SMITH A O CORP

Act (however, see the Notes).

Form SC 13G/A February 13, 2009 SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549 Schedule 13G **Under the Securities Exchange Act of 1934** (Amendment No.:2)\* Name of issuer: AO SMITH CORP Title of Class of Securities: Common Stock CUSIP Number: 831865209 Date of Event Which Requires Filing of this Statement: December 31, 2008 Check the appropriate box to designate the rule pursuant to which this Schedule is filed: (X) Rule 13d-1(b) () Rule 13d-1(c) () Rule 13d-1(d) \*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the

(Continued on the following page(s))			

13G

CUSIP No.: 831865209	
1. NAME OF REPORTING PERSON S.S. OR I.R.S. IDENTIFICATION NO. 0	OF ABOVE PERSON
THE VANGUARD GROUP, INC 23	-1945930
2. CHECK THE APPROPRIATE [LINE]	IF A MEMBER OF A GROUP
A.	B. <u>X</u>
3. SEC USE ONLY	
4. CITIZENSHIP OF PLACE OF ORGA	NIZATION
Pennsylvania	
(For questions 5-8, report the number of sl	nares beneficially owned by each reporting person with:)
5. SOLE VOTING POWER	
30,434	
6. SHARED VOTING POWER	
7. SOLE DISPOSITIVE POWER	

847,265
8. SHARED DISPOSITIVE POWER
9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
847,265
10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES
N/A
11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9
3.87%
12. TYPE OF REPORTING PERSON
IA
-

SECURITIES AND EXCHANGE COMMISSION

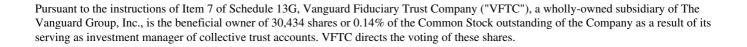
# Washington, D.C. 20549 SCHEDULE 13G Under the Securities Act of 1934 Check the following [line] if a fee is being paid with this statement N/A Item 1(a) - Name of Issuer: AO SMITH CORP <u>Item 1(b) - Address of Issuer's Principal Executive Offices:</u> P O BOX 245009 MILWAUKEE WI 53224-9509 Item 2(a) - Name of Person Filing: THE VANGUARD GROUP, INC. - 23-1945930 <u>Item 2(b)</u> Address of Principal Business Office or, if none, residence: 100 Vanguard Blvd. Malvern, PA 19355 Item 2(c) Citizenship: Pennsylvania

Item 2(d) - Title of Class of Securities:
Common Stock
<u>Item 2(e) - CUSIP Number</u>
831865209
Item 3 - Type of Filing:
This statement is being filed pursuant to Rule 13d-1. An Investment Advisor in accordance with §240.13-d 1(b)(1)(ii)(E)
<u>Item 4 - Ownership:</u>
(a) Amount Beneficially Owned:
847,265
(b) Percent of Class:
3.87%

(c) Number of shares as to which such person has:	
(i) sole power to vote or direct to vote: <b>30,434</b>	
(ii) shared power to vote or direct to vote:	
(iii) sole power to dispose of or to direct the disposition of: <b>847,265</b>	
	(iv) shared power to dispose or to direct the disposition of:
Comments:	
<u>Item 5 - Ownership of Five Percent or Less of a Class:</u>	
Not Applicable	
Item 6 - Ownership of More Than Five Percent on Behalf of Another Pe	rson:
Not applicable	
Item 7 - Identification and Classification of the Subsidiary Which Acqui	red The Security Being Reported on by the Parent Holding Company
See Attached Appendix A	
<u>Item 8 - Identification and Classification of Members of Group:</u>	
Not applicable	
Item 9 - Notice of Dissolution of Group:	

Not applicable
Item 10 - Certification:
By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired in the ordinary course of business and were not acquired for the purpose of and do not have the effect of changing or influencing the control of the issuer of such securities and were not acquired in connection with or as a participant in any transaction having such purpose or effect.
Signature
After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.
Date: <u>2-13-2009</u>
By /s/ F. William McNabb III*
F. William McNabb III
President and Chief Executive Officer

#### Appendix A



By /s/ F. William McNabb III\*

F. William McNabb III

President and Chief Executive Officer

\*By: /s/ Glenn Booraem

Glenn Booream, pursuant to a Power of Attorney filed on February 9, 2009, see File Number 811-3916, Incorporated by Reference