







ANSI/APSP/ICC 15 ENERGY EFFICIENCY COMPLIANCE INFORMATION FOR RESIDENTIAL SWIMMING POOLS

PROJECT NAME: AND ADDRESS	Zahnle	CONTRACTOR NAME AND ADDRESS:	Brenda Chila		
	219 SW Plantation Ter.		4404 NW 13 St.		
	Lake City, FL 32025		Gainesville, FL 32609		
OWNER:	Ralph Zahnle	CONTRACTOR PHONE:	(352) 375-7800	DATE:	9/24/2013

This information sheet was prepared by the APSP-15 Residential Swimming Pool and Spa Energy Efficiency Standard Writing Committee of the Association of Pool and Spa Professionals (APSP). It is not part of the American National Standard ANSI/APSP/ICC-15 2011 but is included for information only. Contractors should acquire and comply with the ANSI/APSP/ICC-15 2011 standard which can be purchased at www.apsp.org

1. §5.2.1: Calculated pool volume

- a. Gallons: 23,936 ; or
b. Calculated Gallons: 640 (surface area) X 5.0 (average depth) X 7.48 (gal/ft³) = 23,936

2. §5.2.1: Calculated maximum filtration flow rate

(Pool volume ÷ 360 or 36gpm whichever is larger)

3. §5.2.2: Auxiliary Pool Load: ☐ Yes, ☒ No?

(Enter the highest "auxiliary pool load" to be powered by the swimming pool filtration pump. Do not add auxiliary pool load flow rates together, only the highest is used.)

4. Calculated maximum flow rate

(Item 2 or item 3, whichever is larger.)

5. §5.5.1: Pipe sizing:

a. Minimum suction pipe diameter

(Enter the smallest pipe size from Table 1 with a 6 fps flow capacity the same or more than item 4.)

b. Minimum suction branch pipe diameter

(Calculate: Item 4. 0 (gpm) ÷ Branch Pipes 1 (quantity) = branch flow rate 0 (gpm).

Enter the smallest pipe size from Table 1 with a 6 fps flow capacity the same or more than the calculated suction branch flow rate.)

c. Minimum return pipe diameter

(Enter the smallest pipe size from Table 1 with a 8 fps flow capacity the same or more than item 4.)

d. Minimum return branch pipe diameter

(Calculate: Item 4. 0 (gpm) ÷ Branch Pipes 1 (quantity) = branch flow rate 0 (gpm).

Enter the smallest pipe size from Table 1 with a 8 fps flow capacity the same or more than the calculated return branch flow rate.)

6. §5.4.1: Filter type and size:

a. Filter type: (Cartridge, DE, Sand)

b. Minimum filter area

(Calculate: item 4. 0 (gpm) ÷ filter factor 0.375)

Filter factors: Cartridge=0.375, Sand=15, Diatomaceous Earth=2

7. §5.4.2: Backwash valve: ☐ Yes, ☒ No?

(When using a backwash valve, enter result of item 5c or 2 inches whichever is larger)

Table 1

Pipe Size:	1.5"	2"	2.5"	3"	3.5"	4"	5"	6"
Nominal GPM @ 6 fps	38	63	90	138	185	238	374	540
Nominal GPM @ 8 fps	51	84	119	184	247	317	499	720

8. Pump selection:

§5.3.2.1: Pools 17,000 gallons or less, select pump* from the database with a Curve-A gpm flow equal to item 2 or less.

§5.3.2.2: Pools 17,001 gallons or more, select pump* from the database with a Curve-C gpm flow equal to item 2 or less. *Multi-speed pumps must have one speed listed that satisfies this requirement.

a. Pump model

b. Pump flow

(§5.3.2.1, 5.3.2.2: Applicable Curve A or C gpm flow listed in database)

1.	<u>23,936</u>	gallons
2.	<u>66</u>	gpm
3.		gpm
4.	<u>0</u>	gpm
5a.	<u>1.5</u>	inches
5b.	<u>1.5</u>	inches
5c.	<u>1.5</u>	inches
5d.	<u>1.5</u>	inches
6a.	<u>Cartridge</u>	
6b.	<u>0.0</u>	sq. ft.
7.	<u>2.0</u>	inches
8a.	<u>Variable Speed</u>	
8b.	<u>66</u>	gpm

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Component	Section	Requirements	Check
Heaters	4.4.1.1	Heater has no pilot light	<input type="checkbox"/>
	4.4.1.2	Readily accessible on-off switch mounted outside of the heater	<input type="checkbox"/>
	4.3.1.3	No electric resistance heating unless for inground spa with tight fitting cover with R-6 insulation, or for pool with 60% of documented pool heating from on-site solar or recovered energy.	<input type="checkbox"/>
	4.3.2	Heater efficiency: gas/oil fired heater efficiency at least 78%, heat pump COP at least 4.0	<input type="checkbox"/>
Pool systems	5.1.1	Pool filter pump listed in database	<input checked="" type="checkbox"/>
	5.3.1	Pool filter pump with total horsepower 1.0 or more is multi-speed	<input checked="" type="checkbox"/>
	5.3.3	Multi-speed pump controller programmed to default to the filtration flow rate when no auxiliary pool loads are operating within 24 hours and programmed with temporary override capability for servicing.	<input checked="" type="checkbox"/>
	5.3.4	Single-speed pump controller capable of operating pump during off-peak electric demand.	<input type="checkbox"/>
	5.5.2	Pipe before pump has at least 4 diameters of straight pipe.	<input type="checkbox"/>
	5.5.3	System installed with solar, or setup for the future addition of solar heating equipment by installing 18 inches of horizontal or vertical pipe after the filter and before a heater, or built-in or built-up connections, or dedicated pipe to and from the pool.	<input type="checkbox"/>
	5.5.6	Directional inlets for mixing pool water.	<input type="checkbox"/>