not be equipped
34 with valves that allow the outlets to be isolated. ~~This shall not preclude construction of a public~~
35 ~~swimming pool without main drains where water is introduced at the bottom of the pool and~~
36 ~~removed through a surface overflow system designed to handle 100 percent of the design flow rate.~~
37 Provision shall be made to completely drain pools constructed without drains. Public swimming

1 pools constructed prior to May 1, 2010 with a single drain or multiple drains closer than three feet
2 apart shall protect against bather entrapment with an unblockable drain cover or a secondary method
3 of preventing bather entrapment in accordance with Rule .2539 of this Section.

4 (2) Drain outlets shall comply with the ANSI/APSP/ICC-16 2017 American National Standard
5 ASME/ANSI A112.19.8 2007 for Suction Outlet Fittings Assemblies (SOFA) for Use in Swimming
6 Pools, Wading Pools, Spas, and Hot Tubs, Tubs which is hereby incorporated by reference
7 reference, including any subsequent amendments, amendments or editions, and successor standards
8 under the Virginia Graeme Baker Pool and Spa Safety Act (15 U.S.C. 8001 et seq.). Copies available
9 at <https://webstore.ansi.org/> at a cost of one hundred sixty-five ~~dollars.~~ dollars (\$165.00). may be
10 obtained from ASME, P.O. Box 2300, Fairfield, NJ 07007-2300 at a cost of fifty three dollars
11 (\$53.00).

12 (3) Public swimming ~~pools~~ pool drains ~~constructed after May 1, 2010~~ shall comply with ~~ANSI/APSP-~~
13 ~~7-2006 American National Standard for~~ ANSI/PHTA/ICC-7 2020 American National Standard for
14 Suction Entrapment Avoidance in Swimming Pools, Wading Pools, Spas, Hot Tubs and Catch
15 Basins, Basins which is hereby incorporated by reference reference, including any subsequent
16 amendments and or editions, and editions. Copies may be obtained available at
17 <https://webstore.ansi.org> at a cost of one hundred and sixty-five dollars (\$165.00) (hereinafter
18 referred to as "ANSI/PHTA/ICC-7"). ~~from APSP, 2111 Eisenhower Avenue, Alexandria, VA 22314~~
19 ~~at a cost of three hundred fifty dollars (\$350.00).~~

20 (k) ~~Surface Overflow Systems.~~ (1) Swimming ~~Public swimming pools shall be provided with~~ have a surface overflow
21 system that is an integral part of the water circulation system and that consists of a built-in-place perimeter overflow
22 system, a pre-fabricated perimeter overflow system, or recessed automatic surface skimmers. The surface overflow
23 system shall comply with the following:

24 (2)(1) ~~Whenever~~ When a public swimming pool uses a built-in-place perimeter overflow system or a pre-
25 fabricated perimeter overflow ~~system~~ system, the public swimming pool may be designed with the
26 operating water level, perimeter overflow system, and deck at the same elevation. The perimeter
27 overflow system shall: ~~is provided, it shall be designed and installed as follows:~~

28 (A) ~~The system shall be~~ Be capable of handling 100 percent of the ~~circulation~~ flow rate
29 determined by the Registered Design Professional in the pool design without flooding the
30 overflow troughs; troughs being flooded;

31 (B) ~~A surge capacity shall be provided either in the system or by use of~~ Be capable of handling
32 a water surge tank; and the total surge capacity shall be at least equal to one gallon per
33 square ~~foot~~ ~~foot~~, (41L or forty-one liters per square ~~meter~~ ~~meter~~, ~~meter~~) of swimming
34 pool water surface ~~area;~~ ~~area~~. A surge tank may be used to meet this requirement;

35 (C) ~~The~~ Be capable of maintaining the water level of the swimming pool shall ~~be maintained~~
36 above the level of the overflow rim of the perimeter ~~overflow~~ ~~overflows,~~ ~~system~~, except
37 for the time ~~intervals of no more~~ ~~needed to transfer all of the water that may be in the surge~~

1 capacity back into the swimming pool after a period of use; provided that this transfer time
2 shall not be greater than 20 minutes; minutes when water is transferred between a surge
3 tank and the public swimming pool;

4 (D) ~~When installed the~~ Be constructed so the dimensional tolerance of the overflow rim shall
5 not exceed ¼ inch (6.4 mm) as measured between the highest point and the lowest point of
6 the overflow rim;

7 (E) ~~During quiescence, the overflow system shall be~~ Be capable of providing ~~continuously and~~
8 ~~automatically~~ continuous and automatic a skimming ~~action to~~ of the water during
9 quiescence; at the surface of the swimming pool;

10 (F) ~~The overflow troughs shall be~~ Be constructed so that the overflow troughs are installed
11 continuously completely around the perimeter of the public swimming pool, except at
12 steps, recessed ~~ladders~~ ladders, and ~~stairs;~~ stairs, or except when used in combination with
13 recessed automatic surface skimmers; and

14 (G) ~~The~~ Provide a hand-hold on the exposed surfaces of the overflow trough. ~~trough shall be~~
15 ~~capable of providing a firm and safe hand hold; and~~

16 (H) ~~The overflow trough shall be cleanable and shall be of such configuration as to minimize~~
17 ~~accidental injury.~~

18 (3)(2) ~~Whenever a recessed~~ When a public swimming pool uses recessed automatic surface ~~skimmer or~~
19 ~~skimmers~~ skimmers, are installed, they [as an overflow system,] the recessed automatic surface
20 skimmers shall be designed and constructed in accordance with ~~Section 8 of NSF Standard #50~~ 50
21 requirements for water circulation system components for swimming pools, spas, or hot ~~tubs.~~ tubs
22 and Recessed automatic surface skimmers shall be installed as follows:

23 (A) The rate of water flowing ~~flow through rate~~ through any one recessed automatic surface
24 skimmer shall be ~~between~~ no less than 20 gallons per minute and no more than the
25 maximum flow the skimmer is certified for to handle under NSF Standard ~~Number~~ 50;

26 (B) There shall be at least one recessed automatic surface skimmer for each 400 square feet of
27 water surface area of the swimming pool or fraction thereof;

28 (C) When two or more recessed automatic surface skimmers are required, they shall be ~~so~~
29 ~~located as to minimize interference with each other and as to insure proper and complete~~
30 to enable skimming of the entire swimming ~~pool~~ pools water surface; ~~and~~

31 (D) Skimmers shall not protrude into the water of the public swimming pool. Pools using
32 recessed automatic ~~Automatic~~ surface ~~skimmer or~~ skimmers without a perimeter overflow
33 system shall be installed so that the operating water level of the pool is no more than nine
34 inches below the level of the finished deck. ~~deck level so that the deck can be used as a~~
35 handhold.

36 (I) Where flooded suction on the pump is not possible to prevent cavitation and loss of prime, skimmers shall have a
37 device or other protection to prevent air entrainment in the suction line. Skimmer equalizer lines shall be in compliance

1 with ANSI/PHTA/ICC-7 or disabled. Skimmer The inlet to the equalizer line lines shall be disabled by plugging the
2 line under the skimmer basket and where the equalizer pipe exits the pool shell. provided with a grate.

3 ~~(m) Nothing in this Section shall preclude the use of a roll out or deck level type of swimming pool. Such designs~~
4 ~~shall conform to the general provisions relating to surface overflow systems.~~

5 ~~(m)~~(m) Nothing in this Section shall preclude the use of a surface overflow system that combines both a perimeter
6 overflow system and a recessed automatic surface skimmer or ~~skimmers.~~ skimmers that meet the requirements of this
7 Rule.

8

9 *History Note: Authority G.S. 130A-282;*

10 *Eff. May 1, 1991;*

11 *Amended Eff. May 1, 2010; February 1, 2004; April 1, 1999; January 1, 1996; July 1, 1992. 1992;*

12 *Readopted Eff. November 1, 2024.*

Burgos, Alexander N

Subject: FW: Commission for Public Health-Request for Changes

From: Wiggs, Travis C <travis.wiggs@oah.nc.gov>
Sent: Tuesday, March 19, 2024 3:01 PM
To: Niehaus, Virginia <virginia.niehaus@dhhs.nc.gov>
Cc: Burgos, Alexander N <alexander.burgos@oah.nc.gov>
Subject: RE: Commission for Public Health-Request for Changes

Good afternoon,

Once the minor change below is made to .2518, I intend to recommend approval of all the revised rules.

Please submit the revised rules via email to oah.rules@oah.nc.gov no later than 5pm on March 22, 2024. The electronic copy must be saved as the official rule name (XX NCAC XXXX). Please include me on the email.

Thanks,

Travis C. Wiggs
Rules Review Commission Counsel
Office of Administrative Hearings
Telephone: 984-236-1929
Email: travis.wiggs@oah.nc.gov