

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	
OMB Number:	3235-0287
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1. Name and Address of Reporting Person* <u>RETTLER STEVE W</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 President - CD</u>
	3. Date of Earliest Transaction (Month/Day/Year) <u>10/20/2009</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	10/20/2009		M		9,650	A	\$15.135	17,345	D	
Common Stock	10/20/2009		M		11,200	A	\$26.88	28,545	D	
Common Stock	10/20/2009		S		75	D	\$43.5	28,470	D	
Common Stock	10/20/2009		S		322	D	\$43.51	28,148	D	
Common Stock	10/20/2009		S		3	D	\$43.53	28,145	D	
Common Stock	10/20/2009		S		600	D	\$43.54	27,545	D	
Common Stock	10/20/2009		S		2,900	D	\$43.55	24,645	D	
Common Stock	10/20/2009		S		100	D	\$43.555	24,545	D	
Common Stock	10/20/2009		S		700	D	\$43.56	23,845	D	
Common Stock	10/20/2009		S		2,100	D	\$43.57	21,745	D	
Common Stock	10/20/2009		S		100	D	\$43.5775	21,645	D	
Common Stock	10/20/2009		S		300	D	\$43.58	21,345	D	
Common Stock	10/20/2009		S		200	D	\$43.585	21,145	D	
Common Stock	10/20/2009		S		300	D	\$43.59	20,845	D	
Common Stock	10/20/2009		S		100	D	\$43.5925	20,745	D	
Common Stock	10/20/2009		S		100	D	\$43.595	20,645	D	
Common Stock	10/20/2009		S		1,550	D	\$43.6	19,095	D	
Common Stock	10/20/2009		S		500	D	\$43.61	18,595	D	
Common Stock	10/20/2009		S		100	D	\$43.62	18,495	D	
Common Stock	10/20/2009		S		600	D	\$43.66	17,895	D	
Common Stock	10/20/2009		S		400	D	\$43.68	17,495	D	
Common Stock	10/20/2009		S		100	D	\$43.7	17,395	D	
Common Stock	10/20/2009		S		100	D	\$43.72	17,295	D	
Common Stock	10/20/2009		S		100	D	\$43.73	17,195	D	
Common Stock	10/20/2009		D		850	D	\$43.75	16,345	D	
Common Stock	10/20/2009		S		1,550	D	\$43.76	14,795	D	
Common Stock	10/20/2009		S		905	D	\$43.78	13,890	D	
Common Stock	10/20/2009		S		495	D	\$43.79	13,395	D	
Common Stock	10/20/2009		S		200	D	\$43.8	13,195	D	

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	10/20/2009		S		1,100	D	\$43.82	12,095	D	

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 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) ⁽¹⁾	\$15.135	10/20/2009		M			9,650	10/08/2002	10/09/2011	Common Stock	9,650	\$0	35,200	D	
Employee Stock Options (Right to Buy) ⁽²⁾	\$26.88	10/20/2009		M			11,200	10/10/2003	10/11/2012	Common Stock	11,200	\$0	24,000	D	

Explanation of Responses:

- Granted on 10/09/2001 under the A. O. Smith Corporation Long-Term Executive Incentive Compensation Plan, a transaction exempt under Rule 16b-3.
- Granted on 10/11/2002 under the A. O. Smith Combined Executive Incentive Compensation Plan, a transaction exempt under Rule 16b-3.

Remarks:

James F. Stern, Attorney-in-Fact for Steve W. Rettler

10/21/2009

** 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.