

Lightwave Logic, Inc.
Form 4
October 27, 2009

FORM 4

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

OMB APPROVAL

OMB Number: 3235-0287
Expires: January 31, 2005
Estimated average burden hours per response... 0.5

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 |

Edgar Filing: Lightwave Logic, Inc. - Form 4

| | | | | | | | | |
|--------------|------------|--|---|-------|------|----|---------|---|
| Common Stock | | | | | \$ | | | |
| | | | | | 2.53 | | | |
| Common Stock | 10/27/2009 | | S | 1,500 | D | \$ | 887,850 | D |
| | | | | | 2.55 | | | |
| Common Stock | 10/27/2009 | | S | 2,500 | D | \$ | 885,350 | D |
| | | | | | 2.52 | | | |

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.

SEC 1474
(9-02)

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5) | | | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | 7. Title and Underlying Security (Instr. 3 and 4) |
|--|--|--------------------------------------|--|--------------------------------|---|---------|-----|--|-----------------|---|
| | | | | | V | (A) | (D) | Date Exercisable | Expiration Date | |
| Warrant (Right to Buy) ⁽²⁾ | \$ 1 | 10/23/2009 | | G | V | 150,000 | | 10/24/2007 | 10/24/2009 | Common Stock |
| Warrant (Right to Buy) | \$ 1 | 10/24/2009 | | M | | 150,000 | | 10/24/2007 | 10/24/2009 | Common Stock |

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|--|---------------|-----------|---------|-------|
| | Director | 10% Owner | Officer | Other |
| SMITH THOMAS P 17800 N. 85TH STREET SCOTTSDALE, AZ 85255 | | X | | |

Signatures

/s/Thomas P. Smith 10/27/2009

**Signature of Reporting Person Date

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.