

Lightwave Logic, Inc.  
Form 4  
October 27, 2009

**FORM 4**

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
SMITH THOMAS P

(Last) (First) (Middle)  
17800 N. 85TH STREET  
(Street)

SCOTTSDALE, AZ 85255

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol  
Lightwave Logic, Inc. [LWLG]

3. Date of Earliest Transaction  
(Month/Day/Year)  
10/23/2009

4. If Amendment, Date Original Filed(Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

Director  10% Owner  
 Officer (give title below)  Other (specify below)

6. Individual or Joint/Group Filing(Check Applicable Line)  
 Form filed by One Reporting Person  
 Form filed by More than One Reporting Person

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Ownership (Instr. 4)
			Code	V	Amount or (D) Price		
Common Stock (1)	10/24/2009		M		150,000 (1) \$ 1	900,000	D
Common Stock	10/26/2009		S		2,000 \$ 2.57	898,000	D
Common Stock	10/26/2009		S		2,500 \$ 2.56	895,500	D
Common Stock	10/26/2009		S		1,150 \$ 2.54	894,350	D
Common Stock	10/26/2009		S		500 \$ 2.52	893,850	D
	10/27/2009		S		4,500	889,350	D



## Explanation of Responses:

- \* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).
  - \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) Acquired restricted stock pursuant to exercise of warrant.
  - (2) Acquired warrant pursuant to a bona fide gift transaction.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.