CITY OF EL PASO, TEXAS
DEPARTMENT HEAD'S SUMMARY REQUEST FOR COUNCIL ACTION (RCA)

DEPARTMENT: DEVELOPMENT SERVICES

AGENDA DATE: INTRODUCTION: MARCH 25, 2008
PUBLIC HEARING: APRIL 1, 2008

CONTACT PERSON/PHONE: LARRY F. NICHOLS, DEVELOPMENT SERVICES, (915) 541-4557

DISTRICT(S) AFFECTED: ALL

SUBJECT:
An Ordinance amending Title 18 (Building and Construction), Chapter 18.10 (Residential Code) Section 18.10.310 (Appendix G, Swimming Pools, Spas, and Hot Tubs) of the El Paso City Code by adding barrier requirements for residential swimming pools, spas, and hot tubs and entrapment protection for residential swimming pool and spa suction outlets; providing for a one year period to bring existing swimming pools, spas and hot tubs into compliance; with penalties not to exceed two-thousand dollars ($2,000.00) per day per violation as provided in Section 18.02.107 of the El Paso City Code.

BACKGROUND / DISCUSSION:
Discussion and direction from the Health & Public Safety Legislative Review Committee on January 30, 2008

PRIOR COUNCIL ACTION:

N/A

AMOUNT AND SOURCE OF FUNDING:

N/A

BOARD / COMMISSION ACTION:

N/A

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*********************REQUIRED AUTHORIZATION**********************

LEGAL: (if required) _____ **FINANCE:** (if required) _____

DEPARTMENT HEAD: _____
Larry F. Nichols, Building Permits & Inspections Deputy Director

OTHER: _____
(Example: if RCA is initiated by Purchasing, client department should sign also)
Information copy to appropriate Deputy City Manager

APPROVED FOR AGENDA:

CITY MANAGER: _____ **DATE:** _____

ORDINANCE NO.: _____

AN ORDINANCE AMENDING TITLE 18 (BUILDING AND CONSTRUCTION), CHAPTER 18.10 (RESIDENTIAL CODE) SECTION 18.10.310 (APPENDIX G, SWIMMING POOLS, SPAS AND HOT TUBS) OF THE EL PASO CITY CODE BY ADDING BARRIER REQUIREMENTS FOR RESIDENTIAL SWIMMING POOLS, SPAS AND HOT TUBS AND ENTRAPMENT PROTECTION FOR RESIDENTIAL SWIMMING POOL AND SPA SUCTION OUTLETS; PROVIDING FOR A ONE YEAR PERIOD TO BRING EXISTING SWIMMING POOLS, SPAS AND HOT TUBS INTO COMPLIANCE; WITH PENALTIES NOT TO EXCEED TWO-THOUSAND DOLLARS ($2,000.00) PER DAY PER VIOLATION AS PROVIDED IN SECTION 18.02.107 OF THE EL PASO CITY CODE.

WHEREAS, present barrier and entrapment prevention measures exist concerning residential swimming pools, spas and hot tubs to prevent drowning deaths and serious injuries; and

WHEREAS, drowning and serious injury in residential swimming pools, spas and hot tubs continue to occur; and

WHEREAS, additional requirements governing barriers and entrapment protection are needed for residential swimming pools, spas and hot tubs to provide protection against accidental drowning or serious injury resulting from improper swimming pool, spa or hot tub access.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF EL PASO:

Section 1. That Section 18.10.310 of the El Paso City Code, Appendix G - Swimming Pools, Spas and Hot Tubs of the International Residential Code 2003 is repealed and replaced with the following Appendix G 2008 – Swimming Pools, Spas and Hot Tubs.

18.10.310 Appendix G 2008 – Adopted and Amended - Swimming Pools, Spas and Hot Tubs.

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18.10.310.101 SECTION AG101

AG101.1 General. The provisions of this appendix shall control the design and construction of swimming pools, spas and hot tubs installed in or on the lot of a one- and two-family dwelling.

18.10.310.102 SECTION AG102 DEFINITIONS

AG102.1 General. For the purposes of these requirements, the terms used shall be defined as follows and as set forth in Chapter 2, International Residential Code Definitions.

ABOVE-GROUND/ON-GROUND POOL. See "Swimming pool."

BARRIER. A fence, wall, building wall or combination thereof which completely surrounds the swimming pool and obstructs access to the swimming pool.

HOT TUB. See "Swimming pool."

IN-GROUND POOL. See "Swimming pool."

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RESIDENTIAL. That which is situated on the premises of a detached one- or two-family dwelling or a one-family townhouse not more than three stories in height.

SPA, NONPORTABLE. See "Swimming pool."

SPA, PORTABLE. A nonpermanent structure intended for recreational bathing, in which all controls, water-heating and water-circulating equipment are an integral part of the product.

SWIMMING POOL. Any structure intended for swimming or recreational bathing that contains water over 24 inches (610mm) deep. This includes in-ground,

aboveground and on-ground swimming pools, hot tubs, spas, and fixed in place wading pools.

SWIMMING POOL, INDOOR. A swimming pool which is totally contained within a structure and surrounded on all four sides by walls of said structure.

SWIMMING POOL, OUTDOOR. Any swimming pool which is not an indoor pool.

18.10.310.103 SECTION AG103SWIMMING POOLS

AG103.1 In-ground pools. In-ground pools shall be designed and constructed in conformance with ANSI/NSPI-5 as listed in Section 18.10.310.108 (AG108).

AG103.2 Above-ground and on-ground pools. Above-ground and on-ground pools shall be designed and constructed in conformance with ANSI/NSPI-4 as listed in Section 18.10.310.108 (AG108).

18.10.310.104 SECTION AG104 SPAS AND HOT TUBS

AG104.1 Permanently installed spas and hot tubs. Permanently installed spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-3 as listed in Section 18.10.310.108 (AG108).

AG104.2 Portable spas and hot tubs. Portable spas and hot tubs shall be designed and constructed in conformance with ANSI/NSPI-6 as listed in Section 18.10.310.108 (AG108).

18.10.310.105 SECTION AG105 BARRIER REQUIREMENTS

AG105.1 Application. The provisions of this chapter shall control the design of barriers for residential swimming pools, spas and hot tubs. These design controls are intended to provide protection against potential drowning and near-drowning by restricting access to swimming pools, spas and hot tubs.

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The swimming pool barrier detail requirements of this section 18.10.310.105 (AG105) apply to all new swimming pools and to all additions alterations, repairs or replacements made to existing swimming pool barriers installed on or after May 1, 2008 or for which final inspection approval is obtained on or after May 1, 2008, All swimming pools installed prior to May 1, 2008 or for which final inspection approval is obtained prior to May 1, 2008, shall meet all barrier requirements in section 18.10.310.105 (AG105) on or before May 1, 2009, except as provided in Section 18.10.310.105.5 (AG105.5).

AG105.2 Outdoor swimming pool. It is the responsibility of the property owner and any other person in responsible charge of a swimming pool to ensure that the required swimming pool barrier, including all gates, doors, locks, latches and other portions of the barrier are maintained safe and in good working order at all times. No person shall alter or remove any portion of a swimming pool barrier except to repair, reconstruct or replace the barrier in compliance with the provisions of this section. All barriers shall be installed, inspected, and approved prior to plastering and filling with water or as otherwise provided in this Code. An outdoor swimming pool, including an in-ground, aboveground or on-ground pool, hot tub or spa shall be provided with a barrier which shall comply with the following:

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1. The top of the barrier shall be at least 5 feet (1524 mm) above grade measured on the side of the barrier which faces away from the swimming pool. The maximum clearance at the bottom of the barrier may be increased to 4 inches (102 mm) when grade is a solid, non-removable surface. The maximum vertical clearance between grade and the bottom of the barrier shall be 2 inches (51 mm) measured on the side of the barrier which faces away from the swimming pool. Where the top of the pool structure is above grade, such as an aboveground pool, the barrier may be at ground level, such as the pool structure, or mounted on top of the pool structure. Where the barrier is mounted on top of the pool

structure, the maximum vertical clearance between the top of the pool structure and the bottom of the barrier shall be 4 inches (102 mm).

2. Openings in the barrier shall not allow passage of a 4-inch-diameter (102 mm) sphere.
3. Solid barriers which do not have openings, such as masonry or stonewall shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints.
4. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches (1143 mm), the horizontal members shall be located on the swimming pool side of the fence. Spacing between vertical members shall not exceed 1.75 inches (44 mm) in width. Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.
5. Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches (1143 mm) or more, spacing between vertical members shall not exceed 4 inches (102mm). Where there are decorative cutouts within vertical members, spacing within the cutouts shall not exceed 1.75 inches (44 mm) in width.
6. Maximum mesh size for chain link fences shall be a 2.25-inch (57 mm) square. The mesh shall not be less than 11 gage.
7. Where the barrier is composed of diagonal members, such as a lattice fence, the maximum opening formed by the diagonal members shall not be more than 1.75 inches (44 mm).
8. Access gates shall comply with the requirements of Section AG105.2, Items 1 through 7, and shall be equipped to accommodate a locking device. Pedestrian access gates shall open outward away from the pool and shall be self-closing and

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have a self-latching device. Gates other than pedestrian access gates need not be self-closing or self-latching and shall be equipped with a padlock or similar locking device. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the gate, the release mechanism and openings shall comply with the following:

8.1 The release mechanism shall be located on the pool side of the gate at least 3 inches (76 mm) below the top of the gate, and

8.2 The gate and barrier shall have no opening greater than 0.5 inch (12.7 mm) within 18 inches (457mm) of the release mechanism.

9. Where a wall of a dwelling serves as part of the barrier one of the following conditions shall be met:

9.1 The pool shall be equipped with a key operated powered safety cover in compliance with ASTM F1346. The keyed pool cover switch shall be located not less than 54 inches (1372 mm) above the floor or adjacent ground level and where the entire pool cover can be visually inspected; or

9.2 All doors leading from the dwelling unit or guest room, directly into a yard with a swimming pool shall swing away from the pool, shall be self closing and self latching and shall be equipped with a locking device. The release mechanism for the latch or secondary locking device shall be located not less than 54 inches (1372 mm) above the floor. A locking latch which uses a key, electronic opener or integral combination lock may be located at any height on the

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door. Sliding doors shall not form any part of a required barrier unless the self-closing and self-latching mechanism is specifically approved.

9.3 Windows used for emergency escape or rescue which face into a yard with a swimming pool shall be equipped with a latching device located not less than 54 inches (1372 mm) above the floor. All other operable dwelling unit windows facing into a yard with a swimming pool shall be equipped with a screwed in place wire mesh screen, a keyed lock that prevents opening the window more than 4 inches (102 mm) or a latching device not less than 54 inches (2372 mm) above the floor.

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10. Where an aboveground pool structure is used as a barrier or where the barrier is mounted on top of the pool structure and the means of access is a ladder or steps, then:

10.1 The ladder or steps shall be capable of being secured in an inaccessible position with a lock located 54 inches (1372 mm) above the adjacent ground level, or

10.2 The ladder or steps shall be surrounded by a barrier which meets the requirements of Section AG105.2, Items 1 through 9. When the ladder or steps are secured, locked or removed, any opening created shall not allow the passage of a 4-inch-diameter (102 mm) sphere.

11. Where there are natural barriers between properties, such as lakes and solid rock vertical cliffs not less than 10 feet (3048 mm) in height and a slope of not less than 1 horizontal to 10 vertical, fence barriers shall not be required between properties where the natural

barriers exist. To ensure proper natural barriers are maintained, barrier fences shall project a minimum of 24 inches (610 mm) into lakes to where there is at least 24 inches (610 mm) depth from the lake surface to the top of the submerged horizontal member or the lake bottom when there is no submerged horizontal member. There shall be no horizontal member less than 45 inches (1143 mm) above the lake surface. Where the solid rock cliff extends above the property, the intersection barriers with the solid rock cliff shall not allow passage of a 4-inch diameter (102 mm) sphere.

AG105.3 Indoor swimming pool. All walls surrounding an indoor swimming pool shall comply with Section 18.10.310.105 (AG105.2, Item 9).

AG105.4 Prohibited locations. Barriers shall be located not less than 45 inches (1143 mm) measured horizontally from permanent structures, equipment or similar objects.

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AG105.5 Barrier exceptions.

5.1 Portable spas and hot tubs with a safety cover that complies with ASTM F 1346, as listed in section 18.10.310.108 (AG 108), shall be exempt from the provisions of this Appendix G 2008.

5.2 For spas and hot tubs, a hard safety cover which is latched or locked may be used, provided the spa or hot tub is not more than 8 feet (2.44m) in width at any point.

5.2.1 Existing swimming pools located on a single family dwelling property on or before May 1, 2008 need not comply with 18.10.310.105.2 paragraph 9 (AG105.2.9) provided all occupants of the dwelling are at least six years of age or older. All other portions of the swimming pool barrier separating properties shall be installed as required by section 18.10.310.105.2 (AG105.2).

5.2.2 This exception shall expire and the required permanent barrier shall be installed between the dwelling and the swimming pool whenever:

5.2.2.1 One or more children under six years of age become an occupant of the property.

5.2.2.2 There is a change of use or character to the primary building occupancy on the property.

5.2.2.3 A new pool or spa is being installed on the same property or additions are made to the existing spa and or swimming pool.

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18.10.310.106 SECTION AG106 ENTRAPMENT PROTECTION FOR SWIMMING POOL AND SPA SUCTION OUTLETS

AG106.1 Suction Entrapment Avoidance. Pools, spas, hot tubs, catch basins and other similar bather accessible bodies of water associated with swimming pool construction shall be designed to produce circulation throughout the body of water and provide means to protect against user suction entrapment.

AG106.2 Surface skimming or perimeter overflow system. To avoid suction entrapment, fully submerged suction outlets (main drains) shall not be required in swimming pools, wading pools, spas, hot tubs and catch basins. Surface skimming or perimeter overflow system shall be permitted in lieu of fully submerged suction outlet fittings and shall provide 100% of the required system flow.

AG106.3 Fully submerged suction outlets (main drains). Fully submerged manufactured suction outlets (main drains) for use in swimming pools, wading pools, hot tubs and catch basins shall be listed by a nationally recognized testing laboratory in accordance with ASME/ANSI A112.19.9M.

Exception: Custom designed suction outlet fittings certified by a licensed professional engineer that conform to Section 3 General requirements of ASME/ANSI A 112.19.8M

AG 106.4 Methods of entrapment avoidance. Entrapment avoidance of fully submerged suction outlets can be achieved by one of the following methods:

AG106.4.1 Dual Drains. A minimum of two (2) suction outlets shall be provided for each pump or pumps in the suction outlet system, separated by a minimum of three feet (3') [91.44 cm] measured from center to center of the suction pipes or located on two (2) different planes; i.e. one (1) on the bottom and one (1) on the vertical wall, or one (1) each on two (2) separate vertical walls. These suction outlets shall be plumbed such that water is drawn through tem simultaneously through a common line to the system. Each Suction outlet fitting shall be rated for the maximum system flow.

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AG106.4.2 Channel Drain System. One or more channel gates shall be acceptable as protection against suction entrapment if they are 3 inches or greater in width and 31 inches or greater in length and fastened to prevent removal as specified in ASME/ANSI A1122.19.8M.

AG106.4.3 Gravity flow system. A Gravity Flow system shall be acceptable as protection against suction entrapment if it has one or more submerged suction outlet(s) with approved cover/grates in any combination fed by gravity into a collection tank vented to atmosphere. However a modulating float valve allowing direct suction is not permitted.

AG106.4.4 Combination Inlet/Outlet Fixtures for Swim Jets. Combination Inlet/Outlet Fixtures shall be acceptable as protection against suction entrapment for a Swim Jet system not related to the filtration system, if they are manufactured to have their own dedicated

pump(s) and the suction outlet and the return are located in a single fitting.

AG106.4.5 Venturi Debris Removal Systems. Venturi Debris Removal Systems shall be acceptable as protection against suction entrapment if they are intended remove debris through a single floor mount suction outlet where lot pressure is created by the entrainment of water within a deck mount canister that is not directly or indirectly connected to a pump's suction. The single action outlet shall have an approved cover/gate.

AG106.5 Shallow Water Suction Outlets. Where all suction fittings are located less than 24 inches below normal operating water level, one of the following shall be required:

5.1 gravity flow system
5.2 one (1) additional drain
5.3 vent system to atmosphere
5.4 suction vacuum release device tested and approved for the purpose by a nationally recognized testing laboratory in accordance with ASME A112. 19.17.

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AG106.6 Wall Vacuum Fittings. Where provided, the vacuum cleaner fitting(s) shall be located in an accessible position(s) at least 6 inches and not greater than 18 inches below the water level and shall comply with IAPMO SPS4.

18.10.310.107 SECTION **AG107 ABBREVIATIONS**

AG107.1 General.

ANSI - American National Standards Institute, 11 West 42nd Street, New York, NY 10036

ASTM - American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103

NSPI - National Spa and Pool Institute, 2111 Eisenhower Avenue, Alexandria, VA 22314

UL - Underwriters Laboratories, Inc., 333 Springsteen Road, Northbrook, Illinois 60062-2096

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18.10.310.108 SECTION **AG108 STANDARDS**

AG108.1 General.

IAPMO: IAPMO SPS-4-200 Special use Suction Fittings for Swimming pools, spas and hot tubs (for suction side automatic swimming pool cleaners).

ANSI/NSPI: ANSI/NSPI-3-99 Standard for Permanently Installed Residential Spas AG104.1

ANSI/NSPI-4-99 Standard for Above-ground/On-ground Residential Swimming Pools AG103.2

ANSI/NSPI-5-99 Standard for Residential In-ground Swimming Pools AG103.1

ANSI/NSPI-5-2003 Standard for Residential Portable Spas AG 104.2

ANSI/ASME A112.19.8M-1987 Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, Hot Tubs and Whirlpool Bathing Appliances AG106.2

ASTM - ASTM F 1346-91 (1996) Performance Specification for Safety Covers and Labeling Requirements for all Covers for Swimming Pools, Spas and Hot Tubs AG105.2, AG105.5

ASME- ASME A112.19.17 Manufacturers Safety Vacuum Release Systems (SVRS) for Residential and Commercial Swimming Pool, Spa, Hot Tub and Wading Pool AG106.3

Section 2. Except as herein amended, Title 18 of the El Paso City Code shall remain in full force and effect.

ADOPTED THIS _____ day of _____ 2008.

CITY OF EL PASO

_____
John F. Cook, Mayor

ATTEST:

_____
Richarda Duffy Momsen
City Clerk

APPROVED AS TO FORM:

Mark Shoesmith
Assistant City Attorney

APPROVED AS TO CONTENT:

Larry F. Nichols
Deputy Director,
Development Services Department

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