

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| OMB APPROVAL | |
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| 1. Name and Address of Reporting Person * <u>Petrarca Mark A</u> (Last) (First) (Middle) A. O. SMITH CORPORATION 11270 WEST PARK PLACE (Street) MILWAUKEE WI 53224 (City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol <u>SMITH A O CORP [AOS]</u> | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>Senior Vice Pres. - H.R. & P.A</u> |
| | 3. Date of Earliest Transaction (Month/Day/Year) <u>07/20/2012</u> | |
| | | 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> 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 Indirect Beneficial Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|------------|-----------|---|--|---|
| | | | Code | V | Amount | (A) or (D) | Price | | | |
| Common Stock | 07/20/2012 | | M | | 22,050 | A | \$19.003 | 46,172 | D | |
| Common Stock | 07/20/2012 | | S | | 5,500 | D | \$51 | 40,672 | D | |
| Common Stock | 07/20/2012 | | S | | 4,612 | D | \$51.01 | 36,060 | D | |
| Common Stock | 07/20/2012 | | S | | 2,638 | D | \$51.02 | 33,422 | D | |
| Common Stock | 07/20/2012 | | S | | 1,200 | D | \$51.03 | 32,222 | D | |
| Common Stock | 07/20/2012 | | S | | 1,400 | D | \$51.04 | 30,822 | D | |
| Common Stock | 07/20/2012 | | S | | 1,500 | D | \$51.05 | 29,322 | D | |
| Common Stock | 07/20/2012 | | S | | 700 | D | \$51.06 | 28,622 | D | |
| Common Stock | 07/20/2012 | | S | | 800 | D | \$51.07 | 27,822 | D | |
| Common Stock | 07/20/2012 | | S | | 100 | D | \$51.08 | 27,722 | D | |
| Common Stock | 07/20/2012 | | S | | 300 | D | \$51.09 | 27,422 | D | |
| Common Stock | 07/20/2012 | | S | | 100 | D | \$51.0902 | 27,322 | D | |
| Common Stock | 07/20/2012 | | S | | 200 | D | \$51.1 | 27,122 | D | |
| Common Stock | 07/20/2012 | | S | | 500 | D | \$51.11 | 26,622 | D | |
| Common Stock | 07/20/2012 | | S | | 300 | D | \$51.12 | 26,322 | D | |
| Common Stock | 07/20/2012 | | S | | 500 | D | \$51.13 | 25,822 | D | |
| Common Stock | 07/20/2012 | | S | | 100 | D | \$51.14 | 25,722 | D | |
| Common Stock | 07/20/2012 | | S | | 100 | D | \$51.15 | 25,622 | D | |
| Common Stock | 07/20/2012 | | S | | 100 | D | \$51.18 | 25,522 | D | |
| Common Stock | 07/20/2012 | | S | | 100 | D | \$51.2 | 25,422 | D | |
| Common Stock | 07/20/2012 | | S | | 300 | D | \$51.21 | 25,122 | D | |
| Common Stock | 07/20/2012 | | S | | 100 | D | \$51.22 | 25,022 | D | |
| Common Stock | 07/20/2012 | | S | | 200 | D | \$51.24 | 24,822 | D | |
| Common Stock | 07/20/2012 | | S | | 100 | D | \$51.25 | 24,722 | D | |
| Common Stock | 07/20/2012 | | S | | 100 | D | \$51.31 | 24,622 | D | |
| Common Stock | 07/20/2012 | | S | | 300 | D | \$51.32 | 24,322 | D | |
| Common Stock | 07/20/2012 | | S | | 200 | D | \$51.33 | 24,122 | D | |

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

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| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | Table of Derivative Securities Acquired, Disposed of, or Beneficially Owned | 4. Transaction Code (Instr. 8) | 5. Title of Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | 6. Date Exercisable and Expiration Date (Month/Day/Year) | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | | | | | | |
|--|--|--------------------------------------|---|--------------------------------|--|--|---|--|--|---|--|-----|--------|---|--|--|--|
| 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. Title of Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | 6. Date Exercisable and Expiration Date (Month/Day/Year) | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | | | | | | |
| | | | | Code | V | (A) | (D) | Date Exercisable | Expiration Date | Title | Amount or Number of Shares | | | | | | |
| Employee Stock Options (Right to Buy) | \$19.003 | 07/20/2012 | | M | | | 22,050 | (1) | 02/09/2019 | Common Stock | 22,050 | \$0 | 25,300 | D | | | |

Explanation of Responses:

1. The employee stock options were granted on 02/09/2009 under the A. O. Smith Combined Incentive Compensation Plan, a transaction exempt under Rule 16b-3. The options become exercisable in three annual installments of 1/3 of the award starting on 02/09/2010.

Remarks:

James F. Stern, Attorney-in-Fact for Mark A. Petrarca 07/23/2012

** Signature of Reporting Person Date

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

* 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).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

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 Number.