SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of

the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): February 13, 2007

A. O. Smith Corporation

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction

1-475 (Commission File Number) 39-0619790 (IRS Employer

Identification No.)

of incorporation)

P.O. Box 245008, Milwaukee, Wisconsin 53224-9508

(Address of principal executive offices, including zip code)

(414) 359-4000

(Registrant s telephone number)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communication pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- " Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 204.14a-12)
- " Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- " Pre-commencement communications pursuant to Rule 13-e4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 8.01 Other Events

On February 19, 2007, A. O. Smith Corporation (the Company) issued a news release announcing that the Company s Board of Directors authorized a Stock Repurchase Program in the amount of one million shares of the Company s Common stock. A copy of the Company s news release is attached as Exhibit 99.1 to this Current Report on Form 8-K (this Current Report) and is incorporated by reference herein.

Item 9.01. Financial Statements and Exhibits

The following exhibit is being filed herewith:

(99.1) News Release of A. O. Smith Corporation dated February 19, 2007.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: February 19, 2007

A. O. SMITH CORPORATION

By: /s/ W. David Romoser W. David Romoser

Senior Vice President, General Counsel and Secretary

A. O. SMITH CORPORATION

Exhibit Index to Current Report on Form 8-K Dated February 19, 2007.

Exhibit

Number Description

99.1 Press Release of A. O. Smith Corporation dated February 19, 2007.