UNITED STATES 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): January 3, 2005

THE DOW CHEMICAL COMPANY

(Exact name of registrant as specified in its charter)

Delaware 1-3433 38-1285128 (State or other (Commission File (IRS Employer jurisdiction of Number) Identification No.) incorporation)

2030 Dow Center, Midland, Michigan 48674 (Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (989) 636-1000

Not applicable (Former name or former address, if changed since last report.)

Item 8.01 Other Events

E.I. du Pont de Nemours and Company issued a press release on January 3, 2005 containing a joint announcement by DuPont and The Dow Chemical Company. The text of that press release is contained in the attached Exhibit.

Item 9.01 Financial Statements and Exhibits

The following exhibit is filed as a part of this report:

Exhibit No. 99

Dow Chemical Elects to Exercise Option Related to DuPont Dow Elastomers Joint Venture

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 thereunto duly authorized.

Dated: January 5, 2005 THE DOW CHEMICAL COMPANY

By: <u>/S/ FRANK H. BROD</u>
Name: Frank H. Brod
Title: Vice President and
Controller

EXHIBIT INDEX

EXHIBIT NO. 99 DESCRIPTION

Dow Chemical Elects to Exercise Option Related to DuPont Dow Elastomers Joint Venture