

# MEMORANDUM

Agenda Item No. 7(B)

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<b>TO:</b>	Honorable Chairman Jose “Pepe” Diaz and Members, Board of County Commissioners	<b>DATE:</b>	(Second Reading: 3-2-21) December 15, 2020
<b>FROM:</b>	Geri Bonzon-Keenan County Attorney	<b>SUBJECT:</b>	Ordinance relating to underwater pool lighting; amending section 8-31 of the Code; enacting local technical amendments to the 2020 Florida Building Code; re-enacting maximum voltage limitations for underwater pool lighting for private and public swimming pools and bathing places

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The accompanying ordinance was prepared and placed on the agenda at the request of Prime Sponsor Commissioner Sally A. Heyman and Co-Sponsor Chairman Jose “Pepe” Diaz.



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**Geri Bonzon-Keenan**  
County Attorney

GBK/smm

# Memorandum



**Date:** March 2, 2021

**To:** Honorable Chairman Jose "Pepe" Diaz  
and Members, Board of County Commissioners

**From:** Daniella Levine Cava  
Mayor

A handwritten signature in blue ink that reads "Daniella Levine Cava".

**Subject:** Fiscal Impact Statement for Ordinance Relating to Underwater Pool Lighting

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The implementation of this ordinance will not have a fiscal impact to Miami-Dade County. Approval of this item is not anticipated to create a fiscal impact to the County, as the proposed changes will not require additional staffing resources nor generate additional operational expenses.

A handwritten signature in black ink that reads "Jimmy Morales".

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Jimmy Morales  
Chief Operations Officer


FIS01521 202430

# Memorandum



**Date:** March 2, 2021

**To:** Honorable Chairman Jose "Pepe" Diaz  
and Members, Board of County Commissioners

**From:** Daniella Levine Cava  
Mayor 

**Subject:** Social Equity Statement for Ordinance Relating to Underwater Pool Lighting for Private and Public Swimming Pools and Bathing Places

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The proposed ordinance relating to Private and Public Swimming Pools and Bathing Places amends Section 8-31 of the Code of Miami-Dade County (Code) enacting Local Technical Amendments to the Florida Building Code 7<sup>th</sup> Edition (2020) pertaining to maximum voltage limitations for underwater pool lighting in both the incorporated and unincorporated areas of Miami-Dade County.

In order to lessen the potential for electrocution, the proposed ordinance provides a local technical amendment to the Florida Building Code to require low voltage underwater lighting in newly built public and private pools, and for permitted construction work in existing public and private pools.

This proposed ordinance will make a valuable contribution in maximizing the health and safety of all County residents and visitors by minimizing the potential for serious electrical shocks and electrocution in both public and private recreational swimming pools.



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Jimmy Morales  
Chief Operations Officer

202430



**MEMORANDUM**  
(Revised)

**TO:** Honorable Chairman Jose “Pepe” Diaz  
and Members, Board of County Commissioners

**DATE:** March 2, 2021

**FROM:**   
Gen Bonzon-Keenan  
County Attorney

**SUBJECT:** Agenda Item No. 7(B)

Please note any items checked.

- “3-Day Rule” for committees applicable if raised
- 6 weeks required between first reading and public hearing
- 4 weeks notification to municipal officials required prior to public hearing
- Decreases revenues or increases expenditures without balancing budget
- Budget required
- Statement of fiscal impact required
- Statement of social equity required
- Ordinance creating a new board requires detailed County Mayor’s report for public hearing
- No committee review
- Applicable legislation requires more than a majority vote (i.e., 2/3’s present \_\_\_\_, 2/3 membership \_\_\_\_, 3/5’s \_\_\_\_, unanimous \_\_\_\_, CDMP 7 vote requirement per 2-116.1(3)(h) or (4)(c) \_\_\_\_, CDMP 2/3 vote requirement per 2-116.1(3)(h) or (4)(c) \_\_\_\_, or CDMP 9 vote requirement per 2-116.1(4)(c)(2) \_\_\_\_ ) to approve
- Current information regarding funding source, index code and available balance, and available capacity (if debt is contemplated) required

Approved \_\_\_\_\_ Mayor  
Veto \_\_\_\_\_  
Override \_\_\_\_\_

Agenda Item No. 7(B)  
3-2-21

ORDINANCE NO. \_\_\_\_\_

ORDINANCE RELATING TO UNDERWATER POOL LIGHTING; AMENDING SECTION 8-31 OF THE CODE OF MIAMI-DADE COUNTY, FLORIDA; ENACTING LOCAL TECHNICAL AMENDMENTS TO THE 2020 FLORIDA BUILDING CODE; RE-ENACTING MAXIMUM VOLTAGE LIMITATIONS FOR UNDERWATER POOL LIGHTING FOR PRIVATE AND PUBLIC SWIMMING POOLS AND BATHING PLACES; PROVIDING SEVERABILITY, INCLUSION IN THE CODE, AND AN EFFECTIVE DATE

**WHEREAS**, this Board desires to maximize the health and safety of County residents and visitors, and to minimize the potential for electrocution in swimming pools both public and private; and

**WHEREAS**, the 2010 Florida Building Code did not require low voltage lighting in private swimming pools; and

**WHEREAS**, the 2010 Florida Building Code was still in effect in 2014, and that year there were three serious injuries and one fatality in Miami-Dade County as a result of electrical shock and electrocution caused by underwater swimming pool lighting, as reported by local news media; and

**WHEREAS**, to lessen the potential for lethal electrocution and electrical shock injuries, this Board adopted Ordinance No. 14-95 on October 7, 2014, which enacted local technical amendments to the 2010 Florida Building Code, to require low voltage lighting (1) in newly built private swimming or recreational bathing pools that have underwater lighting installed, and (2) in existing private pools with underwater lighting when permitted construction work is done after the initial pool construction; and

**WHEREAS**, chapter 553, Florida Statutes, provides that all local technical amendments to the building code expire with each new edition of the Florida Building Code, unless readopted; and

**WHEREAS**, the Florida Building Code is revised, amended, and updated with new editions every three to four years; and

**WHEREAS**, a new Florida Building Code was adopted in 2014, and like the 2010 edition, the 2014 Florida Building Code did not require low voltage lighting in private swimming pools; and

**WHEREAS**, to continue to protect the public from serious injuries and deaths from electrocutions and electrical shocks in private swimming pools, this Board re-enacted local technical amendments to the 2014 Florida Building Code by adopting Ordinance No. 15-27 on May 5, 2015 reimposing the underwater pool lighting voltage limitations; and

**WHEREAS**, the 2017 Florida Building Code eliminated the requirement for low voltage underwater lights in public pools, thereby removing provisions which mitigated the potential for lethal electrocution and electric shock in public settings; and

**WHEREAS**, on October 2, 2018, this Board adopted Ordinance No. 18-121 which extended the County's local technical amendments from private swimming pools to both public and private swimming pools to continue to mitigate the potential for lethal electrocution and electric shock in private and public swimming pools; and

**WHEREAS**, the recently published 2020 Florida Building Code does not contain the low voltage limitations imposed by this Board's prior local technical amendments adopted in Ordinance No. 18-121; and

**WHEREAS**, the absence of the low voltage limitations in the 2020 Florida Building Code now necessitates enactment of a new ordinance to maintain the local technical amendments to mitigate the potential for lethal electrocution and electric shock; and

**WHEREAS**, the absence of any lethal electrocution and electric shock in swimming pools in Miami-Dade County since 2014, when this Board first enacted its local technical amendments imposing low voltage limitations for pool lighting, demonstrates the effectiveness of this Board's local technical amendments to the Florida Building Code; and

**WHEREAS**, this Board wishes to maintain the heightened public safety resulting from the local technical amendments that impose low voltage limitations for underwater lighting systems in both private and public pools,

**BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA:**

**Section 1.** Incorporates and adopts the foregoing recitals as fully set forth herein.

**Section 2.** Section 8-31 of the Code of Miami-Dade County, Florida, is hereby amended to read as follows:<sup>1</sup>

**Sec. 8-31. - Local technical amendments to Florida Building Code.**

(A) The County hereby adopts the following local technical amendments to Chapter 6 (Plumbing) of the Florida Building Code.

\* \* \*

(C) ~~[[The County hereby adopts the following local technical amendment to Chapter 42 (Residential) of the Florida Building Code.]]~~

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<sup>1</sup> Words stricken through and/or [[double bracketed]] shall be deleted. Words underscored and/or >>double arrowed<< constitute the amendment proposed. Remaining provisions are now in effect and remain unchanged.

~~[[E4206.4 Underwater luminaires. The design of an underwater luminaire supplied from a branch circuit by way of a transformer or power supply meeting the requirements of Section E4206.1, shall be such that, where the fixture is properly installed without a ground fault circuit interrupter, there is no shock hazard with any likely combination of fault conditions during normal use (not relamping). The installation of the ground fault circuit interrupter shall be such that there is no shock hazard with any likely fault-condition combination that involves a person in a conductive path from any ungrounded part of the branch circuit or the luminaire to ground. Compliance with this requirement shall be obtained by the use of a listed underwater luminaire and by installation of a listed transformer or power supply for luminaires operating at not more than the low voltage contact limit. Luminaires that depend on submersion for safe operation shall be inherently protected against the hazards of overheating when not submerged. [680.23(A)(1), (A)(3), (A)(7) and (A)(8)]]]~~

~~[[E4206.4.1 Maximum voltage. The maximum voltage for each luminaire in any private swimming or recreational bathing pools shall not exceed the Low Voltage Contact Limit, which is defined as a voltage not exceeding the following values:~~

- ~~(1) — 15 volts (RMS) for sinusoidal alternating current~~
  - ~~(2) — 21.2 volts peak for nonsinusoidal alternating current~~
  - ~~(3) — 30 volts continuous direct current~~
  - ~~(4) — 12.4 volts peak for direct current that is interrupted at a rate of 10 to 200 Hertz~~
- ~~The maximum incandescent lamp size shall be 300 watts.]]]~~

~~[[~~(D)~~]] The County hereby adopts the following local technical amendment to Chapter 4 (Building) of the Florida Building Code.~~

~~[[454.1.4.1 Electrical equipment and wiring. Electrical equipment wiring and installation, including the bonding and grounding of pool components shall comply with Chapter 27 of the Florida Building Code, Building. Outlets supplying pool pump motors connected to single phase 120-volt through 240-volt branch circuits, whether by receptacle or by direct connection shall be provided with ground fault circuit interrupter protection for personnel.~~



~~The maximum voltage for each underwater luminaire shall not exceed the Low Voltage Contact Limit, which is defined as a voltage not exceeding the following values:~~

- ~~(1) 15 volts (RMS) for sinusoidal alternating current~~
  - ~~(2) 21.2 volts peak for nonsinusoidal alternating current~~
  - ~~(3) 30 volts continuous direct current~~
  - ~~(4) 12.4 volts peak for direct current that is interrupted at a rate of 10 to 200 Hertz~~
- ~~The maximum incandescent lamp size shall be 300 watts.]]~~

**>>454.1.10.4.1 Ground-fault circuit interrupter protection for personnel.**

Outlets supplying repaired, replaced, altered, or relocated pool pump motors connected to single-phase, 120-volt through 240-volt branch circuits, whether by receptacle or by direct connection, and outlets supplying all other repaired, replaced, altered, or relocated electrical equipment connected to single-phase, 120-volt through 240-volt branch circuits, rated 15- and 20-amperes, whether by receptacle or by direct connection, shall be provided with ground-fault circuit interrupter protection for personnel.

The maximum voltage for each underwater luminaire shall not exceed the Low Voltage Contact Limit, which is defined as a voltage not exceeding the following values:

- (1) 15 volts (RMS) for sinusoidal alternating current;
- (2) 21.2 volts peak for nonsinusoidal alternating current;
- (3) 30 volts continuous direct current;
- (4) 12.4 volts peak for direct current that is interrupted at a rate of 10 to 200 Hertz.

The maximum incandescent lamp size shall be 300 watts.<<

**454.2.16 Electrical.**

Electrical equipment wiring and installation, including the bonding and grounding of pool components, shall comply with Chapter 27 of the Florida Building Code, Building. Outlets supplying pool pump motors connected to single-phase 120-volt through 240-volt branch circuits, whether by receptacle or by direct connection, and outlets supplying other electrical equipment >>connected to single-phase, 120 volt through 240 volt branch circuits, rated 15 or 20

amperes, whether by receptacle or by direct connection, << shall be provided with ground-fault circuit interrupter protection for personnel.

>>The maximum voltage for each underwater luminaire shall not exceed the Low Voltage Contact Limit, which is defined as a voltage not exceeding the following values:

- (1) 15 volts (RMS) for sinusoidal alternating current;
- (2) 21.2 volts peak for nonsinusoidal alternating current;
- (3) 30 volts continuous direct current;
- (4) 12.4 volts peak for direct current that is interrupted at a rate of 10 to 200 Hertz.

The maximum incandescent lamp size shall be 300 watts.<<

**Section 3.** If any section, subsection, sentence, clause or provision of this ordinance is held invalid, the remainder of this ordinance shall not be affected by such invalidity.

**Section 4.** It is the intention of the Board of County Commissioners, and it is hereby ordained that the provisions of this ordinance, including any sunset provision, shall become and be made a part of the Code of Miami-Dade County, Florida. The sections of this ordinance may be renumbered or relettered to accomplish such intention, and the word "ordinance" may be changed to "section," "article," or other appropriate word.

**Section 5.** This ordinance shall become effective ten (10) days after the date of enactment unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this Board.

PASSED AND ADOPTED:

Approved by County Attorney as  
to form and legal sufficiency:


Prepared by:

Eduardo W. Gonzalez

Prime Sponsor: Commissioner Sally A. Heyman  
Co-Sponsor: Chairman Jose "Pepe" Diaz