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): June 30, 2004

MISSISSIPPI CHEMICAL CORPORATION

(Exact name of Registrant as specified in its charter)

Mississippi (State or other jurisdiction of incorporation) **001-12217** (Commission File Number)

64-0292638 (I.R.S. Employer Identification Number)

3622 Highway 49 East Yazoo City, Mississippi (Address of principal executive offices)

39194 (Zip code)

Registrant's telephone number, including area code: (662) 746-4131

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

Item 8.01. Other Events.

Monthly Operating Reports for June 1 through June 30, 2004; July 1 through July 31, 2004; and August 1 through August 31, 2004.

On May 15, 2003, Mississippi Chemical Corporation and its domestic subsidiaries (collectively, the "Debtors") filed voluntary petitions for relief under Chapter 11 of Title 11 of the United States Code in the United States Bankruptcy Court for the Southern District of Mississippi. In connection with such filing, the Debtors are required to file monthly operating reports with the United States Trustee and the Bankruptcy Court. Attached hereto as Exhibits 99.1, 99.2, and 99.3 are the monthly operating reports for the periods June 1 through June 30, 2004; July 1 through July 31, 2004; and August 1 through August 31, 2004, respectively.

Item 9.01. Financial Statements and Exhibits.

(c) Exhibits.

Exhibit <u>Description</u> Number

- 99.1 Monthly Operating Report for the period from June 1 through June 30, 2004.
- 99.2 Monthly Operating Report for the period from July 1 through July 31, 2004.
- 99.3 Monthly Operating Report for the period from August 1 through August 31, 2004.

SIGNATURE

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.

MISSISSIPPI CHEMICAL CORPORATION

By: /s/ Timothy A. Dawson Name: Timothy A. Dawson Title: Senior Vice President and Chief Financial Officer

Date: September 29, 2004

EXHIBIT INDEX

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